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Original Articles

APPENDICEAL DISEASES.*

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It seemed to me well to use the term appendiceal disease rather than appendicitis, for in many cases, indeed in the majority of cases, there is not enough inflammatory action present to justify the use of the termination -itis. I propose to consider mainly those cases where either the inflammatory action is slight or where only the results of an acute attack remain, and in which symptoms are often misleading and diagnosis difficult. I presume it would be unnecessary at this late day to say anything regarding an acute attack with increase of temperature, pain in the abdomen and tenderness in the right inguinal region, for here the diagnosis is so plain and self-evident that with ordinary care a mistake is almost impossible. It might not be time wasted to consider briefly what is known as the McBurney point, for many look upon it as having great diagnostic value. To my mind there is nothing more misleading, and nothing which has led to more mistakes in diagnosing appendiceal disease than the so-called McBurney point. It is true that in a large number of cases there is tenderness at this point, but the absence of tenderness is no proof that the appendix is not diseased. The explanation is very simple. The appendix is a movable organ, and when inflamed pressure upon it causes pain, if it lies at the McBurney point the

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tenderness is there, but if not the tenderness is not there. Instead of saying that tenderness at a certain point is diagnostic of appendicitis it would be better to say that wherever the diseased appendix may be over that point there will usually be tenderness. The point of greatest tenderness will generally indicate the situation of the appendix, but as the McBurney point is fixed, and the appendix is not, the former is no guide as to the position, nor indicator as to the condition of the latter. Whilst speaking of acute appendicitis the treatment might be mentioned, for I believe there are still some who believe in temporizing. The origin of all the symptoms, the cause of the danger, is the diseased appendix, and the true principle is to remove the cause and remove it at once. Except rest there is no other treatment. Morphine relieves the suffering, but does not affect the condition; purgatives empty the bowels, but do nothing more; poultices may soothe the patient and possibly satisfy the friends that everything is being done while the golden opportunity is passing, and the patient dies before he is dangerous enough to be operated on. It is true many recover from an attack of appendicitis, but what about those who don't? Are we to let some die and leave the rest to the danger of death, because a proportion may recover, even if nothing is done? The man who does not advise immediate operation in appendicitis is assuming a serious responsibility, and exposing his patient to unnecessary risk, especially when it is remembered that in the hands of skilled operators the death rate of all cases operated on within the first twenty-four or forty-eight hours is practically nothing, if it is the first attack. Coming to appendiceal disease, in which there are no symptoms of acute disease, and where, indeed, the trouble is chronic, but none the less dangerous on that account, it might be well to go briefly over a few out of many cases which have come under my own observation.

CASE I.—A woman, aged 36, complaining of attacks of pain in the lower part of the abdomen, in the region of the uterus, in fact. The pain came on about once a week, but sometimes the interval was longer. It gradually increased in intensity until it was difficult to bear, when it disappeared almost suddenly, and the patient was fairly well until the next attack. Amongst others she consulted a medical man, who has a more than local reputation as a surgeon, his diagnosis was ovarian disease, and he removed both ovaries, but the symptoms persisted, and finally she came under my care. There was no tenderness at the McBurney point, but low down to the right of the uterus there was tenderness. My opinion was that it arose from a diseased appendix, and an operation was advised, to which, after considerable hesita-

tion, she consented. On cutting down, the apex of the appendix was found adherent to the fundus uteri, and it was filled with pus. Close to the entrance to the cecum it was sharply bent upon itself, so that the pus could not escape, but apparently as it got fuller and the tension increased, the organ straightened and emptied itself, and this process was repeated over and over.

CASE 2.—A woman had for eight years suffered from attacks of severe pain low down in the abdomen. Each attack laid her up for one or two weeks, but there was no regularity as to their coming on, sometimes the interval would only be a month, and then a couple of months would elapse between attacks. It was attributed to some uterine disease, but what the exact diagnosis was I did not learn. She had, however, been treated for it in a hospital for many months without being cured. On making an examination there appeared to be nothing wrong, except a tender point about an inch and a half above the centre of Poupart's ligament. So far as she knew she never had an attack of appendicitis, but she had been treated for inflammation of the bowels eight years before. With these facts before me, I diagnosed appendiceal disease, and advised operation. On cutting down, the appendix was found at the point of superficial tenderness. It was held down by adhesions, and was filled with pus. Its removal was followed by an uneventful, but complete recovery, and there has been no return of the uterine trouble.

CASE 3.—This patient was a young man, who had had two or three so-called bilious attacks, which while not actually laying him up interfered greatly with his comfort. As I am always suspicious of indefinite terms, such as biliousness, which doesn't mean anything in particular, I made a careful examination and found on making firm pressure tenderness over a point about two inches internal to the anterior superior spinous process of the ileum. On cutting down, adhesions of the appendix and bowels were found and separated, the appendix removed and rapid recovery followed. The biliousness has not returned.

