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No. 6.

FUNCTIONAL SCOLIOSIS.

BY

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This case was admitted into the Montreal General Hospital, January 15th, 1907, under the care of Dr. Shirres to whom I am indebted for permission to publish the following report.

E. B., a female, single, aged 22, complained of curvature of the spine with pain in the dorsal region, increased by movement. Prominence of the right hip was noticed with pain extending downwards through the hip, thigh, and calf. There was lameness in walking with stiffness in the right hip joint, and an apparent shortening of the right leg.

Personal History.—She was born in Manchester, England, in 1885. Throughout childhood she always enjoyed good health. In 1899, when she was 14 years old, while playing in a field she fell from the top of a load of hay, landing on her back with such force that she was stunned for some time. The same day she was able to run about again. During the following two years she did not notice any bad effects from her accident.

In 1901, she left the Old Country for Canada. One stormy day, while at sea, she slipped and fell down the companion-way from the saloon to the main deck. Her back was severely bruised and remained stiff for several days.

From this time up to the beginning of the present illness there was never any pain or soreness of the spine. During this time she worked as a general servant. One morning in 1903, she first felt a severe pain in the calf of the right leg. It was not of long duration and did not interfere with her duties. For the next two-and-a-half years the pain was frequently present but always limited to the calf of the right leg.

In the summer of 1906, she went through several months of severe moral and physical strain. Her physical condition was finally relieved by a successful operation for abortion, but the anxiety had been a great drain on her nervous system, and it was from this time that she steadily grew worse.

The pains in the calf of the right leg increased in severity, and then extended up to the hip. In the latter part of September, 1906, she began to attend the Out-Door Department of the Royal Victoria Hospital.

For the next three weeks she was under treatment, but the pain gradually became constant and so severe, as to finally make work impossible, and in October, 1906, she entered the Hospital. She received constant treatment throughout October and November, 1906, and was greatly relieved. In December, 1906, the spine was found to be deformed. She left the Hospital on January 7, 1907, her condition being about the same as at the time of this report.

Her condition, on admission to the Montreal General Hospital, on January 15th, 1907, was that of a well nourished intelligent girl of 22 years. The skin and mucous membranes were normal, the bowels regular, and menstrual periods normal. Weight was 128 lb., states she has lost 34 lb. in the last year. Heart and lungs are normal; also temperature, pulse, and respiration and the urine. When standing up a marked curvature of the spine was observed, the body was bent forwards and to the right. There was a great prominence of the left hip. The pelvis was tilted up on the left side. The weight of the body was carried mostly on the left leg which was straight, the right being flexed at the knee. Her walk was slow, careful and shuffling in character.

When getting up on the table for examination great difficulty was noticed. She lowered herself slowly till she reclined on the right side. Her actions all showed carefulness in guarding her back and left hip.

A dorsal decubitus was impossible owing to the prominent and and painful condition of the spine. The right leg could not be fully extended owing to the stiffness in the hip-joint with pain and fulness in the groin.

Examination of the spine showed a lateral and backward curvature to the right, most prominent in the lower dorsal region. There was no localised tenderness but a general hyperæsthesia over all the spinous processes.

The left hip showed a marked prominence accentuated by the back being bent to the right. The pelvis was tilted up to the left side.

Passive manipulations of hip joint showed free and easy movements in all directions.

The right hip was flat in comparison with the left. There was stiffness and rigidity in the joint, and a fulness painful to palpation in the groin. On attempting full extension of the thigh there was pain and limitation of movement. Abduction was also limited and caused pain; but flexion, adduction and rotation were free and painless. The general condition of the body was healthy, and the limbs were of equal size and length.

Reflexes.—The organic tendon and superficial reflexes normal with exception of the pharyngeal which was slightly diminished.

Sensation.—Subjectively, severe pain was complained of about the mid-dorsal region, also pain in the right hip and down the back of right thigh and leg. The most severe pain was felt in the right leg between the knee and the ankle. This was constant in character and generally localised over the anterior tibial region. Occasionally there would be an exacerbation of the pain, but this could usually be relieved by pressure over the upper part of the tibialis anticus. At times the pain would be most severe in the lower part of the right leg and the foot. When this was the case pressure beneath the exterior malleolus relieved it.

Objectively, there was general hyperæsthesia over the whole spine, and marked tenderness on deep palpation over the course of the sciatic, but there was no suggestion of Kernig's sign. To heat and cold, sensation was slightly diminished in the right leg, but through the rest of the body it was normal to touch, pain, heat and cold. The electrical sense was normal.

During the latter part of this examination the patient had been lying on her left side. When she got up and stood on the floor I was surprised to see the right leg perfectly straight and supporting the weight of the body, the right hip prominent, the pelvis being tilted up on this side, and back inclined slightly forward and to the left. This was exactly opposite to her previous condition. After persisting for a few moments there was a gradual change to the former state. When questioned about this she stated that, when she lay on the left side the right hip was pushed out and was very painful, but this lasted only a short time.

The following photographs illustrate these two positions.

The one to the right, No. I. shows the usual condition. After lying on the floor on her left side for twenty minutes, the right hip became the more prominent and remained so long enough to obtain the second photograph, No. II.

Special Senses.—Taste, smell and hearing normal. Eyes: pupils were equal and active to light and accommodation. The visual fields showed bilateral concentric contraction of the colour fields. This condition is most marked in the right eye. The fundi were normal. The perimeter chart of January 18th, 1907, here reproduced shows the condition three days after admission.

The chart of January 30th, 1907, No. II illustrates the improved condition twelve days later.

Musculature.—The limbs are of equal size and well-developed. The power in the left leg and thigh is normal. In the right it is difficult to determine owing to the pain produced in the hip by voluntary movement, but there is no reason to expect any impairment of power. The result obtained from this examination suggest then, either Potts' disease associated with morbus coxæ, or a functional condition.

A skiagraph of the right hip was taken. This showed the joint to be normal.

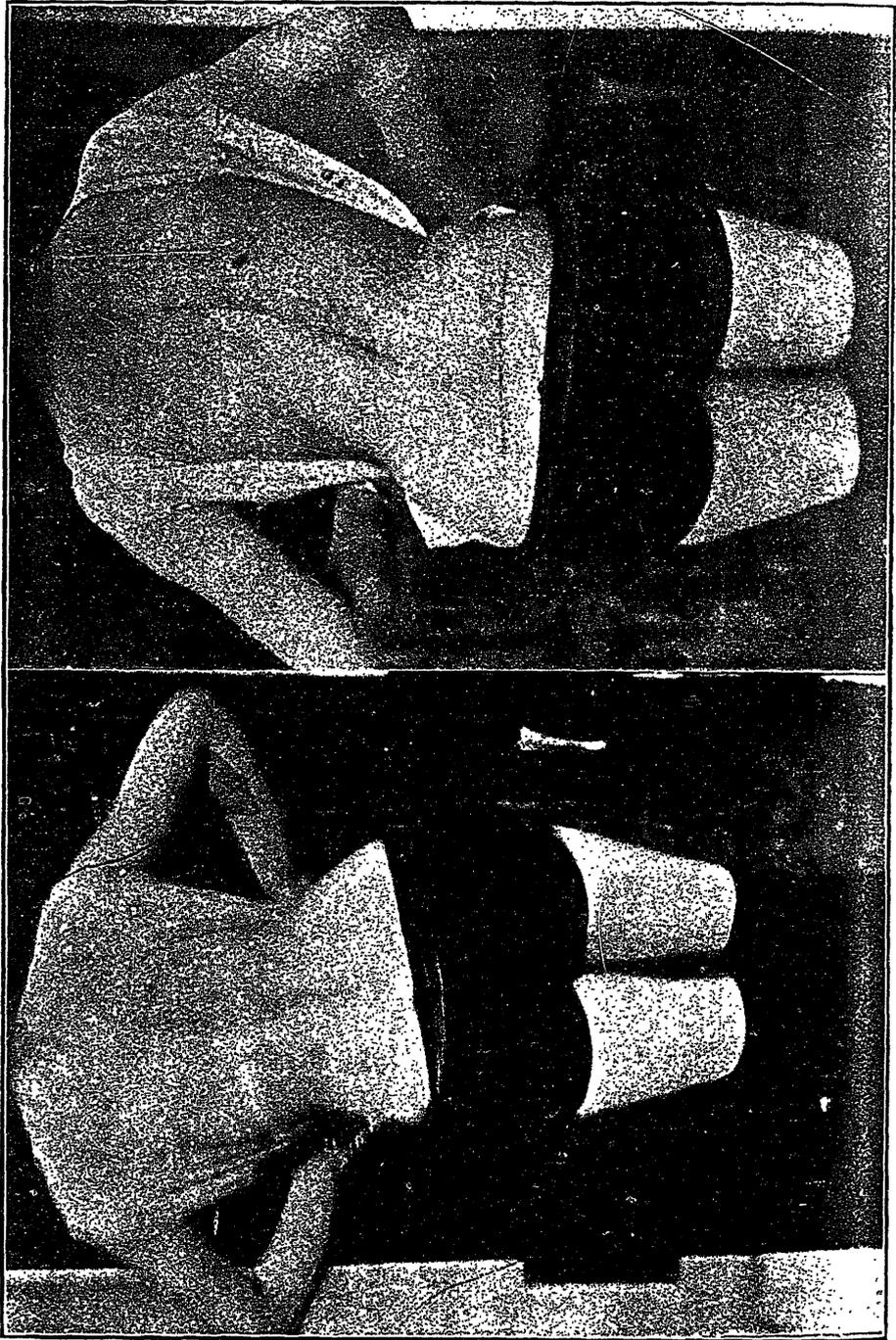
The following day the patient was anæsthetized. Under the influence of the ether the scoliosis gradually disappeared till the spine assumed a perfectly normal state. The tilting of the pelvis disappeared. The contour of the hips became symmetrical and the fulness in the right groin vanished. The spine was easily flexed in all directions. The rigidity of the right hip was gone and full extension and abduction was easily obtained.

The final examination practically excluded any tubercular condition of the spine or the hip, and enabled us to diagnose the condition as one of hysterical contraction of the spinal muscles.

The ætiological factors in this case were the definite history of two falls in which the back was injured. The first accident was eight years ago; the second two years later. In neither of them was the injury of a serious nature, yet they were so distinctly remembered that they must have made a decided mental impression and so helped in determining the localization of the hysterical manifestation.

The final cause that brought this condition to a focus was doubtless the worry and strain she went through both previous to and following her illegal operation.

The prognosis depends on the line of treatment that can be carried out. The treatment should consist of complete isolation. This is of the greatest importance. Friends and sympathetic strangers should be excluded. A strong-minded nurse should be in charge who will make light of her various pains and worries and constantly encourage her. There should be daily treatment care being taken not to fatigue the



I.—THE USUAL CONDITION.

II.—AN OCCASIONAL CONDITION.

Name *E.B.*

L.E.

R.E.

No

I

Date *JAN 18 07*

90°

Record

WHITE
BLUE
RED
GREEN

120°

60°

80°

80°

150°

90°

30°

30°

180°

30°

20°

20°

0°

210°

30°

40°

330°

240°

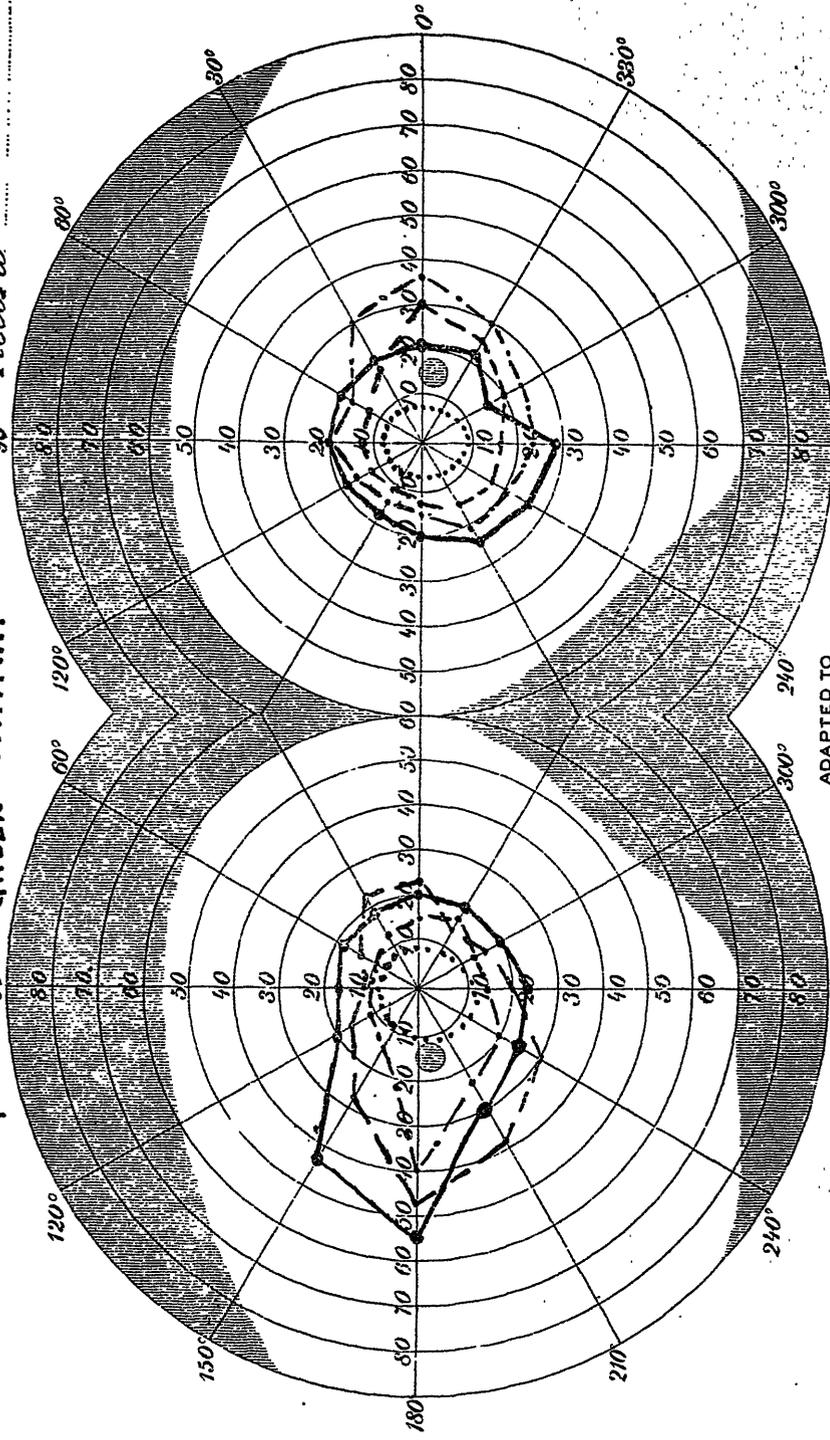
30°

60°

300°

270°

270°



ADAPTED TO
 SKEEL'S SELFRECORDING PERIMETER,
 Published by *E.B. Megraw & Co., New York.*

Name E.B.

L.E.

Date JAN. 30. 07

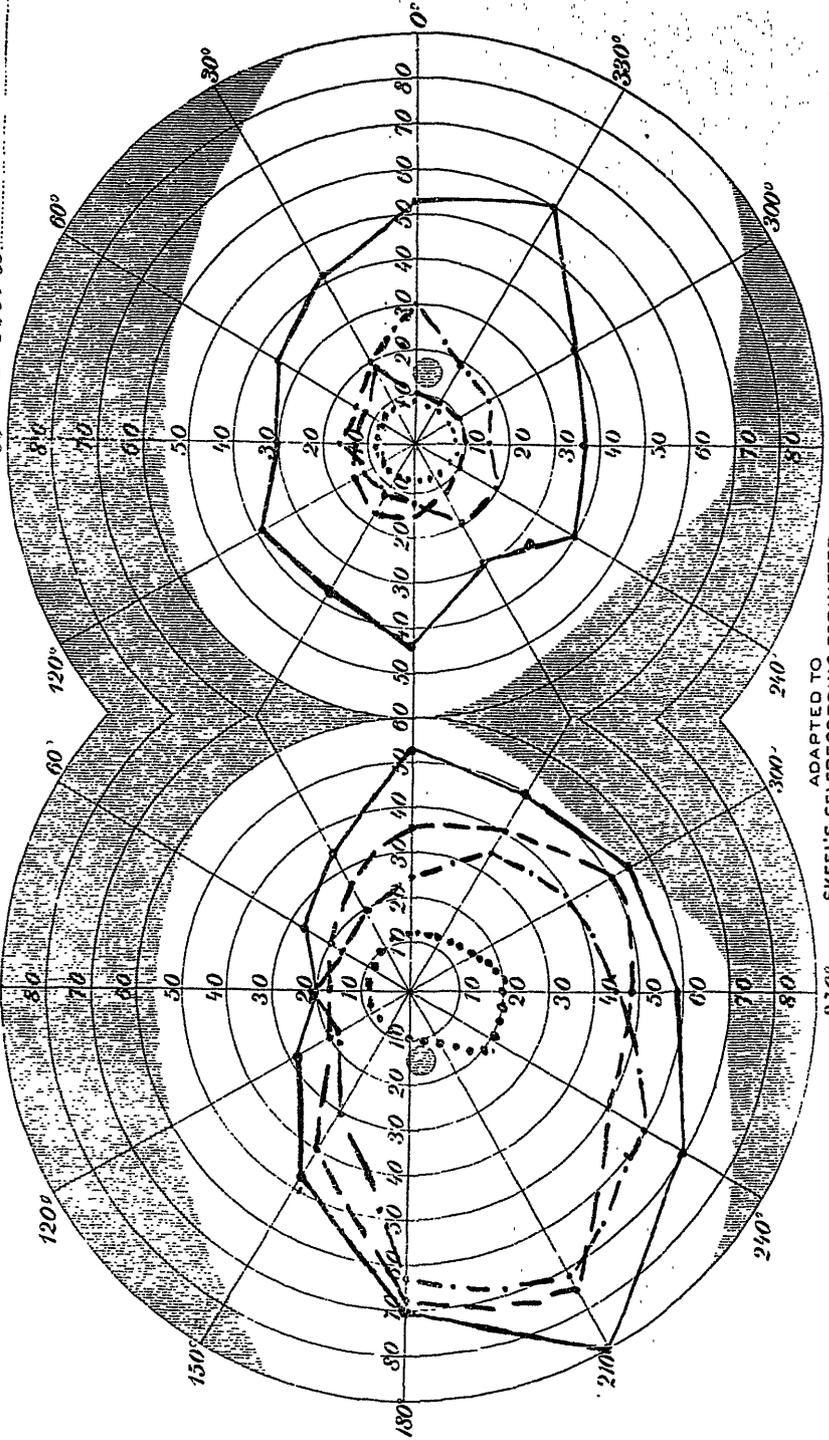
W. ———
B. - - - -
R. - - - -
G.

R.E.

No.

II

Record.



ADAPTED TO
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Published by E. D. McGraw & Co., New York.

patient, as the object is to strengthen the weakened muscles. This treatment may take the form of electrical stimulation, preferably the painful faradic stimulation by means of the wire brush. Mechanical vibration and massage is of great service for their general tonic effect. Passive exercises are also very important as they tend to overcome the spasms and strengthen the weakened muscles.

In this case isolation was impossible. Every day she received regular treatment and this varied according to her condition. Sometimes she received Faradic stimulation to the spinal muscles and vibration to the back, hips, and limbs. Another day she would be given vibro-massage and be put through some passive exercises. After one week of treatment very satisfactory results were obtained, as demonstrated by the fact that she was able to lie flat on her back on a hard table. The scoliosis almost completely disappeared; the hips became symmetrical, and the pain was greatly lessened. But, unfortunately, sometimes during the night, sometimes within the next hour, the old condition would return again. On February 20th, 1907, she left the hospital. Her bodily health was good, but the scoliosis and the hip condition were still evident.

PNEUMOCOCCUS CONJUNCTIVITIS.

BY

FRED. T. TOOKE, B.A., M.D.

Of the many and varied forms of an acute conjunctivitis referable to a specific micro-organism, none perhaps is more prevalent than that produced by the pneumococcus. This statement may be asserted with additional emphasis when one considers the outbreak, not only of isolated cases but of frequent epidemics during the early spring; the very unfavourable climatic conditions frequently induce colds of various kinds which play such an important role as a coincident factor in an outbreak of conjunctivitis of this kind.

The earliest recognition of the specific form of conjunctival inflammation attributable to the organism under discussion is credited to Gasparrini, who noted the pneumococci in a case of hypopion keratitis in 1893. Gasparrini was subsequently able to produce a pneumococcus conjunctivitis in rabbits by inoculation. In 1894, one year after Gasparrini's observations, Morax and Parinaud described a particular form of conjunctivitis in the new-born as a monolateral, benign, but occasionally stubborn affection, with marked lacrymation and contemporaneous rhinitis. Lacrymal stenosis was frequently present at the

same time. In Parinaud's opinion the exciting factor proceeded either from the nose or from the vagina.

Morax noticed a very delicate false membrane in his earliest cases in children under two years of age, but lacrymation did not as a rule occur. He further noticed that the disease would disappear in the course of a few days, and, as frequently only one eye was affected, he regarded the disease as non-contagious.

In 1896 Gasparrini and Axenfeld remarked independently that the disease could be recognised at different periods of life and that nearly always both eyes were affected; the latter reported two distinct epidemics. Gasparrini stated as his opinion that pneumococcus conjunctivitis was contagious, but Axenfeld considered that this statement could hardly hold for every individual. They both agreed that the clinical picture varied, the former stating that some manifestations were practically indistinguishable from that form of conjunctivitis produced by the Koch-Weeks bacillus; the latter recorded that in many instances pneumococcus conjunctivitis was peculiar and distinct. Additional emphasis was given to the observations of these authorities by the experimental work of Pichler, Gifford and Veasy.

The presence of the disease has been recognised and recorded principally in the more northern countries and outbreaks of epidemics occur generally in the colder seasons of the year, principally in the early spring. It has been further observed that different localities and different seasons of the year produce different results and Gasparrini and Gifford seem to have noted much more intense outbreaks than other writers. It is not necessary to draw attention to the fact that pneumococcus conjunctivitis only occurs occasionally in pneumonia; in fact, very few isolated cases of a coincidence of the two diseases have been recorded. A severe cold in the head producing a temporary stagnation at the nasal duct may be a prodromal factor and responsible for the subsequent regurgitation of micro-organisms from the lachrymal channels. It has also been pointed out that this form of disease may occur with measles.

The disease is essentially an acute inflammation, one eye being rapidly affected after the other, in the form of a very acute catarrh; yet the intensity and duration of the attack may vary considerably. Some cases are very pronounced, almost bordering upon a type of blenorrrhea, showing marked injection and swelling with considerable purulent discharge; while others demonstrate quite a mild type of disease which is limited to a course of few days duration. Consequently, one cannot say that it is recognisable by a definite and distinct clinical picture.

Two cases seen by me comparatively recently manifest not only a diversity in the clinical manifestations of the disease but in the severity of the type of inflammation present.

Case A.—An elderly man had been admitted to the hospital for the extraction of a cataract. Extrinsically the eye appeared healthy in every respect but to insure additional safety a culture plate, as well as a smear preparation, was made from the conjunctiva; no bacteria were found. As an additional safe-guard the lachrymal sac was syringed out with saline solution and the duct found to be patent. The usual operation for cataract extraction was performed and for the first twenty-four hours the patient's condition was in every way satisfactory. The following day, after complaining of a burning sensation and pain in the eye, pus was found on the dressing and the conjunctiva was seen to be distinctly reddened; evidence of early necrosis appeared along the line of the corneal incision. A smear preparation of the conjunctival secretion was made after Gram's procedure, which revealed quantities of pneumococci. Römer's anti-pneumococcic serum was administered immediately but the day following the progress of the disease had not been stayed and pus was in the anterior chamber. Local treatment and the employment of Römer's serum failed to check the disease, so that in four days the condition had proceeded to one of panophthalmitis with the usual results.

Case B.—Admitted to hospital suffering from an acute keratoiritis of the right eye. The patient's general health was good but shortly after her admission she complained of pain and lachrymation in the formerly healthy eye. The onset was markedly acute, to such a degree that, in twenty-four hours the lids were tremendously infiltrated and the most pronounced chemosis conjunctivæ was present so that the cornea could scarcely be seen. A rather profuse muco-purulent discharge was emitted from the palpebral fissure and examination of it showed pneumococci in large quantities. Iced applications of boracic acid and biborate of soda were applied to the lids and three or four days later all evidence of superficial inflammation had disappeared.

These two cases are cited merely to illustrate the remarkable result which may follow an apparently benign infection of the pneumococcus with a coincident corneal wound; while a very acute attack with profound superficial disturbance may completely disappear in the course of a few days if the corneal epithelium has remained intact.

An ordinary case of moderate intensity would appear somewhat as follows:—One first notices a rosy-red œdema of the lid margins, particularly of the upper, and Morax regards this as characteristic; there is

a rapid increase of the redness of the conjunctiva with moderate swelling and an occasional superficial false membrane formation so that at the crisis of the disease a profuse watery secretion containing a few purulent particles may be emitted between the lids and a marked redness of the bulbar conjunctiva be present, with an occasional phlyctenular formation at the limbus. One may occasionally notice tiny hæmorrhages in the bulbar conjunctiva particularly in that portion covered by the upper lid; these hæmorrhages assume a yellowish red colour and disappear during the process of resolution of the disease. This picture may pursue a critical course and the rapid disappearance of symptoms may follow in a short time after the crisis when the exciting cocci will disappear rapidly; the so-called Xerosis bacillus and the staphylococcus alone remaining. This condition is frequently noted in the new-born.

While a very similar picture of acute inflammation may be produced by the Koch-Weeks bacillus yet the critical course of the disease with sudden resolution and the arrest of symptoms independent of steady treatment of the conjunctiva characterises the pneumococcus as the responsible exciting agent. The very frequent association of a distinct coryza is not characteristic in a Koch-Weeks bacillus infection to the same extent. If we are to accept typical cases of the disease, these appear to run more in epidemics than as isolated cases.

Instances have been remarked where children have seemed to be selected in an outbreak of the disease although adults exposed to precisely the same degree of contamination have escaped. These outbreaks, so frequently observed in epidemic form among children, do not appear to have been noticed among adults unlike the Koch-Weeks inflammation, only isolated cases appearing as a general rule. An outbreak in adults, if we are to regard it as such, is generally of a very mild nature compared to that seen in children and can hardly be considered as an epidemic contrasted with the epidemics of Koch-Weeks conjunctivitis. It is consequently quite possible that in a large proportion of adults the conjunctiva possesses a certain power of resistance to the pneumococcus not found in children.

I have already remarked that a light superficial false membrane may be formed on the palpebral conjunctiva; some types occasionally are more severe and may simulate the croupous or diphtheritic forms. An iritis may be produced by resorption of the toxins of the pneumococcus without there being of necessity a corneal involvement. Gasparrini, whose cases appear to have been particularly severe, as well as Rymowitsch, has remarked upon this fact. This iritis may remain after all the indications of the conjunctivitis have subsided.

Although an infection of the cornea by the pneumococcus as an ulcer serpens will follow an insignificant abrasion of its protecting epithelium this complication fortunately seldom occurs where the corneal epithelium remains intact. In support of this statement Coppez has shown that in the intact cornea colonization of the bacteria in this tissue seldom occurs. The marked importance of the pneumococcus infection of the conjunctiva in the new-born has been commented upon by several authorities. The consensus of opinion points to the fact that this form of inflammation is of a benign nature, more so at least than that produced by the gonococcus. Cases of blenorrhoea neonatorum due to the pneumococcus are comparatively rarely seen. The existence of follicles in pneumococcus conjunctivitis is very occasionally noticed and when found in any quantity they can generally be attributed to causes other than the pneumococcus. Gasparrini and Ferri report cases where conditions of trachoma have been improved after a subsequent infection by the pneumococcus; but Gifford and Junius have not been able to substantiate this optimistic view.

Inoculation of the disease into animals very seldom produces positive results and a reaction in rabbits has only occurred after scarification of the conjunctiva or after abrasion of the corneal epithelium. The results in man, however, as I have already stated, are very variable; the occurrence of epidemics with the demonstration of the pathogenic cocci is the best proof that the disease is one that is transmitted. Veasey and Gifford have produced the disease by installing a pure culture of the pneumococcus into the conjunctival sac. Gifford had no success at first with aerobic growths but with anaerobic forms, conjunctivitis with flecks of secretion was present after an incubation of 24 hours. Halle observed the onset of the attack of conjunctivitis seven days after some discharge containing pneumococci had accidentally found its way into the eye; on the other hand Axenfeld reports a series of eight cases, one a child, with negative findings. From the foregoing is deduced the fact that in addition to contact infection there is a distinct individual susceptibility; one must also consider the possibility that some secretions do not possess the same power of producing as others. From this inference we can thus account for many isolated or sporadic cases where, in spite of conditions of profuse discharge, contagion does not occur. The fact that adults remain uninfected in many epidemics endorses this conclusion. That many foster the pneumococcus in a normal conjunctiva and tear sac where little or no reaction is present is admitted; and inflammation of the conjunctiva due to an increased

virulence of this micro-organism or the diminution of the patient's powers of resistance, can readily account for the subsequent outbreak. The ordinary chill on taking cold is frequently the cause to which is to be attributed such formation of inflammation.

To what degree immunity to the pneumococcus can be produced in the conjunctiva, has not been as yet satisfactorily estimated. Gifford after inoculating himself successfully found the conjunctiva apparently immune one week later.

During the early stages and height of the attack pneumococci are generally found in large quantities, particularly in small particles of pus from the discharge; the bacteria may appear free or they may be intracellular. They vary from those exhaled from the lungs in that the capsule of the conjunctival form is less distinct. When many round, short diplococci appear one is generally able to recognise numbers of a larger form as well; staining after Gram's procedure differentiates them from other diplococci. As soon as the inflammation subsides the typical pneumococci disappear while the so-called Xerosis bacilli and staphylococci may remain in varying numbers. A mixed infection is not frequently the case and at the crisis of an attack a pure culture of pneumococci is generally found.

Examining, microscopically, a section of the conjunctiva affected by this form of inflammation, one finds a diffuse infiltration of leucocytes through the section while pneumococci can be detected in the epithelium and in the more superficial layers of the mucosa.

Culture growths show a characteristic form, and the disposition towards chain formation is apparent, sometimes confusing them with the streptococcus growth. A microscopical examination of a smear preparation usually solves the problem; the diplococcus is generally seen a pair of enclosed cocci some of which are of larger size than others. The typical shape, or that most frequently seen is somewhat pointed at the poles, or lanceolate, and this characteristic is particularly well seen in smear preparations. One may also observe shorter and rounder diplococci with isolated short, plump chains, as well as short bacillus-like growths and involution forms. The capsule misleads one in considering them to be as large as the staphylococci or the streptococci. This capsule is best seen in a preparation of Loeffler's aniline blue.

Pneumococci grow only in high temperatures, over 22°C., best at 35°C.; they become weak at 40°C. They require media which are mildly alkaline, yet different growths seem to vary in this respect. The media should be moist and not too old; on agar and blood serum one notices glassy, bright, opalescent colonies which are round, re-

sembling tiny droplets. They are very small and not very much elevated or sharply defined. After a few days' growth these colonies disappear or are indistinct. Some colonies of pneumococci growing on a very moist surface have to be examined with the aid of a magnifying glass in order to be detected. Römer had advocated rabbit's blood serum, to which one-third glycerin has been added, as the best culture medium upon which to grow the pneumococcus.

These bacteria from the conjunctiva seem to be more difficult to grow than those obtained from the sputum of pneumonia; the best media are carefully prepared blood serum and agar. The cultures generally die in the incubator in a few days; anaerobic growths generally last a little longer and their power of virulence is also retained, as I have already stated in Gifford's conclusions. Bouillon growths produce a slight turbidity which quickly clears up. Growths from the conjunctiva on media die rather more quickly when placed on ice. Microscopical preparations made from media frequently show exaggerated forms of the bacteria as seen in smear preparations from the discharge; the arrangement of the cocci is often such as to simulate streptococci, the single organisms being shorter and rounder and arranged as short chains, these being included in the enveloping capsule. Such forms resemble the so-called "streptococcus mucosus" very closely.

The question of the identity of the micro-organisms last mentioned is, however, still an open one; some, as Wirtz, claiming it to be a distinct and separate form of bacterial growth, others, as Rupprecht, holding that its identity as such has not been proven and that in all probability it is merely a special form of the pneumococcus. In any case it is found extremely seldom as a distinct growth in the conjunctival secretion.

As the disease is a self-limited type of inflammation, the treatment must be essentially an expectant one; the secretion should be carefully irrigated from the conjunctiva and palpebral fissures by bland alkaline solutions, as boracic acid and biborate of soda. Iced compresses to the lids are generally grateful to the patient and well borne by the eye. Any evidence of early ulceration of the cornea should be treated with the actual cautery.

The concensus of opinion points to the fact that Römer's anti-pneumococcal serum has little or no power in allaying the progress of the disease when once the pathogenic microbes have been demonstrated, and evidence of inflammatory reaction has appeared.

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AN AORTIC ANEURYSM IN THE LUNG.

BY

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This case report describes an aneurysm of the descending aorta, evidently due to syphilitic aortitis, which excavated a large part of the upper lobe of the left lung, forming therein a cavity of which the walls were formed to a great extent by the lung tissue. The history of the case, and its signs and symptoms will show the excuse that existed for the mistaken diagnosis of tuberculosis of the lung.

The patient was an Englishwoman, of 34 years, who had been married 8 years, and had lived 5 months in Canada, employed as a housemaid. There is no history of previous illnesses, save an indefinite history of abdominal inflammation two years ago, which does not appear to bear upon the condition here considered. No history of syphilis is obtained from her husband, although he was in the British army for 16 years, several of which were spent in India. She had had several miscar-

riages, and had borne one child who died shortly after birth. Its relationship in time to the miscarriages was not determined.

When voyaging to Canada, she was extremely sea-sick, and on landing was very pale and weak, but rapidly gained weight and strength. One month before admission she had pain and numbness in the arms, symmetrical and constant, and at this time began to spit small quantities of blood. Two weeks before admission, she had a hæmorrhage from the mouth of several ounces, but continued to work, and one or two hours later, had a second larger hæmorrhage, which caused her to faint. Two days later I saw her for the first time, and immediately after my entering the room, she had a hæmorrhage of 5 oz. of bright, frothy blood. She was given morphia and for ten days remained in absolute quiet, with no re-appearance of blood save that two or three times the sputum, which was very small in amount, was bloody. During this period of quietness, her pulse suddenly increased in frequency, up to about 150, at times 164, with some mental distress on the part of the patient, but without cyanosis or dyspnœa; the rapidity of pulse was noted for about 8 hours, and disappeared as it had come. Throughout this part of her illness, the patient was mentally restless, even though she was given much morphia, and frequently was apprehensive of death. After a period of two weeks, from the time of the first severe hæmorrhage, she was removed to the Royal Victoria Hospital.

As far as examination could be made, it was evident that the left upper part of the chest expanded relatively deficiently; both sub-clavicular hollows were deep and poorly expansile. Percussion, a few days later, gave a slightly dull note over the upper lobe, front and back, and was very painful. Tactile fremitus appeared normal. Auscultation after the first hæmorrhage gave inspiratory and expiratory crackles which appeared afterwards only at intervals. Over the left upper lobe behind at the apex the breath sounds were high-pitched, with an amphoric quality, and expiration was prolonged and blowing; lower down over the upper lobe in front, the sounds were slightly diminished, at times "cog-wheel." The voice sounds were increased, without pectoriloquy. No cardiac sounds were heard over this area, nor was any pulsation noticed, although the chest was repeatedly examined in a good light.

From the time of the first hæmorrhage, complaint was made of pain in the back of the neck, and the left shoulder, sometimes referred to the front of the chest on the left side, at the level of the second and third ribs. This persisted in spite of free use of morphia. After coming to the hospital, this pain was constant, and was generally

referred to the left shoulder, running to the interscapular space, but not into the arm. Tenderness of the left side of the thorax was constant and frequently noted. During the seventeen days she remained in hospital the sputum was several times bloody but no large hæmorrhage occurred. She improved in spirits, and was several times propped up in bed. On several occasions the patient complained of difficulty in swallowing, but as this was transient, it was not considered important, though in the light of subsequent knowledge, it may have been actually caused by the aneurysm.

The diagnosis of tuberculosis of the left upper lobe was made, and the sputum repeatedly examined for tubercle bacilli without result. Aneurysm was thought of, by reason of the constant pain, but save for the fact that the front incisor teeth were short and the left lateral incisor slightly peg-shaped, there was no additional sign of syphilis noted, which might favour the supposition.

On the evening of the seventeenth day, the patient was seen at 9 p.m. by the house-physician; she was in good spirits, but complained that the pain was very severe. She slept shortly after this, and was asleep when seen by the house physician at 1 a.m. At 1.30 a.m. she called the nurse, who ran hastily to her, and found blood running from the mouth: the house physician reached her bedside in less than two minutes from the moment of alarm, and found her dead, the external hæmorrhage not exceeding four ounces. The face was blanched, and a diagnosis of internal hæmorrhage was made.

The autopsy, performed 33 hours after death, showed that most of the blood in the body was in the left pleura, whence large clots, moulded to the ribs, could be lifted.

Two aneurysms were found on the left posterior quadrant of the aorta, at the arch just above the descending aorta; the upper of these projects out to the left and backwards, is 1.7 cm. diameter, and of the same depth; the left subclavian arises at its edge, almost one may say, from its cavity; in it no rupture has occurred. Immediately below it, is the larger aneurysm, which has led directly into the upper lobe of the left lung. This aneurysmal orifice has wrinkled, rounded edges, and is triangular in shape, of a maximum width of 3.5 cm. The sac has projected backwards and outwards, has become adherent to the posterior inner surface of the lung, and has then advanced into the organ; from this point the aneurysmal sac becomes the cavity in the lung; it has advanced forward, and upward, until it has left only a layer of lung tissue varying from one to two cm. thick on its outer side; the anterior lappet of the lobe is spared. The aneurysmal cavity in the lung is

subspherical, measuring in its greatest diameter 8.5 cm., in its least, 7 cm., and its wall is white and fibrous, but no where appearing thicker than 2 mm. Layer after layer of fibrin is deposited on the inner surface of this wall, until the cavity has actually but a small size. The outermost layers of fibrin are firm, but nowhere actually organised to the wall. At the lowest part of the cavity there is a tear in the fibrin layers, 4 cm. long, with sharp edges, the underlying layers are lifted, and fresh clot is found extending to a point just underneath the pleura, and along this track beside the clot the fluid blood has evidently made its way; the pleura has ruptured between the lobes, and here the escape of blood into the pleural cavity has occurred, a straight outlet from aorta to pleural cavity allowing the aorta in a few heart beats, to pour all the systemic blood into the thoracic cavity. The adjoining lung tissue is filled with blood and microscopically resembles an infarct. The aorta throughout presents the appearance of a syphilitic aortitis, although no other sign of syphilis, save as noted above in the teeth, is to be found. From the aortic valves to the mid-dorsal region the aorta shows proliferative change, with raised pearly plaques of chronic endarteritis, with an occasional superficial fatty area, but no calcification. The rest of the aorta is comparatively free from gross change.

There seems no doubt that the lung tissue has provided the wall of this aneurysmal sac, to a great extent: the rapid thinning of the arterial wall as one proceeds from the aorta to the lung cavity indicates a failure of the arterial structures, and an assumption of their function by the proliferated fibrous tissue of the lung. The condition must, therefore, be strictly classed as a false aneurysm, although there is no doubt that it began as a true one; it had impinged upon the 2nd and 3rd dorsal vertebræ, making a decided hollowing on their lateral surfaces, and as it advanced against the lung, the pleura and the lung tissue, giving way before it, had provided step by step, a barrier against it; the adhesion of the entire area involved, that is, the apex, posterior and internal surfaces of the upper lobe, was so dense that the lung was removed with the greatest difficulty.

The specimen has been placed in the museum of the Medical Faculty of McGill University, where there is already a specimen of a similar aneurysm of the lung which has become healed.

There are one or two points which remain obscure in the history of this case: there is little doubt of the existence of syphilis, judging from the state of the aorta; the occurrence of miscarriages and a child dying shortly after its birth, and the teeth as noted are suggestive of it: as to whether it was congenital or acquired, the likelihood is in favour of the

latter; in a doubtful case, the husband's military service in India is worth remembering, in consideration of the prevalence of syphilis in the army. There had been some previous ill-health, as the husband told me that before leaving England, the physician in the provinces who had treated the patient for the abdominal inflammation had sent her to a London physician of note, whose name the husband had forgotten; the physician had assured the patient that she had no disease of the lungs, and could safely emigrate to Canada: it is probable that at this time there had been thoracic pain or at least uneasiness, though I was not able to discover what symptoms had suggested the London consultation.

The pain and numbness in the arms, being bilateral, could not be due to pressure, though the subsequent pain in the left side of the chest probably was. The occasional difficulty of swallowing, and the attack of temporary tachycardia most likely had their origin through nervous influences.

THE WATER TREATMENT IN POST-OPERATIVE VOMITING.

BY

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Winnipeg, Man.

Ever since anesthesia came into general use, especially for surgical work, its after effects on the patient have been a matter of much concern and annoyance to the operator, and of grievous distress to the patient. Various methods in the pre-operative treatment of the patient have been employed in the past to prevent this condition, with little if any success, so that now it is taken for granted that a patient, who takes an anesthetic, must suffer from nausea, vomiting and their allied distressing conditions for from twenty-four to seventy-two hours.

Any method of treatment which will obviate or prevent post operative vomiting will, I take it, be readily received by the profession and this is my reason for presenting to you this evening, a few facts regarding a simple method of treatment, which I have been using for the past year and a half and have found to be absolutely reliable.

About eighteen months ago, I read in the Medical Record, of New York, a discussion that took place at one of the Medical Society meetings of that city, in regard to this subject, at which, one of the surgeons present, (whose name I have forgotten), strongly advocated large libations of cold fresh water to be given to the patient for some hours before the operation. His theory as to the cause of vomiting from the

* Read before the Winnipeg Medico-Chirurgical Society, May 3rd, 1907.

anæsthetic is as follows: patient is prepared for the operation in the usual way and receives nothing in the shape of food or fluids for twelve hours previous to the operation, consequently the stomach is empty. During the operation the saliva becomes surcharged with the anæsthetic and trickles down the œsophagus into the stomach, where in its concentrated form, it attacks the mucous membrane and produces gastritis. When the stomach is full of water the anæsthetized mucus swallowed is quickly taken up, diluted and thus prevented from acting as an irritant to the mucus membrane. He reported three cases treated in this way with absolute success. So rational did this theory appear to be to me, that I adopted it at once and now have to report action on thirty-five patients. Length of time under the anæsthetic ranged from forty-five minutes to two hours. There was one hysterectomy, six appendectomies, several cases of tuberculous glands of the neck, one large left inguinal abscess, a number of curettages, and various other minor operations. Preparation of the patient for morning operation; bath: saline purge in the afternoon of the day previous to the operation: light supper; after midnight give four ounces of cold fresh water every 4 hours. Two hours before the operation give eight to twelve ounces of cold fresh water and half an hour before placing the patient on the table, another eight ounces. In this way you will fill up with fluid the tissues that have been depleted by the purging, as well as put the stomach to its full capacity.

I have found when this plan has been carried out, that the patient is more easily put under the influence of the anæsthetic; that there was not the slightest attempt at retching or vomiting by the patient when going under the anæsthetic, or during the operation in the cases reported, with the exception of one. In this case the stomach was overcharged with fluid and immediately before beginning the operation, she emitted a mouthful of water, after which there was no more disturbance. Out of the thirty-five cases only four were troubled with slight post-operative vomiting.

In the hysterectomy case, which occupied two hours, there was slight vomiting of mucus at intervals of three or four hours, but there was no straining or retching associated, and the patient was able to retain fluids in the meantime.

In another case, appendectomy, there occurred a severe vomiting spell once only, six hours after the operation. The vomitus was dark grumous-looking, at which the nurse became alarmed and asked the patient what she had been eating. The patient replied that she

was starving and ate half a pound of chocolates, which she had smuggled into her room, with the inevitable result.

Number three was a case of tuberculous glands of the neck. In this case the nurse misunderstood the directions and cut off the water supply at 2.30 in the morning. The operation was posted for 11 a.m. but owing to a previous operator taking up the time, it was postponed until 2.30 p.m. Just before the anesthetic was given I inquired of the nurse if the patient had received the usual quantity of water. She replied "none since 2.30 a.m." This patient was without food of any kind from 6 o'clock the evening previous, and twelve hours without fluids. I gave her a large tumbler full of fresh cold water, after which the anesthetic was given. At three o'clock in the morning she had a short vomiting spell and went to sleep immediately afterward.

This method has several important advantages. I found the blood pressure scarcely lowered in chloroform anesthesia; there was no tendency towards collapse in any of the cases and at the end of the operation the pulse was usually full, strong and regular. There was an entire absence of the severe straining and retching, so common in these cases; and this is of great advantage especially in abdominal operations, where there is a likelihood of the sutures stretching or breaking, and the edges of the wound separating, which, I believe, to be one of the most frequent causes of hernia in this class of operations. The return of the patient to consciousness an hour after being placed in bed and the desire for and retention of, liquid food within six hours after the operation and the elimination of the odor of the anesthetic from the body of the patient within twenty-four hours, as a rule, are factors which plead eloquently for the water treatment in operative cases.

From the forgoing remarks the following conclusions may be deduced; 1. That the free administration of water previous to the anesthetic is of great service to the patient. 2. That the intense thirst and retching usually experienced by patients happily are not present under this method. 3. That the odor of the anesthetic is much more quickly eliminated from the system. 4. That the patient is able to take food within six to eight hours after the operation and enjoy it.

Dr. Donald Armour, F.R.C.S. (Eng.), has been awarded the Jacksonian Prize for 1906 for a paper on "The Diagnosis and Treatment of those Diseases and Morbid Growths of the Vertebral Column, Spinal Cord and Canal which are amenable to Surgical Operation." Dr. Armour was a graduate of Toronto University in 1894.

PUERPERAL INFECTION.—CERTAIN CLINICAL CONSIDERATIONS.

BY

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Montreal.

During the past year patients confined in the Maternity have been comparatively free from infection, while, on the other hand, the gynaecological wards of the General and Royal Victoria hospitals have always contained infected puerperal patients, in most of whom the infection had resulted in abscess formation or true septicæmia. These women are generally seen late in the course of the disease, and, oddly enough, the bacteria present differ markedly from those usually found in the early cases. That is to say, staphylococci and colon bacilli are often found in the abscesses, though neither of these varieties of organism are of great importance in the consideration of early infection. Indeed, it is this bacteriological basis of the question to which I wish to draw particular attention to-night, under the three headings, prophylaxis, diagnosis, and treatment.

I have purposely avoided extensive excursions into the literature of the subject, and bring before the Society that which is entirely our own and that which we have tried and found of value.

Prophylaxis should begin, not at the time of labour, but early in the pregnancy. There is no doubt that a woman's susceptibility to infection varies greatly with her general health, and that a patient who has kept her skin active by daily baths during the last few weeks of her pregnancy, and who has not suffered from mild toxæmia from constipation, is much less liable to become infected than another who has not taken precautions. Much can be done for patients with profuse vaginal discharge. Irritating leucorrhœas improve greatly under douching with boric acid or normal salt solution, and profuse gonorrhœal discharge offers little more difficulty in treatment, than at any other time. During the past year we have had four or five gonorrhœal infections and have had considerable success with them. Rest in bed, douches with mild antiseptic solutions until there was marked decrease in the amount of discharge, and then in two, the use under primary anæsthesia of saturated solutions of permanganate and oxalic followed by glycerine tampons. In the others a strong solution of silver nitrate was used in place of the permanganate and oxalic.

* Read before the Medico-Chirurgical Society, Montreal, May 17th, 1907.

The care of breasts and nipples is important. Depressed nipples should be drawn out with the fingers, a procedure which will tend at the same time to toughen the skin. Cupping, applying a hot bottle over the nipple and surrounding it with a cloth rung out of cold water, has also given good results. Where the nipples are not flat but show susceptibility to fissures, some emollient is used until the skin of the nipple is soft and not tender, and afterwards a wash of equal parts of alcohol and witch hazel is used twice daily. This solution does not appear to harden the skin but renders it tougher and less liable to crack.

At the time of labour the routine prescribed is to give the patient a full bath and enema, to shave the vulva, and to scrub with green soap and sterile water followed by alcohol, then to apply a towel soaked in 1-2000 bichloride solution. The question of danger of infection from the bath water has, I believe, been definitely settled, while the use of the enema is of the greatest possible value in the prevention of contamination from the rectum during delivery. The great possibility of fecal contamination, particularly during operative manoeuvres, has suggested the use of a protective dam which I show you. It is a small piece of surgical rubber tissue, which, when moistened with chloroform, becomes adhesive and can be applied over the perineum and buttocks in such a way as to absolutely preclude the possibility of contamination from feces. This simple appliance has proved an immense success in operations such as version, where the entire hand has to be introduced into the vagina, and where there is so much danger of the contamination of the fingers. With reference to the shaving, it was said that there would be considerable opposition from the patients on this score, but I have never yet met with any objections when the reason for the procedure was explained, and, on the other hand, most firmly believe that the proceeding itself has been a most effectual aid in keeping down the number of cases of infection. In those infected cases which have been sent into the hospital showing pubic hair matted with blood and lochia it is difficult to absolve the attending accoucheur from some responsibility for the infection. For this part of the preparation of the patient we have recently made use of a small safety razor, which, in the hands of the most inexperienced nurse, can do no harm to the patient and is much more easily used than ordinary scissors. The use of vaginal douches before delivery has been entirely discontinued. There is no time here to enter into the discussion of the bacteriology of the vaginal secretion. The most recent work, having in view all the discordant statements on the point in question, is that of Gonnet

of Lyons (*l'Obstétrique*, January, 1907), who gives results of examinations of secretion from a hundred patients, which further substantiates the contention that streptococci are never normally present in the vagina. It is not contended that the vagina is free from bacteria, but that the streptococcus pyogenes, by far the most frequent cause of infection, is *not* present, while those organisms which *are* present can only have importance in connection with the retention of blood clot, membranes or portions of placenta which give them a field for growth.

Experience in abdominal palpation and a knowledge of the descent of the head or breech into the pelvis, as gained by palpation above the pubes or by invagination of the perineum, has to a great extent lessened the necessity for repeated vaginal examinations; indeed, apart from a knowledge of the degree of dilatation of the cervix there is little to be gained from vaginal examination that can not be as readily and more safely obtained by other means. It is a well known axiom that the danger of infection varies practically with the number of vaginal examinations during labour, and indeed, it is doubtful whether two such examinations should not be the limit in any given case. The introduction of rubber gloves for use in vaginal examinations has suggested the possibility of their use in determining the dilatation of the cervix by palpating through the rectum. This procedure which was, I believe, originally suggested by Kronig, was one fraught with extreme danger when absolute asepsis could not be obtained later in the delivery. The use of a thin glove, which should be kept solely for this purpose, and boiled before and after using, will, with a certain amount of experience, enable one in many cases to omit vaginal examinations.

After such stress on the careful conduct of vaginal examination, it may be suggested that I have overlooked the possibility of infection in cases not examined vaginally. Such infections undoubtedly occur, and may possibly be due to streptococci. In this case, the chart of which I show a pure culture of streptococci was obtained from a sample of lochia taken at the time of the rise in temperature. The patient had not been examined in any way and I was at a loss to account for her condition until, on careful inquiry, I found that the labour, which had taken place two or three weeks prematurely, had come on within twenty-four hours of sexual intercourse. This possibility, to which reference has been made by Dr. Williams, must be always borne in mind, and, I believe, will explain many so-called cases of auto-infection.

Apart from the question of vaginal examination, there are certain features in the management of labour itself which are worthy of attention. First of order, I would place careful management of the third

stage of labour, not only with reference to the question of hæmorrhage, but also that care may be taken to secure the membranes entire. There has been considerable discussion in Germany recently as to the proper procedure where portions of membranes are retained, and, while I think most of us here will agree with the majority of those who have written on the subject, that the retention of membranes is of itself a matter of slight moment, yet it is hard to believe that the presence of portions of the chorion hanging like a wick from the cervix, will not favour the ascent of organisms from the vagina with consequent toxæmic infection. Much of the success claimed for Zweifel's procedure, namely, sponging out clot, etc., from the vagina is probably due to the prevention of such ascending infection. It is interesting, however, to note that even in these cases of so-called sapræmia the organisms found are not only those from the vagina but also others undoubtedly from without.

Next to this care for the membranes, I would place the importance of catheterization of the patients, either immediately before or immediately after the completion of the third stage. However carefully conducted the labour, there is almost invariably a certain amount of laceration about the vestibule. Abrasions slight in themselves, frequently give rise to retention; and yet if left alone heal within a very short time. Catheterization cannot be carried out later without opening up of these fissures and the irritation is apt to cause retention. Moreover, this emptying of the bladder which allows a ball valve like action of the upper segment is of the greatest value in the control of hæmorrhage. Profuse hæmorrhage may often be checked by this simple procedure which allows the uterus to take its normal position.

Good involution thus initiated immediately after the birth of the placenta is of the utmost importance during the puerperium, and too much stress cannot be laid on the position and consistence of the fundus. A lax uterus which allows accumulation of blood in its cavity or does not properly rid itself of the lochia is much more susceptible to infection than is one in which proper involution has been secured. The application of ice over the fundus, the repeated administration of small doses of ergot, the regular evacuation of bladder and rectum and late in the puerperium the use of hot vaginal douches give most satisfactory results. The condition of the cervix has also much to do with involution and susceptibility to infection; but while, for my own part, I am a strong believer in the immediate suturing of such lacerations of the cervix as extend half way or more into the vaginal fornices, this is a question of such moment that it cannot be dismissed with a word.

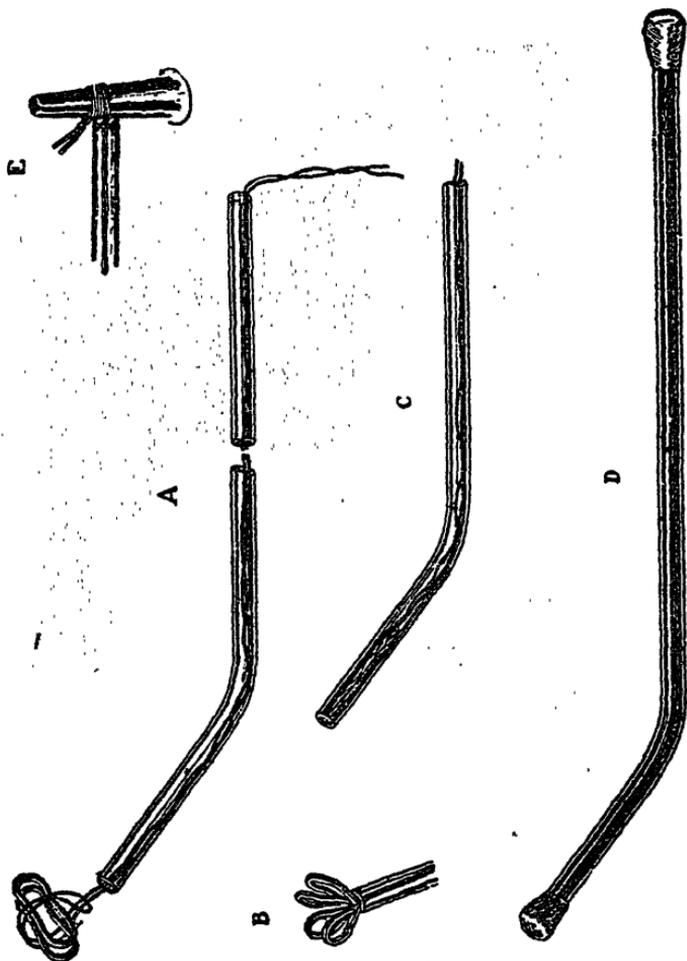
In considering diagnosis, the first difficulty is to decide what really constitutes puerperal infection, and for the purpose of classification

the majority of German clinicians are agreed that any patient whose chart shows a rise in temperature to 38° C. (rectal measurement) should be classed as morbid. In the annual report of the Maternity many variations of this classification have been considered, and on the whole it is probable that any rise in temperature to 100.5 degrees F. should be viewed with apprehension, and a rise to 102 degrees call for most careful examination of the patient. There can be no doubt that the temperature may be elevated during the early days of the puerperium from causes other than infection of the endometrium, but in the absence of evidence to the contrary, that is the first probability.

The infecting agents may be roughly divided into four classes: (1) Streptococci, alone or in combination. (2) Gonococci. (3) Aerobic organisms which do not usually develop save in the presence of necrotic material, so-called "saprophytes," and (4) Anaerobic organisms. Combination of the first two and last two groups will give us the division made by McDonald into so-called (1) true infections or septicæmia, and (2) toxæmia. It will be noticed that no special mention has been made of the staphylococcus or the bacillus coli. Staphylococcus infection immediately post partum is extremely rare. In 150 cases of infection reported upon by Dr. Williams, the staphylococcus was found but four times; and in a long series of cases fully equalling that number, I remember isolating it in but a single case. The fact that the staphylococcus is so frequently found later in cases that have undergone treatment, suggests that it may have been introduced during the so-called remedial manipulations. The bacillus coli is rarely present except in cases of fecal contamination, where streptococci are also undoubtedly introduced, and, elsewhere I have reported one case with an old complete laceration of the perineum in which a practically pure culture of the bacillus coli was obtained from the uterine cavity, and yet the patient showed no signs of systemic disturbance.

For the classification of infections according to etiology there is no definite clinical basis. It has been said that the signs of toxic infection appear late and that in gonorrhœal infections there is usually history of previous vaginitis. In none of our cases of gonorrhœal infection was there a history of previous vaginitis, but on the other hand, those cases of gonorrhœa were successfully treated during pregnancy, and none of the four showed later evidence of infection. Anaerobic infection is most frequently met with in cases of incomplete abortion where the retention of large quantities of dead tissue is complicated by inefficient drainage from the cervix.

Apart from the clinical value of a differential diagnosis and the placing of individual cases into one or other class, a positive bacteriological examination of the lochia may be of distinct medico-legal value. It is not at all uncommon for women about the time of confinement to consult scientific books from which they obtain an idea of the physician's responsibility for infection, and suits for malpractice are not



[FROM THE JOHNS HOPKINS HOSPITAL BULLETIN, Vol. XV, Nos. 160-161, July-August, 1904.]

unknown when infection occurred. The fact that without bacteriology it is impossible, for example, to say whether the streptococcus or the gonococcus has been the cause of the trouble, renders the making of cultures imperative; while in hospital practice where patients are admitted with fever, as in cases of incomplete or criminal abortion, a culture taken before any operative measures are begun may prove of distinct value in placing responsibility should complications occur later.

For the purpose of taking such cultures many means have been suggested, and the one I wish to bring to your attention is not altogether new. It was devised about three years ago when working in Dr. Williams' clinic, and since that time I have used it on some 300 occasions with increasing satisfaction as to its value. It is a glass tube curved slightly at one end to correspond to the shape of a uterine sound. Two small rubber bands are tied in the middle with a stout thread or narrow tape and are then drawn up into the tube so that they may act as a plunger and make each tube an aspirating syringe. No cervical secretion can enter the tube during its passage into the uterus, and if traction be made by reeling the draw-string upon a dressing forceps, using as fulcrum the distal end of the tube, there is no possibility of projecting the tube against or through the wall of the uterus, as might happen if the plunger was blocked and then suddenly freed. The tube is sterilized by boiling and can be used without aid from an assistant, while very little disturbance of the patient is necessary. The manner of procedure is as follows:—The patient is prepared as for vaginal examination and then carefully raising her a shallow bed pan is placed under the hips, and, after covering the thighs and abdomen with sterile dressings, (1) catheterize, (2) expose the cervix by means of a bivalve speculum, (3) secure the anterior lip with a tenaculum, and (4) after sponging away any secretion present in the cervix, pass the tube directly into the uterine cavity. After the lochia have been secured a uterine douche can be given, the pan receiving the returning fluid. The operation lasts but a very few minutes and causes practically no disturbance of the patient.

The macroscopic appearance of lochia in the tube is of value in that all, particularly the gonorrhœal, have distinct characteristics. These last are, as first pointed out by Taussig, of greenish yellow mucous character, with occasional streaks of blood, very stringy and gelatinous. In streptococcic infections, the breaking down of the red cells gives a diffuse cherry red colour to the secretion; while in the anærobic cases the colour is frequently a dirty dark brown. The odour is of comparatively slight importance; in the most severe cases infected with streptococci there is no odour.

Even where media is not available for inoculation, much may be gained from an examination of cover-slip preparations. Particularly is this true in the case of gonorrhœal infection. In addition to the form of organism present, the number of leucocytes present and the question of phagocytosis is of as great importance, for those cases in which streptococci are present with evidence of extensive phagocytosis

on the part of the leucocytes have a much more favourable prognosis than when this is not seen. More complete and satisfactory results in diagnosis will be obtained by sealing the tube at either end and sending to a laboratory.

This bacteriological diagnosis has a direct bearing on the treatment. It is well known that streptococcus infection takes place in the absence of retention of debris within the uterus; putrid infections are practically impossible without the presence of such debris, while in gonorrhoeal infection there will be a considerable amount of characteristic viscid secretion. Thus, the use of the curette in streptococcus infections will probably be positively harmful, while in gonorrhoeal infections it can do little good. Safer then will be the exploration of the cavity with the finger and the removal of debris if present. During the past year, I have seen six cases of retention of the placenta, in four of which, the *villi dipped deeply into the muscle wall of the uterus, and in all four there was a history of curettage for infection at the previous labour.*

It is well known that gonorrhoeal infection treated expectantly almost invariably subsides. Hot vaginal irrigations with consequent increase in the local blood supply need be only therapy. If an intra uterine douche is used it should be either sterile water or normal salt solution. In a recent case of gonorrhoeal infection I have seen a cast of the uterine cavity formed from albuminous secretion coagulated by a weak bichloride douche, the douche in this case frustrating its own end. In putrid infections, removal of debris with the finger will be followed by a marked improvement in the patient's condition and the use of ordinary normal salt solution as a douche at the time of taking the culture may of itself remove disorganized clot or other material, and a satisfactory result will follow, without even the use of the exploring finger. Anaerobic infections are best combatted by the allowance of free drainage after opening up the cervix and thoroughly washing out the cavity.

But one class of cases gives rise to anxiety—streptococcus infection. Here, too, the fact that so many improve *in spite* of active treatment is the strongest argument for careful expectancy. Knowledge of the pathology of the condition has, as said before, shown the contra indication to the use of the curette and, indeed, it is doubtful if the use of intra uterine douches is of value. Strong antiseptic douches do not penetrate into the muscle and will probably do positive harm. The proper treatment seems to be to secure good involution of the uterus, to keep up the patient's general strength, and thoroughly

wash out the bowel and her system generally by the use of large quantities of water and normal salt solution. By the use of rectal salines, by sub-mammary salines, and by forcing the patient to drink, 10 to 12 litres of fluid can be given in twenty-four hours, and where this is done there can be no doubt of its therapeutic value. The rapid recovery with this treatment leads one to view with suspicion the brilliant results claimed from the use of silver salts and other similar remedies, while the varying characteristics of the organism found has hertofore rendered the use of anti-streptococcus serum of no practical value. Polyvalent sera have, indeed, been introduced and used with considerable success, but so far, there has been in America at least, no scientific basis for their production or use. It is our great hope that sometime in the near future it may be possible to so systematize our practise that we may be able to grow the specific organism from the uterus in each case, and from such cultures obtain vaccine which may be used in the manner suggested by Sir A. E. Wright.

All that has been said with reference to the treatment of infection in labour, at term will apply with still greater force to the treatment of incomplete abortion. The comparatively insecure attachment of the ovum to the decidua in the earlier stages of gestation renders its removal with the finger extremely easy, while the use of a sharp curette on the soft and thick decidua cannot but do harm both in giving a larger surface for absorption where infection has been present, but also in the removal of an excessive amount of uterine tissue. With reference to packing the cavity of the uterus in these cases, I believe experience has shown that great value should be attached to the allowance of free drainage without packing. The pack can do no good apart from preventing hæmorrhage, and, if the cavity has been completely cleansed, no bleeding will occur; on the other hand, even where iodoform packing has been used, I have taken cultures from above and behind the pack and found living and growing anaerobic organisms.

On the whole, the simplest and best treatment for this class of cases would seem to be dilatation of the cervical canal till the introduction of a finger is possible, then the removal of debris with the finger, and, if necessary, the ovum forceps and subsequently a douche of salt solution. Frequently the use of a salt solution douche may give rise to rather alarming symptoms, a rapid rise in temperature, shaking chill, and evidence of collapse. This, I believe, is due to the sudden absorption of the fluid of the douche containing large amounts of soluble toxins from the necrotic material, this absorption being rendered more possible

by the removal of the debris. Lately, and on this account, we have ceased to douche cases of incomplete abortion, particularly where there is no evidence of severe infection and the results seem to be good.

Unusual stress has been laid on two features of treatment to which I would like again to refer; the use of the curette, and the question of douching. The curette has been seen to open up new avenues for infection and to be only relatively useful in removing debris. In a recent article by Gordon (*Jour. of Obstet. and Gyn. Br. Emp.*, Jan., 1907) the dangers of a blunt curette are set forth, and while the writer suggests the radical use of the sharp curette it is only as a last resort and in combination with strong measures to disinfect the cavity and prevent hæmorrhage. He lays great stress on the necessity for curetting down to the muscle wall of the uterus, and either loses sight of the fact which I have brought to your attention that such laying bare of the muscle wall of the uterus is invariably followed in the later pregnancy by that condition known as placenta accreta or placenta membranacea, which in itself gives rise to the necessity for manual removal and grave danger of further infection, or believes that in extreme conditions this is of no moment. Much has been written about the danger of the curette breaking down the normal attempt at repair, the leucocytic barrier within and beneath the infected decidua. In cases of streptococcic infection, the curette cannot even then reach the infecting agent which travels directly through the muscle wall. With regard to douching, note that the prophylactic douche before vaginal examination has been absolutely discontinued, and apart from those douches given late in the puerperium where there is evidence of subinvolution or retention of debris in the uterus, intra uterine douches have been also discontinued. After operative cases it is probable that rather free bleeding is of value as a mechanical douche and it is doubtful whether after an operation conducted without strict asepsis any douche would be given with better technique and if the danger from the douche would not outweigh its possible benefit. Weak solutions of the usual antiseptics in tap water are a source of the greatest danger. In the paper referred to by Gordon the author states that he has never seen a bichloride intra uterine douche given without subsequent evidence of poisoning, while Bumm has shown that the most energetic local treatment is useless, as within fifteen minutes to one-half hour the organisms have so penetrated the tissues that they are far beyond the reach of any chemical disinfectant. Resistant spores in tap water will not be rendered innocuous by the association for a short time with such minute quantities of the antiseptic as can be used without danger of

poisoning. This danger of poisoning applies chiefly, of course, to solutions of bichloride of mercury and of carbolic acid which, however, are the two in most general use.

To conclude, I would lay stress on the following points:

(1) The prophylaxis of puerperal infection should begin during pregnancy, not at the time of labour.

(2) Vaginal examinations should be undertaken only with the strictest aseptic precautions and may be replaced by rectal examinations if gloves are worn.

(3) There are no definite clinical signs by which we may differentiate varieties of infection early in the puerperium.

(4) A bacteriological examination of the lochia is of great value in diagnosis, as a guide to treatment and also medico-legally.

(5) The use of the curette is *contradicated* in severe streptococcic infections, and in all cases is liable to do harm, both by interference with attempt at repair on the part of the tissue, and when carelessly used, by removing too much tissue and so permanently altering the character of the endometrium.

(6) Intra-uterine douches are not devoid of danger, and if used, should be of simple character and contain no strong antiseptic.

(7) In treatment, (a) clear out debris from within the uterine cavity; (b) allow free drainage; (c) keep up the patient's general health; (d) bear in mind that a mild infection may be aggravated by improper (usually too active) treatment in its early stages.

POLYPOIDAL OVERGROWTH OF THE INFERIOR TURBINATES.*

BY

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The specimens presented were removed from a man aged 63 years, in March, 1907. The history contained nothing beyond the complaint of nasal obstruction for about ten years, slightly worse within the past two months. There had been no marked nasal discharge or pain at any time to suggest a sinusitis or other severe inflammatory condition. Two years ago he was examined and told that he had a nasal polypus but refused treatment.

On examination, both nostrils were found to be filled with a pinkish mass of cauliflower appearance. By posterior rhinoscopy the masses could be seen protruding slightly into the naso-pharynx, where they

*Read before the Montreal Medico-Chirurgical Society, April 19th, 1907.

were in contact with the middle line. On the 11th of March the tissue was removed from the left nostril by means of a cold wire snare. The mass was engaged by a large loop and avulsed, in the manner usually employed in removing the ordinary œdematous mucous polypi: very little bleeding followed. The condition was found to arise from the inferior turbinate which had undergone a polypoidal degeneration

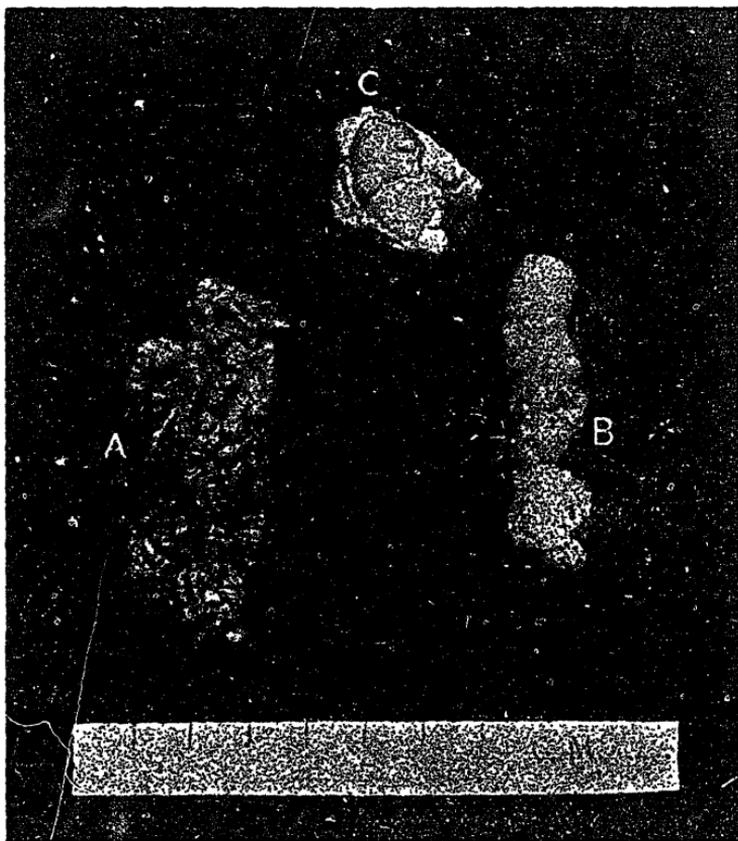


Plate I.—*A* and *B* show the polypoidal masses referred to in Case I, still showing the general form of the inferior turbinates. *C* shows the irregular lobulated shape of the tonsil reported in Case II.

throughout its entire length. The middle turbinate and ethmoidal region which are the usual site of polypoidal changes appeared healthy. A few remaining tags of unhealthy mucosa were snared individually. Owing to the extent of the operation the lower meatus was lightly packed with iodoform gauze for forty-eight hours.

One week later the right side was treated in the same way; the process here was the same, but had not advanced to the same degree. (See Plate No. I.)

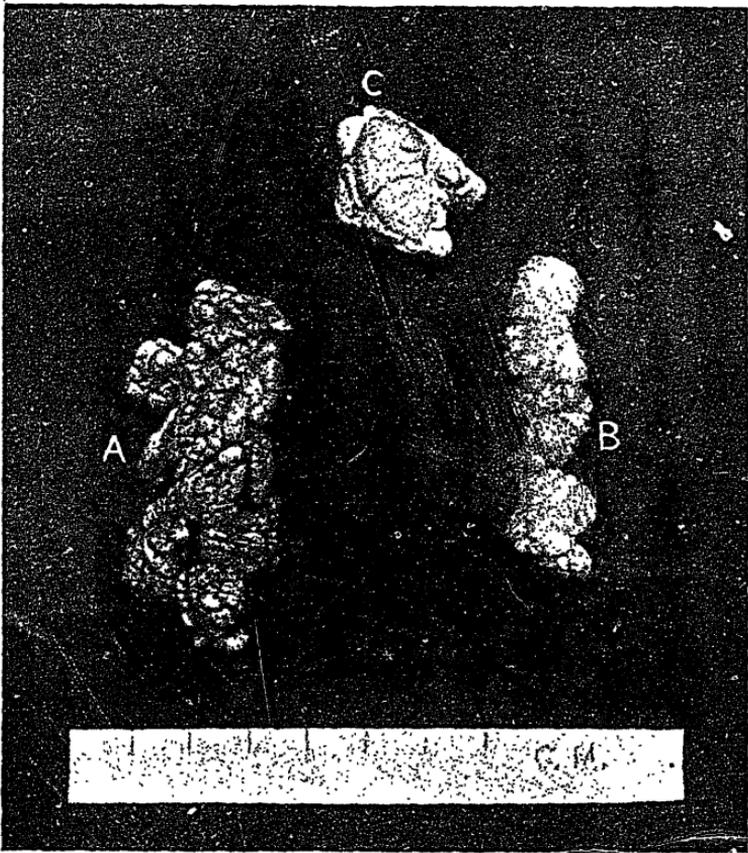


Plate I.—*A* and *B* show the polypoidal masses referred to in Case I, still showing the general form of the inferior turbinates. *C* shows the irregular lobulated shape of the tonsil reported in Case II.



Plate II.—Lateral view of largest mass showing the papillary overgrowths.

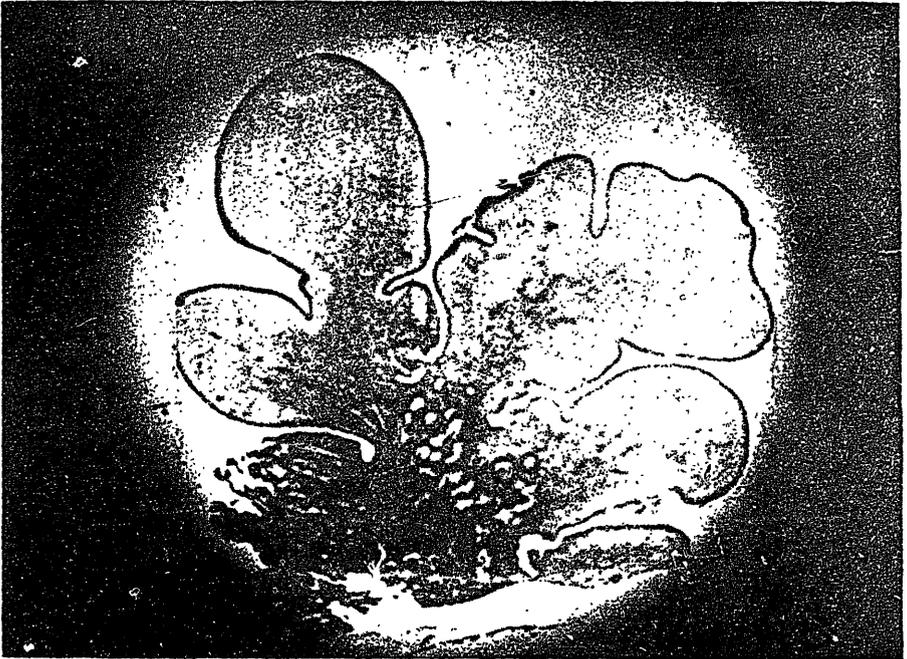


Plate III.—Micro photograph of section (very low power) of small portion of the polypoidal mass. The dark outline represents the thin covering mucosa of columnar epithelium which has taken no part in the overgrowth.

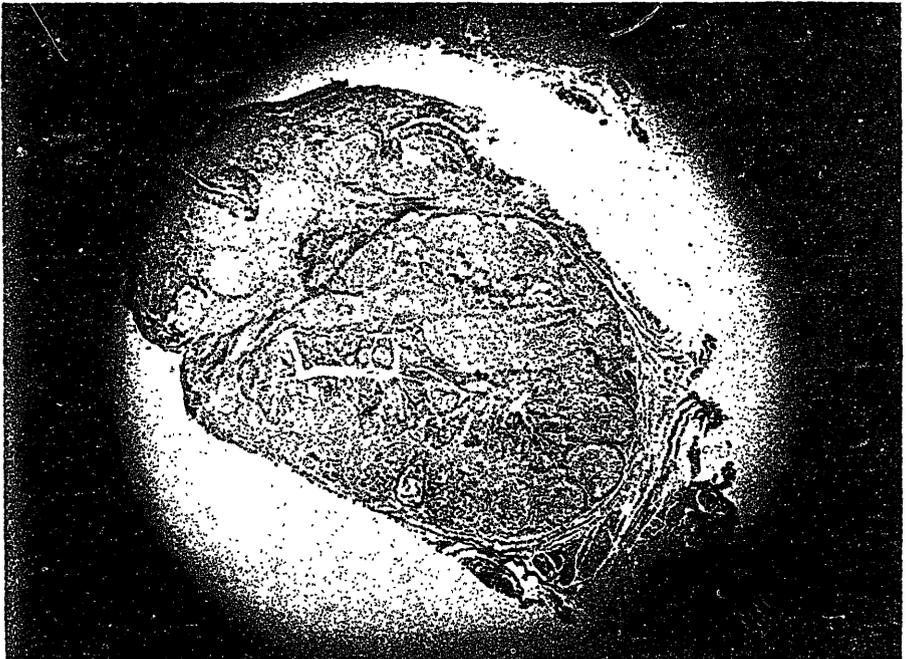


Plate IV.—Micro photograph of lobule of tonsil (case II) (very low power) shows central crypt with papillary overgrowth of mucosa lining it. The epithelial tissue can be distinguished from the lymphoid tissue by its deeper staining.

The condition represents merely an extreme development of a process frequently seen in a mild form in the posterior ends of the inferior turbinates, the so-called "mulberry turbinates."

Sections show only œdematous connectives tissue, covered with a thin mucosa of columnar type, containing a few degenerated mucous glands. The condition is to be distinguished clinically from ordinary polypoidal disease, though the histological changes are very similar. Wright* points out that owing to the papillary appearance of these growths they have sometimes been wrongly called "papillomata." In a papilloma the overgrowth is of the epithelial tissue which in these

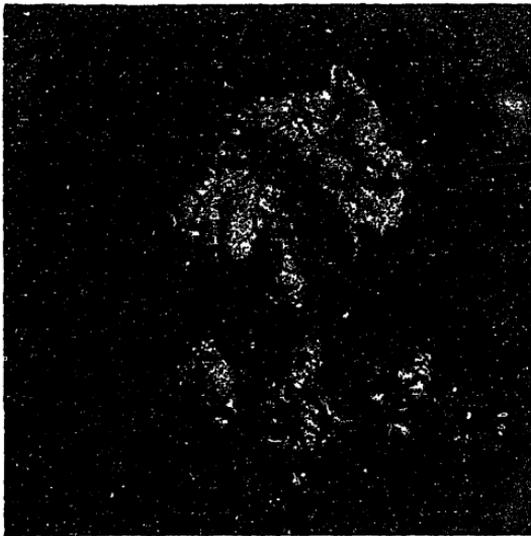


Plate II.—Lateral view of largest mass showing the papillary overgrowths.

cases is thinned and degenerated, acting merely as a covering. (See Plate III.)

The largest mass (see Plate No. II) measured 4.5 x 3.5 x 2 cm. Accommodation for this large mass was made possible by a considerable deflection of the nasal septum to the opposite side.

Healing took place rapidly, and the nose now presents a fairly healthy appearance.

The etiology is the same as that of chronic hypertrophic catarrh, various conditions leading to irritation and congestion. The œdema, the papillary form and the large size of the mass are the unusual features of this case.

*Jonathan Wright, *New York Medical Journal*, 1897, Vol. II, p. 653.

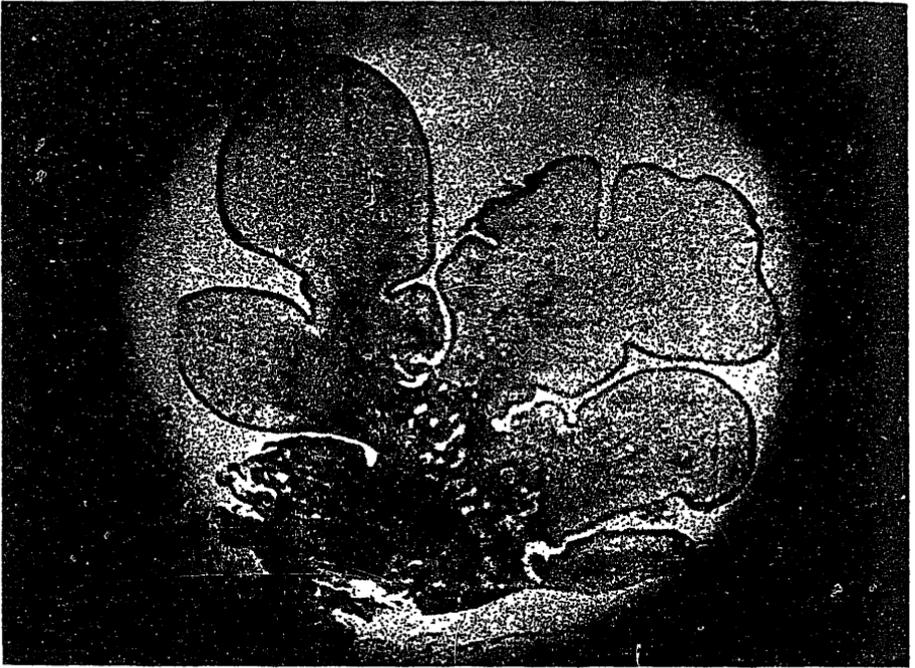


Plate III.—Micro photograph of section (very low power) of small portion of the polypoidal mass. The dark outline represents the thin covering mucosa of columnar epithelium which has taken no part in the overgrowth.

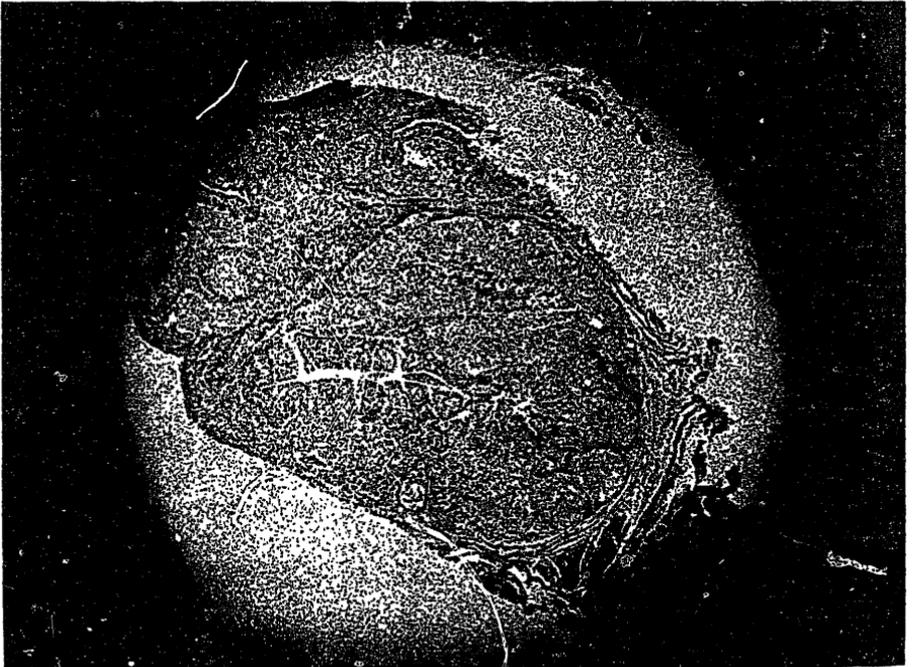


Plate IV.—Micro photograph of lobule of tonsil (case II) (very low power) shows entral crypt with papillary overgrowth of mucosa lining it. The epithelial tissue can be distinguished from the lymphoid tissue by its deeper staining.

AN UNUSUAL SPECIMEN OF TONSILLAR ENLARGEMENT.

BY

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This specimen occurred in the throat of a little girl aged three years who suffered from paroxysmal attacks of cough on lying down. The child was well nourished and her general appearance did not specially suggest great tonsillar enlargement.

Examination showed a very large irregular mass arising from the right tonsillar fossa and extending almost to the other side of the pharynx. A small depressed, greyish area at the upper part suggested ulceration; no tonsillar enlargement on the left side.

The mass, which was attached by a fine pedicle, was removed by Dr. Birkett with a cold wire snare with very little bleeding. A small adenoid was removed at the same time. The tonsil measured 3.5 x 3 x 2.5 cm. and weighed 6.5 grammes. Its shape was irregular and lobulated (see plate No. I. C.) and the crypts were few and inconspicuous on the surface. The greyish area referred to was rectangular, measuring 1 x .5 cm., slightly excavated in appearance. Sections showed masses of lymphoid tissue distributed around crypts the lining of which was proliferated and thrown into papillary folds and showed great lymphoid infiltration. See Plate No. IV. There was a rather large amount of fibrous tissue stroma. The greyish area showed no ulceration but a local thickening and papillary overgrowth of the surface epithelium. It would seem likely that the depressed appearance was due to the local overgrowth preventing this part from sharing in the general expansion of the tonsil. There was no evidence of malignancy in the overgrowth.

The unusual features of this specimen are, 1. The large size and irregular shape of the tonsil; 2. The unilateral and pedunculated nature of the mass; 3. The evidence of overgrowth of the crypt lining.

In closing I wish to acknowledge my indebtedness to Dr. Birkett for the opportunity of reporting these two conditions, both of which were from cases attending the Nose, Throat and Ear Department of the Royal Victoria Hospital.

The photographs were prepared by Mr. Wootton.

TUMOUR OF THE TEMPORO-SPHENOIDAL LOBE WITH DREAMY STATES.

BY

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The case which I wish to show before the Society to-night is one of pressure on the temporo-sphenoidal lobe with dreamy states. It seems to me this case is of sufficient general interest to justify its exhibition before this Society.

Dr. Hughlings Jackson first called attention to these dreamy states in connection with lesions of the temporo-sphenoidal lobe in 1876, but comparatively few cases have found their way into the literature in the interval. Farquhar Buzzard reported one case (*Lancet*, June 30, 1906), which I had had the good fortune to have studied in the National Hospital, Queen Square, and of which I happen to have here a photograph showing the new growth involving the temporo-sphenoidal lobe and spreading into the region of the lenticular nucleus of the right side of the brain. Buvor in his recent Lettsomian lectures refers to other similar cases.

The present case is a girl, aged 17, French Canadian who came to the Neurological Out-Door, Royal Victoria Hospital, in February last.

Illness started about three years ago with what she terms attacks of vertigo. The first attack came on when she was dressing in the morning. It commenced with a feeling of dread, she trembled as if from cold and felt as if she were dying. She says she did not lose consciousness. During this attack she saw, as if in a dream, a woman apparently trying to save a child who was drowning. She could not see the woman's face. The attack lasted about five minutes. After this she had on an average about one attack a week all of the same nature, ushered in by this feeling of intense fear and in which she always saw the same vision. She could recognise the woman as the same one in each attack, although she was never able to distinguish her face. The attacks were not accompanied by any aura of smell or taste, the face became pale and the lips cyanosed. They lasted about 4 or 5 minutes, there was no involuntary micturition nor biting of the tongue and she says no loss of consciousness. Sometimes she slept after the attacks. Only occasionally did she have headache, which was always on the left side of the head and face and on one or two occasions was accompanied by vomiting.

About 1½ years ago she had 18 attacks in 24 hours. About one year ago her eyesight began to get bad and in the course of 2 weeks she became blind. She never had diplopia.

Lately in the attacks she does not see any definite vision. She says she still dreams but now it is as if everything which had happened recently passed before the mind's eye, and later she does not know if these things have really happened or if they have been dreams. The attacks are in every other way similar to what they formerly were. The attacks have been much less frequent, but she complains rather more of severe headache, confined to the left side of the head and face and associated with a numb feeling, and she says she cannot taste so acutely on the left side as the right.

Otherwise she has been always healthy. No history of injury. In her family one brother has Potts' disease and there is tuberculosis on the maternal side of the family.

She is intelligent and cheerful; has no aphasia.

Post-neuritic optic atrophy with total bilateral blindness. R. pupil and L. both react on convergence, but not to light. The conjugate movements of the eyes were disturbed and irregular and associated with nystagmus, owing probably to the blindness.

Objectively, there is an area of diminution of sensibility over region of 5th nerve on left side of head (corneal and conjunctival reflexes absent on left side), with diminution of acuity of taste on left side.

Reflexes—Deep: knee-jerks hard to obtain. Abd. and epigastric relatively diminished on right side compared to left. Plantar flexion right and left.

From the history and the presence of post neuritic optic atrophy there seems to be no doubt of the presence of intracranial pressure, most probably a new growth: as to the location of the lesion—the dreamy states point to the temporo sphenoidal lobe, while the history of the pain in the region of the left fifth nerve and the diminution in sensibility over the region, as well as the relative diminution of the sense of taste on that side all make one suspect pressure on the gasserian ganglion. There is also, as is evidenced by the great diminution in the abdominal and epigastric reflexes on the opposite side some pressure on the pyramidal fibres above their discussion. So that it seems probable that the lesion is in the inferior temporal convolution just posterior to the uncinatè gyrus. From the family history one would suspect a tubercle.

Why we should have these dreamy states in lesions of this part of the brain is difficult to explain. Buzzard's case, in which the patient describes her condition by saying that her "mind seemed to go to other

places"; "she saw a room with girls working in it, she had never seen the room nor the girls before."—the lesion was in the *right* temporo sphenoidal lobe, and later was associated with paresis of the left side of the body and loss of abdominal and epigastric reflexes on that side. This would apparently exclude irritation of Déjérine's centre for visual memories in the left angular gyrus, if such a centre does exist, as taking any part in the production of these "dreamy states."

Possibly, as Dr. Hughlings Jackson suggested, we have in the temporo sphenoidal lobe the upper centres supplied by the cochlear branch of the eighth nerve conveying to us from the semicircular canals, etc., our perceptions of space.

Now, it is only when one suffers from paralysis of an ocular muscle that it is revealed to one that one sees double. Then the two hemispheres of the brain act independently, although normally they act in co-ordination. It is possible that we have here in lesions of the temporo sphenoidal lobes a condition comparable to diplopia, a condition of inco-ordination in the action of the centres for our conceptions of space producing as it were a mental diplopia.

THE WEAK AND THE FLAT FOOT.

BY

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Surgeon to the Children's Memorial Hospital.
Montreal.

Amongst the most common and yet painful deformities for which the surgeon is consulted is the "weak" or the "flat foot."

Nearly all orthopædic surgeons have contributed to the literature on this subject. Amongst the most important of these contributions are those of Lorenz, Hoffa, Ellis and Whitman.

Any surgeon, who visits the orthopædic clinics of both the old country and the new, will be struck by the diverse forms of routine treatment. In some clinics, a foot brace is rarely prescribed in the treatment of patients suffering from these affections, whilst in other clinics, an opportunity of suggesting such method of relief from the painful symptoms accompanying such deformities is rarely lost.

As all these clinics seem to relieve a proportion of those presenting themselves, it seems rational to suppose that there must be virtue in most forms of treatment, but that possibly one form of treatment is more suitable for some patients suffering from this affection than for others; that some by exercise, massage, proper boots and care in walking, may be relieved; that others may require a foot brace, and a few may not be relieved without operative procedures.

Last year, Osgood of Boston, in a paper read before the American Orthopædic Association, endeavoured to subdivide the affections now classified under the broad terms "Weak and Flat Feet" and to suggest the special form of treatment called for in each particular class, and it is to a modification of his classification that your attention is directed, these brief notes being simply an elaboration of his scheme of division.

Those interested in the details of the treatment are referred to the pathological conditions as studied in the works of Whitman, of New York, as it is on these that the rational treatment is based.

Hoffa has concluded from his study of these affections that of the acquired forms of flat foot, nearly 90 percent may be described, because of their method of origin, as of the static variety, consequently our attention may most profitably be devoted to this variety alone. This, the so-called static variety, may primarily be divided into two classes:—the flexible and the rigid. These will now be considered separately.

THE FLEXIBLE VARIETY.

In the majority of cases, this class represents simply an overstrain. This strain is accompanied by little or no muscular spasm. This class may be subdivided into (a) simple weak and (b) pronated feet.

(a) *Simple, Weak or Relaxed Feet.*

Here the longitudinal arch without weight-bearing is normal for the individual and here pronation is slight. Pain, perhaps referred to the calves, and discomfort are the chief symptoms. They are usually easily corrected and never need operative treatment. Here the patient should be taught to walk in such a way that his feet are spared all strain. His attention should be drawn to the leverage action of the foot and exercises should be prescribed to strengthen especially the tibiales as the most important muscular supports to the arch.

The patient should be directed to wear boots that are made to fit his feet and which should be heavily soled and having a low flat heel. No brace is necessary or advisable but the arch may be supported for a time by strapping with adhesive plaster as suggested by Whitman.

(b) *Pronated Feet.*

Here pronation (shown by an apparent sagging of the internal malleolus and an eversion of the foot which brings the line of weight-bearing too far to the inner side) is the essential feature. The longitudinal arch is depressed principally on weight-bearing. Exercises are the most important factors in the treatment of these cases, although the above treatment also should be prescribed. The exercises suggested here were

best described by Ellis in the "Lancet" of September 25th, 1886. In addition to this, a Thomas Heel may be used, or perhaps a temporary brace of celluloid or of spring steel of 21 to 26 gauge is employed. A rigid plate is never advised.

A more serious condition which really belongs to this class is:—*The Pronated Valgus Foot*. In this class the longitudinal arch is depressed with and without weight-bearing. The arch may be tender to plantar pressure and here also, eversion is most marked.

The rigid support is nearly always necessary in these cases to prop up and support the relaxed arch. This should gradually be raised until the normal is reached when it may be substituted by a spring brace which should be used during those hours when the feet are subjected to but little weight bearing, the rigid brace being retained at other times. The treatment suggested in class (a) should also be maintained and it is advisable to seek some correction and relief of pain and tenderness before employing the brace by the use of manipulation and strapping with adhesive plaster.

RIGID FEET.

In studying this condition, we must first discover the cause of the rigidity. Let us ascertain whether it is due to muscular spasm, muscular contracture or adhesion. Often it may be necessary to employ an anæsthetic to find this out. When rigid, through muscular spasm, although the deformity be corrected, the spasm tends to recur. This muscular spasm is probably due to reflex action. The types of rigid feet may best be named:—(a) The Peroneal Type, (b) The Contracted Muscular Type, (c) The Fibrous Adhesive Type, and (d) The Bony Adhesive Type.

(a) *The Peroneal Type.*

Here the foot is rigid through spasm of the muscles and especially of the peronei. These on attempted inversion of the foot, stand out in a position of extreme tension. The arch is often quite high. There is less likely to be disturbance of the circulation in this than in the other forms of rigid valgus. There is usually marked pronation. The scaphoid is rarely unduly prominent. The peroneal spasm is, as has already been inferred, probably of reflex origin. Under an anæsthetic it disappears although these may be congenitally or relatively normally shortened, which condition is demonstrated by muscular spasm. In this class probably belong most of those patients who have in the past resisted all forms of treatment. All surgeons who have been interested in the valgus have experienced failures in the treatment of

certain patients. Perhaps a brace has been used with results detrimental to the surgeon's reputation. Possibly the deformity has been corrected under an anæsthetic and placed in plaster of Paris in a position most satisfactory to the operator and yet a recurrence has followed.

The treatment of this condition is peroneal resection, although this to my mind cannot be defended on theoretical grounds; practically it seems to be the only efficacious measure in some cases. This type has been studied principally by Mr. Robert Jones, of Liverpool, and in his hands the resection of $\frac{3}{4}$ inch to one inch of the tendons of both peroneals with the destruction of their sheath at the place of resection, has been followed by most satisfactory results.

(b) *The Contracted Muscle Type* and (c) *The Fibrous Forms* may be considered together except as to treatment. In the first type tenotomies are necessitated. Division even of the tendo Achillis being performed in some cases to assure proper correction, whereas in the second type wrenching is usually all that is required primarily.

In these there is inability to invert at the mediotarsal joint. The arch is usually low. There are usually signs of passive congestion and there may be œdema. Flexion and extension are free. Attempts to passively invert are followed by pain and resistance. The latter may usually be overcome and the foot over-corrected by tiring out the muscles which are spasmodically contracted. If this is impossible even under an anæsthetic, the adhesions must be more forcibly broken down by manual manipulations or by the use of the Thomas Wrench, and the patient's foot put up in a position of extreme inversion in plaster of Paris. Osgood has suggested that the plaster is best removed in twenty-four or forty-eight hours. The foot at first gently and later vigorously manipulated and then returned into its plaster splint. Within a week active exercises may be begun. Massage is most useful in such cases. In the past, it has been the custom to leave the plaster of Paris intact for some weeks but orthopædists now have more generally adopted massage as a curative agent of prime importance in many of even the acutest lesions such as fractures, ligamentous ruptures and inflammatory exudations.

The secondary treatment indicated is the application of a well-fitting rigid brace of the class suggested by Whitman, of New York, and made from a cast taken of the foot early after correction. This must be used for some time in conjunction with the treatment suggested for Simple Weak Feet.

(d) *Bony Adhesive Type.*

The diagnosis in these cases is made by the history of a long standing deformity which is more or less irreducible even by wrenching under

anæsthesia. In the hands of Painter (*Vide Boston Medical and Surgical Journal*, August, 1905.) of Boston, excision of the scaphoid has been followed by excellent results in such cases.

The routine treatment suggested is an attempt under an anæsthetic, to manually or instrumentally better the position; failing in which the scaphoid may be excised with the object of decreasing the length of the inner border of the foot. This excision is to be followed by wrenching with the Thomas Wrench. The feet are then kept in the position of extreme correction in plaster of Paris for at least six weeks: subsequently a rigid foot brace is employed in conjunction with routine methods for strengthening the feet.

In conclusion, I would say that pain should be our indication for operative interference. Absolute sinking of the arch without pain rarely calls for interference.

NOTE.—The Thomas Heel is a low, flat heel running obliquely forward and inwards which terminates at an angle at the centre of the arch. The apex of this angle should be from $\frac{1}{8}$ to $\frac{1}{4}$ inch higher than any part of the heel, which should gradually fall away both in a posterior and external direction. Often a small piece of leather of the same thickness is let into the sole at its posterior and internal angle as well.

ANEURYSM OF THE INTERNAL CAROTID.

BY

W. A. MOLSON, M.D. AND A. H. GORDON, M.D.

The following case which occurred in the medical service of The Montreal General Hospital presented features of interest from the standpoint of diagnosis and also from the comparative rarity of the post mortem findings sufficient to justify reporting it.

A coloured man, a porter by occupation, was brought into the hospital unconscious on December 1st, 1906, and the following history was obtained from his friends.

He had been losing weight for a year, and since an attack of pneumonia six years ago had had a persistent cough, worse during the last year.

About 3 months ago, on rising in the morning, he complained of great pain in his head and fell back unconscious and remained so for about half an hour.

Recovering consciousness he vomited what was said to be blood.

For two weeks he remained at home with persistent headache, frontal and occipital, so severe as to keep him awake at night. After his fortnight's rest he tried again to work but had to give up on account

of headache. His appetite was good and he did not vomit. On Nov. 11th he had another attack of unconsciousness. It was said that he had a fit, and on recovering was unable to find his way home. He worked again the following day but did not go back again for two weeks. He went to work on Nov. 26th and on the morning of the 27th he complained of intense headache and said he was unable to see out of his left eye. With this he had also severe pain in his back but walked about that day without difficulty. The following day he remained in bed and did not want to talk, and the day after, the 30th November, was found by his wife unconscious, and breathing noisily. Inquiry into his family history showed that he was the father of five children, one alive, one born prematurely, and 3 dead of different forms of tuberculosis. Otherwise his history was negative. On admission he was found to be a well developed negro of 40, deeply unconscious, his breathing was laboured but regular. The face showed no paralysis but the right side of the body was limp and neither arm nor leg was seen to move, but there were occasional movements of the left side. The neck was markedly rigid and the head inclined slightly to the right. Both pupils were inactive to light and the right was contracted to a pin point. A pin prick was felt on the left side but on the right was not perceived. All the reflexes, superficial, deep, and organic, were absent but Kernig's sign was unmistakably present. The pulse was rapid, of high tension (160 mm.) and the radials much thickened. His heart showed enlargement laterally and the 2nd aortic sound was accentuated. Examination of the lungs showed a slight impairment of the note under the right clavicle with a few moist sounds. The urine was acid, sp.g. 1016, contained some albumin and a few casts. The eyes were examined by Dr. Mathewson whose report I quote:—"In the right eye neuritis is to be made out in upper part of the nerve only, and in adjoining retina. In the left eye there is a very marked neuritis with numerous hæmorrhages in nerve and retina, some being very large." On the following day the temperature rose and a clonic spasm appeared in tongue and lips with an occasional tremor of the whole body. Later in the day a distinct left sided paralysis of the face came on. A lumbar puncture made at this time withdrew 2 drams of blood stained fluid which contained no micro-organisms. A blood count showed a leucocytosis of 13400. On December 5th cardiac and respiratory failure ensued and death occurred. On this day some hours before death a distinct ptosis of left eyelid with external rotation of the eye were noted. The ante-mortem diagnosis was tuberculous tumour of the brain with terminal meningitis. The diagnosis of

tuberculous tumour was based upon the prolonged history of headache with attacks of unconsciousness, the loss of weight, prolonged history of cough and signs of pulmonary disease and family history of tuberculosis. The signs pointing to meningitis were: The sudden increase of symptoms within the last few days, the rigidity of the neck, unequal pupils, rapid pulse and elevated temperature, the leucocytosis, Kernig's sign, the crossed paralysis and the presence of a severe neuro-retinitis. Features which, perhaps, were not given sufficient weight were the rather pronounced cardio-vascular-renal changes, the age of the patient and the bloody cerebro-spinal fluid. This at the time was regarded as accidental. What the post mortem diagnosis was will appear from the autopsy report by Dr. R. C. Paterson from which I quote: "On reflecting the dura mater there is seen an extensive subdural hæmorrhage on the left side covering the whole cerebral cortex and extending down into the spinal canal. This comes from a small aneurysm the size of a marble on the posterior aspect of the left internal carotid. The aneurysm is saccular and is filled with clotted blood which is partly dark and partly light. The communication with the artery is a 2 mm. opening situated just at the junction of the carotid with the posterior communicating artery. There is a small rupture in the sac of the aneurysm on its under surface from which the hæmorrhage took place. The aneurysm lies at the beginning of the sylvian fissure, pressing against the inner aspect of the tempero-sphenoidal lobe. The arteries at the base of the brain are very sclerotic. The convolutions over the L. hemisphere are flattened from pressure of blood.

Eyes.—The right shows irregular retinal hæmorrhages external to optic disc. The left shows severe irregular hæmorrhages one at centre of disc, and another around it. The heart muscle is of good colour, the left ventricle much hypertrophied. The endocardium and aorta are free from disease but the peripheral vessels are much sclerosed. The lung shows a healed tubercle at the right base. The kidneys show a moderate grade of chronic nephritis. Aneurysm of the cerebral arteries was found by Osler 12 times in 800 autopsies, and in Newton Pitt's statistics, 19 times in 9,000 in Guy's Hospital.

MEETING OF CANADIAN MEDICAL ASSOCIATION.

The Committee on papers and business desire intimation of papers or other matters to be presented at the forthcoming meeting at Montreal, September 11th, 12th and 13th, 1907. Papers will be limited to fifteen minutes and are to be submitted to the Committee three weeks before the meeting.

T H E

Montreal Medical Journal.

A Monthly Record of the Progress of Medical and Surgical Science.

EDITED BY

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No. 6.

THE MORAL TREATMENT OF DISEASE.

New England produced and nourished Christian Science, Eddyism and many another cult and it is just that Boston, its centre, should institute the antidote. There are many men in that city who view with growing alarm the hold that faith healing, in whatever guise, has obtained and they realize that the science of medicine has too long neglected the opportunities offered for the cure of certain diseases by the employment of the predominance of the mind over the body in the class of cases suffering from what we call functional disease. Therefore a combination of church and the science of medicine has taken place, and at one of the churches in the city of Boston a dispensary has been established for the treatment of cases of disease, other than organic, to which each patient must bring from his or her physician, a certificate stating the willingness of the physician that treatment should be given.

The staff consists of neurologists and clergymen, and no legitimate means of treatment, such as hypnotic suggestion for example, will be untried, by the former, whereas the latter will doubtless aid by the employment of that sensible advice that has already done so much in the "suicide bureaus" established by the Salvation Army. Religious belief on the part of the patients, while considered desirable by the staff, will not form the subject of enquiry, and, finally, no payment will be accepted in return for the services offered. To the last particular, we would direct the attention of all who may be disposed to class this organization among the many "cults" and schools of healing, which have so much overrun the world.

Since material gain is not only unsought but refused, if offered, we think there is no doubt of the philanthropic intentions that underlie this movement; since scientific men are to do the work involved, we can be sure that the treatment will be carried out upon the basis of experience rather than upon that of fanaticism, and there can be no doubt that the modes of treatment usually employed by faith healers of all kinds will be applied with at least judgment and knowledge. For these reasons, we hope that the new venture will have a chance of proving itself, although there is no reasonable doubt that the fondness of mankind for being fooled will keep many away from a place where they may expect not to be fooled. When scientific men are ready to use the instruments that have often proved effective in the hands of the ignorant, we may look for a more discriminating use of those instruments than before: for the placing of one's body and mind in the hands of a man ignorant of what is already known of their structure and physiology is exactly comparable to asking the butcher to give a legal opinion, or the furnace man to prepare the architectural plans for a new house; where good property and good money are concerned, people are not such fools as to run risks. Before we leave this part of the subject, we may be allowed to direct our readers' attention to the series of articles appearing in recent numbers of McClure's Magazine upon the life and progress of Mrs. Eddy; they give not only an insight into the growth of Christian Science, so-called, but they form a most interesting case report, between the lines of which any one slightly skilled in psychical disease can easily read. We have merely mentioned, what is worthy of strong emphasis, that the physicians in charge of the dispensary in Boston, will not treat any disease known to be organic, because they boldly state their conviction that the mental treatment of disease has no effect upon the processes of pathological change.

A QUESTION OF PRIORITY—AND HONESTY.

It is sometimes difficult to assign in a given case the right of priority of discovery, where observers have made the same observations independently, in ignorance of one another's claims in the matter, but the case to which we here refer bears no such difficulties. In the *Lancet* of March 23, 1907, Dr. Bashford and Mr. Murray of London publish a paper upon "Carcinoma Mammæ in the Mouse" in which they say that Clowes and Gaylord, of Buffalo, have confirmed their findings with regard to the spontaneous disappearance of transplanted mouse-tumours; the facts are that when Clowes and Gaylord and Bæslack first announced early in 1905, the retrogression of a number of such tumours, Bashford commented on certain oversights that they had made, and made a most positive statement that but one in 3,000 mouse-tumours had retrogressed, and this one had not disappeared, but only diminished in size. Subsequent to this, Dr. Bashford made more than one publication including the Annual Report of the Cancer Research Fund, in which no mention of so important a discovery is recorded. In July 1906, previous to which time Clowes and Gaylord had repeatedly published confirmatory evidence of their observations, Dr. Bashford calmly reports a large number of "disappeared" tumours, and cases of immunity to inoculation by tumours, stating that this is confirmatory of what he had previously stated. This is, at least, suppressing the truth that the American observers had known and stated all this long before: but when Mr. Edmund Owen in his Bradshaw lecture, lauded Bashford as the discoverer of the spontaneous cure of cancer and the transmission of immunity, Dr. Bashford took no opportunity of stating that this was untrue and undeserved praise.

At the British Medical Association in Toronto, in August 1906, the state of affairs existing between these observers was well known, and Clowes remonstrated in a mild way with Bashford, who declared that he had no intention of doing any injustice to the former. Yet in the face of this, we see the repeated assumption of priority of discovery by Dr. Bashford: this disregard for plain statements of truth recalls Falstaff's account of the Gadshill affair, in every way but its humour, and we can see no other solution of the matter save that Dr. Bashford state definitely that he has no right of priority in this matter, and that the American observers are entitled to the credit which he has improperly attempted to take from them. The references to literature are uncontrovertible, are in our hands at this moment, are well known to many scientific workers on both sides of the Atlantic, and we need do no more than appeal to the fair-mindedness of English-speaking men to

be certain that justice will be done. We take the opportunity of stating that this reference is not inspired by any of the authors concerned, but arises from our own wish to make clear our views as to where lies the truth.

RECONSTRUCTION AT MCGILL.

The work of reconstruction and temporary provision for the needs of the Medical Faculty was begun as soon as the fire ceased burning and is going on uninterruptedly ever since. Rebuilding was at once determined upon, and the dismantling of the walls of the burned and damaged parts of the college building has already progressed far; although many details are as yet unsettled the authorities are determined that the buildings will be adequate, and adequate not only for the reputation of the Faculty of Medicine, but also for future needs and expansion. We may say that the insurance on the buildings has been adjusted, and the money thus available will amount to \$250,000. The valuation of the contents, equipment, etc., is proceeding as rapidly as possible, and this will produce possibly \$75,000 more. Yet, \$325,000 will not nearly suffice to rebuild; to reconstruct satisfactory fire-proof buildings on the same scale as before will cost nearly \$200,000 more than this, and it is likely that an increased capacity will be necessary. Plans have already been discussed and conditions drawn up for a competition limited to some half-dozen firms of architects; from which it is hoped that the new college will, as a building, be a credit to the University and to Montreal. The spirit that possesses the Faculty is indicated by the fact that its plans for future progress are stimulated, rather than arrested; it will be remembered that before the fire took place, the Faculty had decided upon the introduction in 1907 of the new five-year course, and, despite the disaster, there is no thought of abandoning that necessary change; this will, therefore, require consideration in the plans for the structure.

The crying need of the next few years is money; great as was the need three months ago, it is, by reason of the fire, now at least \$200,000 greater. In answer to the question, "Where is it to come from and we would say that it should come from every one who has at all the interests of McGill University at heart—nay, even who has an interest in university education. This means graduates, faculty and laity. From the faculty have already come offers of willingness to subscribe, and it may be here said that the opinion is widespread that the faculty members are the first ones to benefit by the medical school. We are betraying no secret when we say that the members of the faculty are

not by any means well paid—not even decently paid, as the lay mind conceives payment. If the Medical Faculty were to disappear to-morrow, it is doubtful if every member of the teaching staff would not be monetarily richer for the employment otherwise of his time. We say this to emphasize the fact that it is McGill University that needs the Medical School, and not the faculty, and that therefore their willingness to assist has not necessarily any self-seeking end. As to the graduates, some have already expressed their readiness to assist, and this is necessarily a matter for each man's consideration of how much he owes to his Alma Mater. Lastly, as to the lay donors, from whom the greatest part of the financial assistance is hoped, we venture to think that our own university has been too much left to the hands of the few, and that McGill has, perhaps, received less money than if she had had many generous patrons. Several have given princely sums, some have given large sums, and this being so, the public mind has come to regard it as a settled affair that the University should look, on such occasions, to these men for help. This is by no means fair to the gentlemen in question, because they have always been far from attempting any overweening authority or prominence because of their gifts; and even if from their wealth they should be willing to contribute once more, they would nevertheless be gratified to see that their example was being followed by others, albeit in a smaller way. Not for a moment would we say that gifts should be made with any desire of pleasing this or that patron, or this or that body of men; gifts should be made because the University stands in the direst need of them. If McGill has brought credit to Montreal, to the Province of Quebec, to Canada,—and who will gainsay it?—the time has come to acknowledge it; if McGill is to continue to spread the reputation of Montreal and the Province of Quebec and Canada, it is now that she needs the help to do it; the rich of the country have recognized that a university is one of the sanest investments that can be made, having in view a country's development, and this being sound wisdom, the principle must not be relinquished.

THE COMING SESSION AT MCGILL.

“God tempers the wind to the shorn lamb.” It is not a little remarkable that while more than two-thirds of the medical building have been destroyed, the remaining rear part, damaged though it was, lends itself admirably to the needs of the first two years of the curriculum, so that with relatively little alteration, and that of a temporary character, all the teaching of these years can be, not merely undertaken

within it, but undertaken without crowding or confusion. The large lecture-room, capable of seating 400, is of such a form that it can be divided to make two good theatres; the department of Medical Chemistry is intact, as are those of Pharmacology and Hygiene; the research rooms of the Physiological department are destroyed, but the main laboratory is practically undamaged as regards its fittings; the large and well-lighted class-room of pathology, which had the greater part of its fittings destroyed by fire, affords an admirable dissecting room, being, in fact, as large as the old room which was destroyed. The laboratories of pathology at the General and the Royal Victoria hospitals provide, in the meantime, the necessary material and facilities for teaching both pathology and bacteriology. The work of teaching can thus be carried on during the next session and until the college is rebuilt, without serious disturbance, the students of the later years being encouraged to receive most of their teaching at the hospitals, in exact accord with the desires of the Faculty as indicated in the curriculum drawn up for the five-years course; in other words, the increased use of the hospitals for teaching purposes during the last two years is, through the fire, brought about two years earlier than would otherwise have happened.

A DISTINGUISHED HONOUR.

Dr. Thomas McCrae, Associate Professor of Medicine in the Johns Hopkins University, has been elected a Fellow of the Royal College of Physicians of London. We congratulate Dr. McCrae upon his attainment to the honour at such comparatively early years. There are now but two Fellows of the College of Physicians in America, and if we mistake not, the last occasion on which the degree was conferred on this side of the Atlantic was the election of Dr. William Osler in 1883.

Reviews and Notices of Books.

THE JOHNS HOPKINS HOSPITAL REPORTS. Studies in Urological Surgery, Vol. XIII. Baltimore: The Johns Hopkins Press, 1906. Hugh Young.

The work of the Genito-urinary department of Johns Hopkins, which from time to time has appeared in the *Bulletin* is here collected and presented to us in a concise and serviceable form. Twenty-one studies in all, beginning with Young's modification of Kollman's 5 glass test under the formidable title of "The Seven Glass Test," ending with a

description of the department as organized in the Hopkins Hospital, they embrace subjects of genito-urinary interest, many and varied. Bladder diverticula; the use of the cystoscope; paraurethritis; urethro-rhagia; urethral diverticula; recognition of tubercle bacilli in the urine, and many other subjects are here treated with the characteristic care and carefulness of Young's clinic. To these articles, all apparently inspired by Young, other members of the staff, present or past, churchman, Watts, Fowler, Geraghty, Stevens, Lehr, Bætjer, all contribute; in fact, without competent and keen assistants, the work had been impossible.

Among the more notable papers is that dealing with chronic prostatitis—a most painstaking, elaborate, and exact treatise. The bacteriology of the disease, almost always the result of an infection, is of interest; out of 19 cases carefully examined but six showed bacteria of one form or another. That the gonococcus, however, is the worst offender in this respect is the firm conviction of the author, if we understand aright. What makes the paper and all others here contained not only of more interest, but of infinitely more importance as a scientific contribution, is the number of clinical and pathological cases, described in detail, which serve to illustrate and confirm the authors' contentions.

"Bladder diverticula" is a most interesting paper and quite the best it has been our privilege to see on this little understood subject. From a surgical standpoint this is not surprising, as to Young belongs the honour of having a larger number of operated cases to his credit than to any other reporter, three out of a total of eight cases in the literature. This contribution serves also to demonstrate the faith of the Hopkins Genito-urinary department in the proper use of the cystoscope; to quote verbatim, "Increasing experience impresses me more and more with the great importance of careful cystoscopic examination," other methods, even cystotomy, "are not visual, consume valuable time when delay is to be avoided and at best are never so thorough as visual exploration with the cystoscope." The diagrammatic representation of various cystoscopic findings, a most ingenious device, as well as an old familiar friend, is here described. Young himself, by the by, is one of the earliest to invent a retrograde cystoscope, but has been unnatural enough to sacrifice his child for the sake of a simpler procedure.

A question, perhaps, of more widespread interest—viz., the differentiation of the smegma bacillus from the B. tuberculosis—is treated at length. As is well known the methods advanced for distinguishing these are legion. Here the conclusions of the investigators possess at any

rate simplicity. In effect: there is no method of rapid differentiation—morphology—preliminary treatment with alcohol, etc., staining are not sufficient in very many cases to distinguish one from the other. Cultures and animal inoculation consume too much time, where time is valuable. The authors are, therefore, reduced to removing all the smegma bacilli from the urethra, etc., before the collection of urine; this, as is vouched for by a long and elaborate series of experiments, they are always able to do by thorough washing and irrigation. This has proved superior to catheterization. Where then, after such preliminary treatment acid fast bacilli are to be found in the urine, we may conclude we have to deal with the tubercle bacillus. Our own experience would tend to support this view.

While no definite description of the perineal prostatectomy advanced by Young is to be found yet many applications of the method with necessary explanations occur, *e.g.*, "The modern operation of perineal lithotomy." The perineal route is advanced on the ground of lower mortality, even in these days of aseptic surgery. Churchman, in "Para urethritis," by which he means an infection of the abnormal sinuses and diverticula about the glans penis, shows how impossible it is to kill off the gonococcus by local application of even strong measures, a fact which shows, to use his own words, "Why gonococoides are as numerous as uric acid solvents and equally effective."

Pyonephrosis due to the typhoid bacillus—ten years after the original infection—demands more than passing notice. "Nephritis and hæmaturia," by Fowler, discussing, as it does, the question of the so-called hæmophilic kidney or nephralgic hæmaturique—or angioneurotic kidney, is notable. Israel and Roosing, among others, have urged that careful pathological search in these cases will reveal some definite lesion. Senator, on the other hand, holds out for a possible unexplained hæmophilia. The present paper tends to support the former view—in the present instance a chronic nephritis.

We miss the date of publication of these papers—all, however, can be found in the Hopkins *Bulletin*. They represent collectively the work of the department and, therefore, have an added interest. Altogether the volume is one it has been no small pleasure to read, containing as it does a large quantity of interesting material and many useful references. We congratulate Dr. Young and his assistants most heartily, and trust material for a second volume will soon be accumulated.

MEDICAL DIAGNOSIS; A Manual for Students and Practitioners. By CHARLES LYMAN GREENE, M.D., Professor of the Theory and Practice of Medicine in the University of Minnesota; Attending Physician, St. Luke's Hospital, the City Hospital and the St. Paul Free Dispensary, etc., etc. Philadelphia: P. Blakiston's Son & Co. Limp leather, 683 pages, with 7 coloured plates, and 230 illustrations. Price, \$3.50.

This is not a mere compend, nor is it intended to replace the larger works on the subject, but is an admirable "manual" which deserves the name. It should become popular, especially with students. The matter is well arranged, and the book well written. Symptomatology and diagnosis are treated concisely and adequately. Special features deserving of commendation are the helpful marginal annotations, and the numerous illustrations which from their clearness lose nothing by their unusually small size. There is a full index. The typography and paper are excellent.

A MANUAL OF NORMAL HISTOLOGY AND ORGANOGRAPHY. By CHARLES HILL, Ph.D., M.D., Assistant Professor of Histology and Embryology, Northwestern University Medical School, Chicago. 12 mo., 463 pages, with 312 illustrations. Philadelphia: W. B. Saunders Co., 1906. Flexible leather. Price, \$2.00. Canadian agents; J. A. Carveth & Co., Toronto.

This manual is intended for elementary students, and is well adapted to its purpose, combining brevity, and conciseness. Embryology is kept well to the fore, and here and there in the text interest is stimulated by passing reference to practical points in pathology. The structure of the teeth is discussed with unusual fullness. The illustrations are many and excellently clear.

TICS AND THEIR TREATMENT. By MEIGE and E. FEINDEL, with a preface by PROFESSOR BRISSAUD. Translated and edited with a critical appendix by S. A. K. WILSON, M.A., M.B., B.Sc., resident Medical Officer National Hospital for the Paralyzed and Epileptic, Queen Square, London. London: Sidney Appleton, 1907. Price, 7 shillings.

Meige and Feindel commence their monograph on the Tics with the interesting confessions of a victim of the disease. They trace the pathology and aetiology of its various forms, showing how, starting as a voluntary act, under the influence of weakened will power, force of repetition changes the voluntary act into an automatic habit. Tics

are thus carefully differentiated from muscular spasms in which the cortical intervention plays no part. This primary voluntary act may be the result of peripheral stimulus originating a cortical reflex whose expression is a motor reaction, or its reaction may take place where the stimulus is entirely cortical; in other words, an idea may be the starting point of a movement which may in its turn degenerate into a tic. Mere repetition does not, however, evolve a tic in every case—"not all who would may tic." The psychological predisposition in the shape of volitional instability is necessary. The various forms of treatment with special reference to the re-educative methods are taken up thoroughly and clearly.

Meige and Feindel's work is indeed well enough known, at least in Europe, and Dr. Wilson is to be congratulated on having produced a most excellent and readable translation which is an acceptable addition to English medical literature.

C. K. R.

Medical News.

AMERICAN MEDICAL EDITORS' ASSOCIATION.

The 38th annual meeting of this Association will be held at Atlantic City on Saturday, June 1st, and Monday, June 3rd, with headquarters at the Marlborough-Blenheim Hotel. This active Association now numbers nearly 150 members with many applications in hand for action at the coming meeting. An interesting programme has been prepared, and the following are among the papers to be presented:

PRESIDENT'S ADDRESS.

The future of Medical Journalism, by Jas. Evelyn Pilcher, M.D., Ph.D., LL.D.

Shortcomings of Physiology, the Chief Obstacle to Medical Progress; The Need of Editorial Intervention in such Questions, by C. E. and de M. Sajous, M.D., Philadelphia, Pa.

How Can We Make Medical Journalism Better?

- a. For Our Readers.
- b. For Our Advertisers.
- c. For Ourselves.

By W. C. Abbott, M.D., Chicago, Ill.

A Word or Two from an Ex-Journalist. By Samuel W. Kelley, M.D., Cleveland, O.

The First Medical Journals. By O. F. Ball, M.D., St. Louis, Mo.
 The Psychology of Medical Journals, from the Reader's Standpoint.
 By T. D. Crothers, M.D., Hartford, Conn.

Further Reflection on the Official *versus* Independent Medical Journals; One Year's History. By Wm. J. Robinson, M.D., New York City.

Journalistic Suggestions from a Semi-Disinterested Standpoint. By Wm. Porter, M.D., St. Louis, Mo.

The Situation. By C. F. Taylor, M.D., Philadelphia, Pa.

Some Aspects on Medical Journalism. By W. F. Waugh, M.D., Chicago, Ill.

The Neglect of American Mineral Springs and Climatic Resorts by Our Medical Press. By G. T. Palmer, M.D., Springfield, Ill.

A Few Feeble Remarks. By W. A. Young, M.D., Toronto, Ont.

The American Medical Editors' Association, Past, Present and Future. By Joseph MacDonald, Jr., M.D., New York City.

On account of the largely increased membership of this Association, it is anticipated that the coming meeting will exceed any prior meeting in point of attendance.

The Annual Editors' Banquet, which is always the social event of the week, will be held at the Marlborough-Blenheim Hotel on Monday evening, June 3rd.

THE QUEBEC SANITARIUM.

At a meeting of Protestant citizens of the City of Quebec, held on May 21st, Hon. Richard Turner, the chairman, announced that the subscriptions had reached the sum of five thousand dollars yearly for five years for maintenance, and twelve thousand seven hundred dollars for the building fund—a total of \$37,720. With this in hand building will be begun and it is hoped that the building will be occupied in the spring of 1908 by sixteen to twenty patients and the staff. The building committee favour construction of a building similar to the Reception Cottage at Saranac Lake.

We need scarcely say how admirable this movement on the part of the Quebec citizens is nor how heartily we wish them good fortune with their work.

It has been determined that the Sanitarium will be situated at Lake Edward, P.Q., where the Government has given a choice of two sites, each comprising two hundred and fifty acres; one on the banks of the Batiscan a mile or two south of Lake Edward will, in all probability, be chosen, where railway facilities are possible, and a station will perhaps be provided by the Quebec and Lake St. John Railway.

DR. JOHN McMILLAN, OF PICTOU.

By the death of Dr. John McMillan, which occurred at Pictou, N.S., early in May, the profession has lost one of those who represented its very best type. Born in 1834 at London, Ont., a graduate of Queen's and McGill, Dr. McMillan practised at Wallace, Sherbrooke, New Glasgow and Pictou. His fiftieth anniversary as a practitioner was suitably acknowledged by his fellow-townsmen but a few weeks ago, and after a few weeks illness, he died, not rich in money, but rich in the love and gratitude of friends and patients. His loss is referred to by the local papers with a depth of sympathy and sorrow that one rarely sees; and those who knew him personally say that it is but the natural outcome of a long life unselfishly squandered for others; the labour and care he gave freely stands to-day in the reputation he gained for generosity and unselfishness and duty well done.

The Pathological Society of Philadelphia, which is one of the oldest, if not the oldest society, of its kind on this Continent, celebrated its semi-centennial in May, 1907. Instituted at a time when pathology scarcely had a foothold in this country, it has kept pace with the development of that science, and has had a share, not only in giving Philadelphia its eminence as a medical centre, but also in fostering the scientific spirit in America.

The celebration, which may rightly be considered an event of national importance, extended over two days, Friday, May 10th, and Saturday, May 11th, 1907. On the first day, addresses were delivered by Dr. Frederick G. Novy, of Ann Arbor, Michigan, on "The Role of Protozoa in Pathology"; by Dr. Simon Flexner, of the Rockefeller Institute, New York, on "The Newer Pathology"; and, by Dr. A. E. Taylor, of the University of California, on "The Dynamic Point of View in Pathology."

In the afternoon, at four o'clock, a commemorative meeting was held in the Pennsylvania Hospital, where the first meetings of the Society, in 1857, took place. At this meeting, Dr. William Osler, Regius Professor of Medicine, Oxford University, delivered an address on "Pathology and Practice." At a dinner in the evening, prominent men from all parts of the country responded to toasts. An exhibition meeting of interest to pathologists, clinicians, and surgeons was held on Saturday, May 11th.

Dr. Paul Prager, of Vienna, recommends that an imprint of the palate be taken as a means of identification of criminals, holding that it is a more reliable method than that of using the finger prints.

The American Medical Congress held at Washington on the 6th, 7th and 8th of May was largely attended, a number of physicians from Toronto and Montreal being present. The members of the Congress were received at the White House by President Roosevelt.

Dr. William Osler was present at the annual McGill convocation on May 4th. He has already returned to England, after attending the Congress at Washington, and the Semi-Centennial of the Philadelphia Pathological Society.

Dr. G. Tweedie, for many years resident superintendent of the Isolation Hospital, Toronto, has resigned from that post, after sixteen years service.

Prof. Gustave Killian, of Freiburg, Germany, attended the Ontario Medical Association in Toronto, and visited Montreal on his way eastward.

The Medical Reading Room is at present in the Arts Building, where the current periodicals can be consulted.

Dr. James D. Mosher, of Rawdon, Hants Co., N.S., died early in May.

R. D. Rudolf, M.D., M.R.C.P., of Toronto, has been elected a member of the Association of American Physicians.

Retrospect of Current Literature.

SURGERY.

UNDER THE CHARGE OF GEORGE E. ARMSTRONG.

R. P. Campbell, B.A., M.D. "Retrospect of the Surgical Literature for 1906-7 of the Thorax and Genito Urinary Organs."

Progress in these departments during the last year has been of the steady, plodding order rather than of the firework description involving as this order does, quantity rather than quality. In the recognition of modern methods of diagnosis and treatment of diseases of the genito-urinary tract, and in the placing of these methods on a sound and firm

foundation of fact, we find the greater part of last year's labour in this section. This applies more especially to the kidneys and to the prostate: gland only so far as the other organs of this system depend on these has any marked change been effected.

To begin with the urethra—everything remains in *statu quo*. Urethritis of gonorrhoeal origin and its treatment are said to be as old as the Egyptians, and, with a partial exception, only those periodic variations occur which one learns to expect in all medical questions, whose foundation is unsatisfactory. The partial exception refers to the work of Wright, who has achieved in acute cases of urethritis and of gonorrhoeal arthritis a very considerable amount of success. The chronic and sub-acute cases, however, do not lend themselves so readily to the influence of the vaccine.

The testicle detains us only long enough to mention that the influence of the X-rays on these organs has been largely confirmed, and, at least in some cases, a definite aspermia is found to result.

We have already had an opportunity to discuss the prostate before this society, so that on this occasion suffice it to remind you that the long debated question of treatment of prostatic hypertrophy is practically settled in favour of radical treatment, either by the suprapubic or perineal route, while the Bottini operation still finds supporters in certain suitable cases. (Sonnenberg; Bottini; Kummel, special Bottini; Young, perineal Bottini.)

Freyer (206 cases, 8 per cent. mortality) who, whatever his pretensions, has done much to bring the operation before the public, is still in controversy with Mayo Robson, Fuller and others over the questions of priority and originality. His method, as you remember, is the suprapubic one, enucleation of the gland by his finger. His claims are that the entire gland is removed and the urethra left intact, both of which facts seem to the anatomist an impossibility, while the pretension to priority is ludicrous in view of the work of McGill and Fuller. Mr. Freyer is, however, apparently equal to all his adversaries.

In the diagnosis of prostatic disease the importance of cystoscopic examination of the prostate has become of paramount importance. So many prostates may feel large to the examining finger and prove innocent as far as the bladder is concerned, and contrariwise, small per rectum and with a large middle lobe, that the preliminary examination has found a part in most large clinics. Young—among others on this side—Caspar in Germany, Fenwick in London, are its advocates. Results from this operation are so good that 8 per cent for suprapubic and 6 per cent mortality for perineal have been given in two or three

(even four) large series of cases. The origin of the enlargement has not received any further light, it does not seem to be closely connected with prostatitis, acute or chronic, but the trend of opinion is to that of a new growth—on the other hand the infective origin of chronic prostatitis has gained ground (*J. H. H. Bulletin*), and whereas Young and others contend that gonorrhœa is the most frequent cause (this in spite of the fact that it is but rarely found), others again hold a more conservative view.

In an extremely interesting paper in *Am. Journ. of Surg.*, dealing with carcinoma of the prostate, Young called attention to the fact that this disease could be treated radically. The growth as is well known tends to extend backwards along the lymphatics, which run between the seminal vesicles. The growth is slow and metastases commonest in the bones. By an extensive dissection of the perineum and removal of the neck of the bladder and of the prostate, going almost as far back as the urethral openings, Young has several cases living without evident disease and good bladder control.

Work on the bladder itself has not been extensive; beyond some experiments on dogs by Bell, reported in the *Practitioner* for March, where the importance of the so-called involuntary sphincter was demonstrated, nothing is worthy of notice, except some work on tuberculosis by Walker, of Baltimore, which we will refer to in speaking of the kidney, and a paper by Young, advocating a return to the perineal route in operating for stone. Papillary tumours of this organ have also come in for some attention, but conclusions are vague. The operating cystoscope offers perhaps the best method of dealing with them, but at best results are poor and recurrence the rule.

If the literature of the lower tract has been scanty, that dealing with the kidneys has been profuse, more especially in the German, where the functional diagnosis of these organs has received more than the usual modicum of attention. Nothing strikingly new in the method of estimating the function has been brought forward, but such tests as the methylene blue test have been largely discarded, while the importance of urea and specific gravity determinations has been enhanced. The freezing point of blood (Cohn .53 to 1; Caspar .56) and of the urine, and the production of phlorizin diabetes have each gathered a small number of adherents. Kummel appears as the firm advocate of the former, claiming that since his dependence on the test he has had no case of kidney death except in two striking instances where he neglected its warnings. Caspar has upheld the phlorizin test as giving him equally good results, while Israel and Roving, among many others,

have held that these tests may be neglected. With few exceptions, however, the value of a comparison of the work of one kidney with the other has been brought forward, and if we may express an opinion, it is to this rather than to any one test that the undoubted improvement in result is due. Kummel further made a statement in a paper in *Surgery, Gynaecology and Obstetrics*, of January, '07, that stone in the kidney could with proper technique be demonstrated in every case, a statement corroborated by Israel and Berk, *J. Am. Med. Ass.*, December, 1905, which will appear to most of us too gross, but with a very considerable amount of truth. Most surgeons of genito-urinary interest have discarded the segregator in favour of the ureteral catheter. Whilst among German surgeons, and in a limited number of American clinics, the use of these catheters is in vogue, amongst the English surgeons simple cystoscopic observations of the bladder and ureteral orifices and of the streams of urine issuing from these seem to be the main points of reliance. It is remarkable in what numbers hypernephromata are now found: in the literature of the last year they are of the commonest occurrence. Tuberculosis of the kidney is now looked upon by many as a primary infection, if not pathologically, at least clinically and therapeutically—a number of instances have occurred in which disease of one kidney has persisted for long years without disease elsewhere, except, perhaps, in the bladder, and where removal has apparently resulted in complete cure. On the other hand, primary tuberculosis of the bladder has ceased to exist—in 10,000 autopsies cited by Walker, but one case could with any degree of certainty be considered as primary tuberculosis of the bladder—the infection as a rule is from the kidney. The proper use of tuberculin offers the best method of treatment.

The question of a one-sided nephritis has occupied everybody's mind—the ureteral catheter promised to throw some light on this—but success has not been great: undoubted cases of one-sided nephritis have been reported, but in many instances the original cause has been traumatism, and here the matter rests to-day. The question of idiopathic renal hæmorrhage is, perhaps, brought one step further, and seems now to rest on an inflammatory basis, as many of these cases on careful and methodical pathological examination have shown evidences of more or less advanced nephritis.

The effect of anæsthetics, local and general, on the kidneys, though by no means new, is of importance. Thompson (*B. M. J.*, March, 1906) found that all general anæsthetics completely interfered with kidney function—suppression—for a more or less extended period, a fact our own experience substantiates.

Other literature deals with the effect of X-ray on kidney tissue. Experimentally, a definite nephritis is produced.

Decortication has come in for the usual amount of criticism. Experimentally on rabbits results show that for a time part of the kidney performs a greater amount of work than formerly—that a new capsule, harder and denser, is formed without the elastic tissue of the normal capsule, but that a definite blood supply does exist through this capsule and surrounding parts. It is, according to Israel, probable that in cases of complete suppression or threatened uræmia, decapsulation may be a life-saving operation.

Lavage of the pelvis of the kidney by means of the ureteral catheter has not advanced beyond the experimental stage—nor have such diagnostic methods as filling pelvis with collargol-solution and taking an X-ray skiagraph.

Nephropexy is still under debate—various new operations have been described, all with remarkable results. It is, of course, recognized that it is but a part of a general laxness of abdominal organs, though usually the first to give rise to symptoms. The voice of the surgeon is still in favour of operation.

Here, of course, we should discuss syphilis and its spirochæte, but this has already figured before you on several occasions. It is not, I think, going too far to say that the spirochæte is the cause of this disease—it has been found in all its lesions, in all its stages. It has fulfilled Koch's postulates, except that it has not been grown outside the body, and therefore inoculation experiments are partially vitiated. The position then for the present must remain an expectant one. The experimental work with the organism belongs, perhaps, more to the field of bacteriology than surgery. It is chiefly that of Levaditi and his followers, and Neisser and his clinic—the former with cornea of the rabbit, the latter with the higher apes.

In the work which has been done on the thorax there is nothing extraordinary. Perhaps the most sensational has been the bloodness which has marked surgical interference in matters pertaining to the heart and pericardium. The number of wounds of this organ which have now been surgically treated and reported has greatly increased so that suture of the ventricles and pericardium is no longer a startling event. Wounds of the auricles have continued as dangerous as before.

The massage of the heart in connection with asphyxia or heart failure under operation has also been brought more prominently before the surgical world—the three methods being through the diaphragm, without incising this, and by incising this, and thirdly, through the chest

wall. Success is by no means the rule, but its advocates claim that in a number of cases it has proved of value—in fact, life-saving.

Pericardial effusions—serous in some cases and purulent in others—demand surgical interference; the trend of the year has been in all large effusions, purulent or otherwise, to open the pericardium by thoracotomy rather than trust to paracentesis. Results are, however, questionable. (Sjovall of Sweden).

Pneumothorax, its prevention and cause, have occupied the minds of surgeons in this region to no small extent. In Germany the use of Sauerbruch's *kastchen* has become more general, the old strife between those advocating a lowered pressure over the wound and those a higher pressure over the head is still going on. The idea—though generally known—has not been practised outside Germany. It may be remembered that Mikulicz's idea was that by its means a resection of the œsophagus might be rendered possible. This was found not to be the case, and probably our present methods of avoiding pneumothorax are sufficient to avoid the use of a cumbrous and expensive apparatus. Indeed, English surgeons, as well as others, have called attention to the fact of how, in many instances, pneumothorax does not occur after wounds of the thoracic wall, and claim that besides the question of air pressure there is a distinct cohesion between both pleural surfaces, which requires some force to overcome. Operations then which deal solely with the pleura, the lung being in situ, are simple enough, and it is only when we seek to retract the lung that pneumothorax is unavoidable.

A number of cases of wound of the thoracic duct are reported, some where simple packing has resulted in recovery; others where in space of three weeks death occurs, are to be found.

A long article dealing with the thymus and its diseases, more especially hypertrophy and operative measures for its relief was read by Reber before the Surgical Congress in Berlin last April. He finds, among other important facts, the following: The physiology and pathology are still extremely dark. The thymus may grow up to twenty years; it, of course, as a rule, ceases long before this. Its size is of importance for the individual, but of equal importance is its shape—a large, flattened thymus causes less trouble than a short, thick one, which may press upon the trachea. The chief symptoms of enlargement is dyspnoea, that is generally inspiratory in character, but may also affect expiration, in addition a welling up in episternal notch is frequently seen. The enlargement may or may not be associated with general lymph hyperplasia, but this is not as common as formerly thought. The so-called *status lymphaticus* is too vague an entity

for him to altogether believe in. When dyspnoea is extreme he has operated in several instances, generally by suprasternal incision and removal of the gland piecemeal. It is possible also to remove the sternum in part and operate.

During the year Kocher published his 3rd thousand of goitre cases. Some facts relating to these are of interest, though, perhaps, not strictly speaking, belonging to the thorax. It comprises the operations of five years. The growths were 36 malignant, 3 deaths; inflammatory 8, no death; Basedow 51, 1 death; ordinary goitre (cystic adenoma) 904, 3 deaths; 7 deaths in all. Stay in hospital, 10 days. No infection occurred which at all endangered the patient's life; this is due to the simple wash up—alcohol and water, no antiseptics being used on the wounds, and accurate ligature of all bleeding points. He still adheres to local anæsthesia when this is at all possible. The promiscuous use of thyroid extract has done more harm than good. His low mortality he ascribes to careful attention paid to the heart and blood pressure; he will not operate on late cases of exophthalmic goitre, but says that to expect results, one must operate early.

Before the British Medical Association at Toronto, MacCallum of Hopkins, read a paper on parathyroids in man. From these cases taken from the surgical department of Johns Hopkins Hospital, tetany following operation would seem absolutely dependent on the removal of these bodies.

Kausch in the *Medicinische Klinik*, '06, has a paper dealing with foreign bodies of the trachea and œsophagus. By means of the œsophagography perfected by Mikulicz, he was enabled in many instances to remove foreign bodies, such as coins, false teeth, etc., from these passages without a cutting operation.

Other references to the above are:

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Nicoll.—B. M. J., Sept., 1906.

Fenwick.—Jour. Am. Med. Ass., Oct., 1906.

Ferguson and Duval.—Ann. d. Malad. d. org. gen-urin., No. 20, 1906.

Tenny and Chase.—Jour. Am. Med. Ass., May, 1906.

Goldberg.—Zeit. f. Chir., No. 8, 1907.

Young.—Urological Studies, Johns Hopkins Hospital, 1907.

Young.—Amer. Jour. of Surgery, 1907.

Rovsing.—Zeit. f. Chir., No. 10, 1907.

Halle and Motz.—Ann. d. malad. d. org. gen-urin., No. 3 and 4, 1906.

Harris.—(Decortication) Johns Hopkins Hospital, Bulletin, Dec., 1905.

Stirn.—(Decortication).—Grenzgebiete z. Med. u. Chir., XIV.,

Martini.—Von Langenbeck's Archiv., No. 78.

Levadite.—(Spirochaete). Zeit. f. Bakter., 1907.

Guibal.—(Suture of heart), Rev. de Chir., 1907.

Borchardt.—(Suture of heart), Zeit. f. Chir., No. 28, 1906.

Green.—(Massage of heart), Lancet, Dec., 1906.

Muller.—(Massage of heart), Wiener Klin. Rundschau.

Conkling.—(Massage of heart), N. Y. Med. Jour.,

Conkling.—(Pneumothorax). Zeit. f. Chir., No. 8, 1906.

Vautrin.—(Wound of Thoracic duct). Rev. de Chir., No. 25.

WM. B. COLEY. "Sarcoma of the Long Bones." *Annals of Surgery*, March, 1907.

Based on a study of 71 cases of sarcoma which came under his personal observation, Coley makes a plea for a method of treatment, which, in his opinion, holds out more hope than the present operative one. In this series of 71, 34 were periosteal and 22 central in origin; 15 were uncertain. The femur was affected 36 times; the tibia 13; humerus, 13; radius, 3; ulna, 2; fibula, 2; metacarpal, 1; metatarsal, 1. Twenty cases were treated by amputation, 16 by disarticulation—other methods were practiced in 6 cases, and no operation performed in 29. This distribution and these methods correspond closely with figures from other clinics save that, in dealing with the myelogenous type, the German school following the example of the late von Mikulicz, have practiced resection of these bones with equally good results. The prognosis is of the worst. O. Kocher collected from the literature up to 1905 but 57 cases which had showed no recurrence within three years or longer. Of these 30 were of the myelogenous type, 15 of the periosteal and the remainder uncertain. Butlin in 114 cases of sarcoma of the femur found 68 periosteal in origin; of these but one lived beyond three years, and 46 myelogenous, of whom 5 were alive three years after removal, figures which serve to show, not only the malignancy of the disease, but the extraordinary malignancy of the periosteal type. To quote Butlin. "We cannot but form the opinion that the disease is horribly and rapidly fatal and the prospects of complete cure singularly small." By use of his toxins of *B. prodigiosus* and *S. crysipelatis*, with or without operative measures, Coley is able to report 10 cases well three years and after. This would give a recovery of about 14 per cent., which is somewhat better than the 9 per cent. of von Bergmann's, and 13 per cent. of König's series reported by Nassé and Rheinhardt. So struck is Coley with the inefficiency of operative interference, and so confident is he that his toxins can render useful service that he does not hesitate to advise a trial of the toxins in these bone tumours for three or four weeks. Should no decrease in size or improvement be perceptible by the end of this period, operate. The loss of time is not sufficient to do much harm; on the contrary, he is now able to report 12 cases which have been saved operation by this method.

HOFFA. "Results of Tendon Transplantation." *v. Langenbeck's Archiv. Bd. LXXXI. Hft., I.*

Hoffa, from 200 cases of tendon transplantation, has been able to follow 173 to a point where results warrant publication. Without going into detail, suffice it to give his most pronounced conclusions.

On the whole the results following this work in the paralysis and paresis following anterior poliomyelitis of infants have not been good, due, says Hoffa, to not treating these cases first and getting rid of contraction and other deformities before attempting the tendon suture. Further, one must pick out his muscles with care; the functional capacity is not always rendered sufficiently clear by the electric reaction, we must also depend on the appearance of the muscle at the time of operation—the normal dark red, the paralyzed white, the parietic pinkish. Asepsis and proper arrest of hæmorrhage are, of course, a necessity. Don't over shorten; don't put the plaster on too tight; don't split the tendons too finely, and follow your operative results with massage and electricity are some of the points brought forward. In the spastic diplegia of infants over shortening is very probable, the conversion of a pes equinus to the still worse condition of pes calcaneus has occurred again and again. In progressive muscular atrophy surgical interference is justifiable, inasmuch as the disease is but slowly progressive, and he has seen many cases of temporary improvement after operation.

A detail of results in pes equinus, club-foot, flat foot, pes calcaneus, quadriceps and deltoid paralysis is presented.

A. S. BARKER, F.R.C.S., of University College Hospital, London. "A Report on Clinical Experience with Spinal Analgesia."

"There seems but little doubt it has rendered possible life-saving operations, which would have been almost certainly fatal under general anæsthesia." Such, briefly expressed, is Barker's conclusion, though he refrains from any more definite expression as to the future of this form of anæsthesia. Barker used stovaine throughout, at first in sodium chloride solution (Chaput's), later Bier's, and finally a glucose solution of his own devising. In 11 out of the 100 he failed, but it is noteworthy that these all occurred in the first 50 cases and are, thinks Barker, due, to not introducing the solution into the canal, at least in toto. Headache, vomiting, were occasionally noticed, never severe, and it was remarkable that when patients had had experience of general anæsthesia and lumbar puncture they, with one partial exception, preferred the latter. The injection was made in the ordinary way, in 3rd or 4th lumbar space—on the average 5 c.c. of the solution were injected; in 5 to 10 minutes analgesia extending as a rule as high as ensiform cartilage occurred and lasted from 23 minutes to 2 hours, the average being 50-70 minutes. The first symptom, as a rule, was formication in feet, followed by loss of sensation in the perineum gradually extending to legs, thighs and abdomen. All operations were at a lower

level than umbilicus, but involved many abdominal sections, no mortality as a result of the procedure occurred. The writer, whose opinion on any question of local anaesthesia must be received with respect, calls attention to the fact that stovaine has a marked hæmolytic effect, in spite of being made up in what are apparently isotonic solutions. He himself prefers an isotonic glucose solution with a high specific gravity. By means of this high specific gravity he considers that he has more control over the solution once inside the spinal canal, *e.g.*, by tilting up the pelvis this fluid will flow towards the head, reaching the high dorsal nerves, and, consequently, a high level analgesia. His experiments at once ingenious and simple, bear him out. The article is one of the best in English on this subject, which at present is such a live issue on the continent, that we have yet met with.

GEO. WALKER, Associate in Surgery, Johns Hopkins Hospital. "Tuberculosis of the Bladder." *Annals of Surgery*, February, March and April, 1907.

Walker's earlier article on tuberculosis of the kidney is ably amplified by the present study of the same disease in its relation to the urinary bladder. The paper which is a long one, extending over three numbers of the journal in which it appears is based on a study of 413 cases collected from the literature; 34 cases from Dr. Halstead's wards and practice; material from the pathological laboratories of many clinics and on inoculation experiments by the author on the Guinea pig and rabbit.

Beginning with the history which commences with the studies of Ambroise Paré, it is interesting to note that as early as 1859 Wilks, and later, Gebbard, concluded that primary tuberculosis of the bladder did not exist, a view which the present article does much to substantiate; thus, out of 2,390 autopsies at the Johns Hopkins, 710 cases of tuberculosis occurred, 160 of which affected the genito-urinary organs: of these 160 the bladder was affected 22 times, but always secondary to disease elsewhere, generally the kidneys. Even more striking are the figures of Saxtorph, who, in 10,016 autopsies, where the genito-urinary system was affected 547 times, found the bladder affected in 53 cases in only one of which could he, with reasonable certainty, consider the disease primary.

In reference to the association of vesical tuberculosis with the remainder of the genito-urinary tract, the following figures are of interest: Out of 411 cases of genito-urinary tuberculosis 266 were secondary to disease elsewhere, generally the lungs, and 145 primary. (It is but

right to remark here that these figures are open to question, as are all tubercular records, in view of more recent and more careful work in the search for the primary focus). Of these 145 cases, primary disease of the kidney occurred 84 times; of the epididymis, 80; of the prostate, 6; of the tubes, 6; of the seminal vesicles, 2, and of the uterus, once.

Primary tuberculosis of the bladder is practically unknown pathologically, though frequently diagnosed clinically. This is substantiated by experimental work of the author and by Roosing, Hansen, Baumgarten, etc., who without primary injury to the bladder, were unable to set up a tubercular process.

Without going into the minutiae of pathological histology, the disease starts as minute tubercles of the mucosa, generally extending to severe infiltration, ulceration and widespread destruction of the whole bladder wall. The infection is always at an earlier or later stage complicated by a secondary infection, which, in the author's opinion, is due in the great majority of cases to the use of the catheter, it being almost impossible to avoid a contamination of these bladders. Among the secondary organisms found, streptococcus, staphylococcus, *B. coli.*, the gonococcus and *B. proteus vulgaris* are the most common. All aggravate the condition, with the possible exception of the last named, which, in some instances at least, seems to ameliorate the condition. With regard to the situation, the trigone and base are most commonly affected, thus, out of 83 cases, the trigone, the ureteral openings, the base and posterior wall were the seat of the lesion in 67 instances, while the remaining 16 were found to affect the neck, anterior wall and vertex (not ureteral openings).

Infection is possible, by the blood and lymph, though where miliary tubercles occur it is impossible to say that the bacilli have not descended the ureter and come to rest in the bladder, indeed, as the author points out it is not necessary that the kidney be affected in these cases, as there are now several instances on record where a healthy kidney has secreted tubercle bacilli (apparently from a tubercular lung) and showed post mortem no evidence of disease. The second route of infection is thus a descending infection from the kidney, and, judging from the author's figures, we are inclined to believe this the commonest method. Thirdly, infection is possible and does not occur secondary to disease of prostate, epididymis and seminal vesicles.

Out of 438 cases, 285 were males and 153 females. The disease was present in one case of 2 years of age, in another of 97 years; it was commonest between 20 and 30.

From a clinical standpoint the disease is an unsatisfactory one—the urine may be acid or alkaline, depending, as a rule, on the secondary infection. The presence of blood is of importance, and hæmaturia is often the first sign—in one case of Caspar's this existed for five years without other symptoms. Absolute diagnosis can only be made by the use of the cystoscope, substantiated by finding the bacilli in the urine, a fact which the author assures us is possible in every case. Fever is a late symptom. The disease is a chronic one—some cases give a history of cystitis for 5 to 10 years. When first seen, on the average, the disease was present two years before the patients presented themselves, and the average duration after their first visit was three years. The prognosis is thus extremely bad, though undoubted cases of recovery have occurred. Drugs and local applications are useless—operative measures are limited to a removal of the primary focus, *e.g.*, kidney or testicle, which in many cases has favourable influence, and to palliative measures such as drainage. The use of tuberculin is to be decried, except when used after the method of Wright. Hygienic measures, fresh air, rest, etc., offer the best prospects.

PROF. M. JORDAN, of Heidelberg. "The Internal Treatment of Appendicitis and the Indications for Surgical Interference." *Deutsche Med. Woch.*, March 21st, 1907.

In an early number of the *Deutsche Med. Wochenschrift* of this year, Prof. Pfister, of Heidelberg, advised a more extensive trial of the expectant treatment in appendicitis, bringing forward certain 70 cases from his clinic to support his view. This, in spite of the steady trend of German surgical opinion towards early operation, which has filled the literature since 1899. Jordan is one of the first to attack a heresy which was orthodox ten years ago.

Probably 90 per cent. of cases of appendicitis would get well without operation, and this quite apart from the use of ice and opium as advocated, but at least 40 per cent. to 80 per cent., or even 90 per cent. of the cases will develop subsequent attacks or will continue to suffer from peritoneal and intestinal pain dependent on the appendix. Internal medicine cannot cure appendicitis, it can only withhold baneful influences by rest, abstinence from food—and denying purgatives—possibly by use of opium. How then can we save this 10 per cent. and better the condition of the others?

Could we diagnose accurately the condition of the appendix, we would be in a position to know where to operate and when to wait. This accurate knowledge is, except within wide limits, impossible, as any one who has operated much will know.

Should we, on the other hand, operate in every case as soon as diagnosed, we would undoubtedly lower the mortality possible to 0 per cent. This, for various tabulated reasons, is also impossible. Our course must therefore be to individualize. As is common with the German school, he divides appendicitis into acute and chronic, and the former into the early, intermediate and late stages.

In the acute stage the surgeon's position should be a waiting one—knife in hand. Paying due regard to patient's general condition in relation to local signs, especially resistance of muscles, pulse (especially with low temperature), pain, vomiting, temperature, more especially with a chill or when sub-normal, tenderness, etc., he would watch for improvement. In the mild attacks this should occur within twenty-four hours; in the severe, symptoms and signs are worse inside of thirty-six hours. As everything depends on recognition of these facts, *don't give opium.*

In the acute stage the surgeon's position should be a waiting one—between the third and sixth day, either a general peritonitis or abscess is likely present and here, too, we must treat each case on its merits. Where the condition is apparently hopeless he would abstain from operation, and he has seen some cases get better. Where the patient's condition is good he would interfere. In the late stage, cases seven days old or older, little or nothing can be done.

He concludes then: (a) In even the mildest cases think of operation as a possibility; (b) the practitioner should therefore pay special attention to the severity of the case which (c) depends on the most careful observation of symptoms, therefore, don't use opium; (d) mild cases under constant observation can be allowed to go on; (e) but cases which are not improved by second day should be operated upon; (f) treatment by medicine is too great a hazard; (g) an interval operation is indicated, after one severe attack; after two or three mild attacks; after one mild attack depending on patient's circumstances; when chronic trouble persists.

Society Proceedings.

MONTREAL MEDICO-CHIRURGICAL SOCIETY.

The fifteenth annual meeting of the Society was held on Friday evening, 3rd May, 1907, Dr. F. G. Finley, President, in the Chair.

CEREBRAL HÆMORRHAGE SIMULATING MENINGITIS.

W. A. MOLSON, M.D., and A. H. GORDON, M.D.—Dr. Gordon read the report of this case, which appears on page 416 of this number of the JOURNAL.

F. G. FINLEY, M.D.—The condition of cerebral aneurysm is so rare that it is not surprising that this condition was unrecognized during life. On looking back there are several points which might have led to a correct diagnosis had due weight been attached to them. The recurring apoplectic attacks with blood in the cerebro-spinal fluid were quite characteristic of hæmorrhage, and with double optic neuritis some form of tumour was the most probable explanation. The marked grade of arterio-sclerosis occurring in a negro was suggestive of aneurysm, as it is well recognized that this malady is more frequently found in the coloured than in the white race. I would like to ask if there was a history of syphilis, which is such a frequent precursor of aneurysm.

A. H. GORDON, M.D.—I may say that the specific disease was searched for while the patient was alive, but no scar in the usual situation was discovered; however, at autopsy the report of the pathologist shows that there was a suspicion of a scar behind the corona.

GENERAL PERITONITIS.

E. W. ARCHIBALD, M.D., read the paper of the evening, taking up, first, the definition of the term peritonitis; second, the bacteriology and its relation to prognosis; third, treatment, especially the moot points of lavage and drainage, and fourth, the results.

DR. LAPHORN SMITH.—I was very much interested in the part of the paper relating to the Fowler or semi-erect posture, after abdominal sections for appendicitis and bad pus tube cases, where there is extensive peritonitis of the lower part of the abdominal cavity; it prevents the infection from being spread to the upper part of the abdominal cavity where it is much more dangerous. My experience with the Fowler position has led me to believe that its introduction marks an epoch in the reduction of mortality, just as the Trendelenburg posture, during the operation, has done. In one of my cases I am sure the patient would have died without it, as there had been unavoidable and extensive injury to the intestine which was so softened by infiltration that it would hardly hold the stitches. I was almost sure that there would be a faecal fistula, as well as a great deal of oozing of blood and serum, so I introduced a rubber tube as large as my thumb, with many holes along its length, extending from the lower end of the incision, down to Douglas' cul de sac and out of the vagina. As the patient was semi-erect everything drained away, including fæces, for several days, with the result that she had a remarkable convalescence almost free from temperature, and got up better than many a mild case. Of course it does away with salt solution in the abdomen, but I am coming to the

conclusion that this is not often necessary, and that the dryer you leave the peritoneal cavity the better. I have created an axiom that "It is unlucky to see the intestines at all during a laparotomy, and still more, to handle or touch them," and if the nurses have had the patient in hospital a couple of days, the bowels can be so emptied that they disappear out of sight the moment the peritoneum is incised. Although I have no experience with pelvic drainage in men, I think it would be worth the general surgeon's while to employ this method by passing the tube out through the anus or by piercing the perineum.

F. J. SHEPHERD, M.D.—With regard to the term "general peritonitis," I would object to that and prefer to call it "progressive peritonitis," for one does not know how extensive the condition is; as for rigidity being a sign I do not believe it can be depended upon to diagnose general peritonitis. I do not think it is advisable to hunt about to see how much peritonitis there is, but rather to treat the condition as one that may progress. The dose of the poison, the extent of the peritonitis and the virulence of the infection as well as the personal equation are all important bearings in many of these cases. I have operated on cases in the interval where the patient has died of peritonitis with septic infection chiefly because those patients had no resisting power. This is where Wright's method comes into vogue: it tests the resistance of the patient to streptococcus, and if low, the toxine may be injected to bring it up to the required standard. I have given up drainage in general peritonitis where there is no local infection such as gangrene or local abscess; where one can turn in the stump of the appendix and everything is clean, then, as a rule, I do not drain. Where there is a lot of gangrenous tissue one must drain or have an abscess to open later.

F. M. FRY, M.D.—I was hoping Dr. Archibald would discuss purulent peritonitis without visible perforation. It has been accepted, I believe, that in appendicitis germs pass through the intestinal wall to the peritoneal cavity without there being any macroscopic perforation. I have seen infants at the Foundling Hospital with typical signs of peritonitis following chronic intestinal catarrh, and these cases at autopsy show universal purulent peritonitis without visible perforation. While one cannot exclude infection through the general circulation, yet the passage of germs through the diseased bowel must be thought of.

F. R. ENGLAND, M.D.—A paper read by Mr. Bond at the meeting of the British Medical Association in Toronto, on this same subject brought out some very interesting facts. And certainly it does seem that the views of surgeons generally have lately undergone great change

regarding the treatment of so-called general septic peritonitis. In the discussion which followed Mr. Bond's paper the statement was made by Dr. J. B. Murphy, that until five years ago statistics (Dudgeon & Sargeant) showed a mortality of from 83 to 85 per cent. in cases of general septic peritonitis, but that during the past three years, since adopting a change in the method of treatment, his mortality, in a series of thirty-five cases of the same kind, had been only three per cent. Mr. Bond in his paper referred to the upper dome of the abdomen or sub-diaphragmatic area as being the part of the peritoneal cavity where absorption of bacterial poisons took place most rapidly, and that when this area became infected the case was most likely to prove fatal. Mr. Bond was a strong advocate of the Fowler position, maintaining that the toxins gravitated to the lowest part of the abdominal cavity where absorption occurred more slowly than it did in the upper zone, allowing time for the patient's resistance to overcome the poisonous toxins as they were absorbed.

Since Mr. Bond's paper I have had an opportunity of treating three cases of diffused or so-called general peritonitis. The treatment followed consisted of open irrigation, pelvic drainage for two or three days, Fowler's position and the slow introduction of normal saline solution into the rectum. All three cases made rapid and perfect recoveries, and this notwithstanding the fact that in two of the cases the bacteriological report showed streptococci in pure culture.

Murphy holds that the variety of organism makes very little difference in influencing the prognosis and that any organism may be virulent at times. He places more importance upon the personal factor of the resistance of the patient and the evidences of toxicity present.

GEO. FISK, M.D.—In connection with the Fowler position I may say that it certainly does aid the circulation; we all know that in depressing heart conditions with hypostatic congestion it helps to have the patient frequently change his position and to assume the semi-upright attitude. With regard to drainage I must say that I have used it in all bad cases of progressive or general peritonitis, and as my results have been so far very good I have hesitated to close in these cases without drainage. Irrigation too I have used.

E. W. ARCHIBALD, M.D.—With regard to the diagnosis of general peritonitis I can hardly agree with Dr. Garrow that the clinical findings of so-called general peritonitis are sufficient in all cases to give an absolute anatomico-pathological diagnosis. While the experienced clinician will not very often make a mistake in this direction, I am sure that he is sometimes exposed to such errors where, as with Murphy,

one makes only a right-sided incision and a small one at that, it is practically impossible to see the left side or to determine whether pus is present there or not. And it sometimes happens when one makes two lateral incisions, that when there are clinical signs of pus on both sides, no pus is found on the left; *per contra*, clinical signs may be wanting when there is pus. Hitherto, upon a diagnosis of widespread bilateral peritonitis I have made two lateral incisions, and, if necessary, a third one above the umbilicus, so as to wash thoroughly from above downwards. As regards the cases of peritonitis without discoverable lesion I have had no experience with this class; I think we are reduced to mere theory in these cases; they are either hæmatogenous, or are due to an insignificant trauma. As to the Fowler position after operation, to a modified degree, yet not so much to favour drainage as to give comfort to the patient. It certainly assists circulation and respiration by relieving the diaphragm, and contributes just so much to his well-being and to his recovery; but for drainage I do not think it is of very material assistance. With regard to the Fowler position I would point out that in experiments the upward current of saline and of particles of carmine may be slowed, but it still goes on. There is a current in the upper direction against gravity. Experimentally, streptococci form an exception to the general rule with regard to lavage, in this infection thorough and early lavage apparently does good, but not, if we are to believe the laboratory men, with the bacillus coli. I would say, however, that one must use caution in making a direct application of laboratory results to the human. The B. coli infection in animals, as experimentally produced, is nearly always by a massive dose, with the production of acute toxæmia, without the slow later changes, which one sees in man, due to peritoneal reaction, exudate, pus, abscesses, and adhesions. The effect of lavage in such acute toxæmias may be very different from that seen in the slower process in man.

ELECTRICAL EXAMINATION AND TREATMENT OF OPTIC NEURITIS AND ATROPHY.

D. A. SHIRRES, M.D., read this paper.

G. W. MATHEWSON, M.D.—These cases of optic atrophy have always formed a sad chapter in ocular therapeutics. The commonest mode of treatment has been the hypodermic injection of strychnine, which generally produces temporary improvement. Of late years Longworth and Würdeman have each published a series of cases treated by electricity, in some of which improvement was marked. In one of Longworth's cases vision improved from 6-36ths to 6-12ths. The most important point is whether such improvement is permanent.

C. K. RUSSEL, M.D.—These are extremely interesting cases, but how such improvement in vision occurred is hard to understand. In peripheral nerve paralysis it is very doubtful if the galvanic current acts on the nerve itself. It is much more likely that it acts only on the muscles, keeping them in good condition until the nerve regenerates. Here in the optic nerve we are not dealing with a peripheral nerve, but with a prolongation of the brain substance and we know that regeneration of brain substance, once destroyed, does not occur. Unless the actual acuity of vision was recorded both before and after treatment these cases are of little value. In any case one must allow for that functional element which is so often associated with chronic nervous disorders and which would allow a certain improvement under treatment.

GEO. FISK, M.D.—I should like to learn a little more of the details of the technique in giving the electricity. This report has been of much interest to me; I am a great believer in electricity and feel that we will learn more about it by being optimistic and persevering in the treatment of obstinate cases.

W. Gilman Thompson records a series of experiments to ascertain whether the local application of heat by poultices and cold by ice bags has any appreciable effect on the deep internal temperature of the body. He concludes that the topical application of thermotherapy is of little value in controlling deep-seated visceral hæmorrhages, congestions or inflammations. The ordinary means of applying heat and cold do not affect the temperature of structures lying beneath the skin to any appreciable extent, so long as the peripheral circulation remains active. But thermotherapy applied to the peripheral structures of the body is of very great value, especially when applied with pressure, as in alternating hot and cold douches. The combination with mechanical shock is of great value in stimulation of peripheral nerves.—*Medical Record*, April 13, 1907.