CASE 4.—A boy, aged 12 years, had taken a sudden and severe pain in his abdomen about six o'clock in the evening, and at ten I saw him. His temperature was then 103, and there was marked tenderness in the right iliac region, but it was not localized. His parents told me he had been laid up a year before with appendicitis, but that his physician did not believe in operating, and had assured them that if he was kept from eating fruits with small seeds, and had his bowels kept rather loose there would be no further trouble. Operation was advised, and he was brought to the Royal Alexandra Hospital, Fergus, and the appendix re-

moved at nine o'clock on the following morning. The organ was found firmly adherent and the peritoneum in the neighborhood intensely congested. Prompt recovery followed and the boy has since been in perfect health.

CASE 5.—A young lady, daughter of a physician, was taken with sudden and severe pain referred to the epigastrium, which was extremely sensitive to pressure. She had been from home for several months previously, and had been laid up with the same trouble twice in six months, but the diagnosis had been acute indigestion due to some errors of diet. The fact that one attack came on some hours after eating ice-cream and cake seemed to support that view. When I saw her about twenty-four hours after her last attack began, her whole abdomen was so tender she could not be examined, and in spite of taking a grain of opium every hour the suffering was intense but she still referred to the stomach as the place of greatest pain. The possibility of perforating ulcer of the stomach was discussed but on account of the previous attacks it was decided to cut down over the usual site of the appendix. The intestines were found glued together and the appendix intensely inflamed, but as the adhesions were by no means firm there was no difficulty in completing the operation and the immediate relief of the symptoms was remarkable. There was very little suffering afterward and recovery was uneventful.

CASE 6.—This is typical of a very common variety of cases depending upon diseased appendices. Patient had never been actually laid up, but had suffered from what was called indigestion and had cramps in the abdomen. The treatment was usually a tonic with a couple of doses of a purgative and the symptoms were relieved in three or four days only to return at a greater or lesser interval. Pressure in the right inguinal region revealed tenderness, but it was by no means marked. It was just one of the cases where it was difficult to be certain as to the diagnosis, but remembering that repeated attacks of indigestion, in spite of the utmost care in diet, in a person, who up to a couple of years before had never had any such trouble, must arise from some cause other than undigested food, and that ill-defined pains and cramps with slight tenderness must have a cause, and that in all probability the cause was situated at the tender point, a diagnosis of appendiceal disease was made, and an operation done. The appendix was found quite firmly adherent to the cecum, and bent at an acute angle. Its removal was followed by complete recovery. A case of this kind is most instructive, for the symptoms are comparatively so mild the cause may be overlooked, in fact, I am certain that until recent years I overlooked many of them. It

might be said that in such cases an operation was unnecessary, and that, indeed, was at one time my own opinion, but when studying cases of peritonitis twenty-five or thirty years ago I noticed that often there was a history of indigestion and cramps, and it gradually became apparent that there must be a common cause for the chronic trouble, and the acute attack. When it was found that peritonitis of the so-called idiopathic variety arose from disease of the appendix it was a simple matter to fix the origin of the preliminary disturbance, and when the terrible danger of peritonitis is considered it is surely indefensible to leave any person exposed to it after nature has hung out the warning signal, if only we interpret that signal aright.

CASE 7.—This case illustrates the ever-present danger of a diseased appendix, the mildness that may characterize the symptoms and the awful suddenness of the final attack. The patient, a lady of twenty-seven years, had for some months been troubled with her stomach in a more or less indefinite way, and had also some pains of a cramp-like nature in her abdomen, which she attributed to biliousness, and for which she took purgatives, but had never consulted a physician. About one o'clock in the morning she was aroused from sleep by a sudden violent pain in the lower part of the abdomen; it was so severe she was unable to go to a physician, although the distance was only about three hundred yards, and as she was alone in the house there was no one to send; she managed to cross the street and awake a neighbor, who helped her home and brought her physician, who diagnosed acute peritonitis. At four o'clock in the evening of the following day I saw her. Her pulse was weak and almost uncountable; skin dusky; abdomen tympanitic and exquisitely tender; her whole condition, in fact, one of a most hopeless character. The possibility of perforating ulcer of the stomach was considered, but on account of the pain having begun at the lower part of the abdomen it was thought more likely that rupture of an abscess, probably appendiceal, had taken place. On making an opening the whole lower part of the abdominal cavity was found bathed with bad smelling pus, and beside the cecum a ruptured pus cavity. She died within twenty-four hours. Had an operation been done immediately after the pain came on, and had the cavity been thoroughly washed out and drained, it might be that recovery would have taken place, but how much better her chance would have been had she seen a physician before the rupture, or better still, before pus had formed, and the condition being diagnosed, an immediate operation had been undertaken. It is surely true that in so far as the danger

of explosion is concerned a stick of dynamite in the abdomen would not be more dangerous than a diseased appendix, for it might be possible to avoid exploding the former, but no precaution or foresight could insure safety from the latter. I might go on quoting cases, but the above are to a certain extent typical of many that are met with, and to continue would be to some extent reiteration. My professional life extends back to what might be called the pre-appendiceal period, when people died in a regular orthodox way of peritonitis, and no one was supposed to be to blame. The fact that the appendix was the point where the trouble originated in almost all the cases, was never suspected, in fact, no mention was made of diseases of this organ in any of the text-books even at the time of my first operation in 1883, nor am I aware that the operation had been done by any one else in Canada at that time, if indeed it had been done anywhere. Before that date I had many deaths from so-called idiopathic peritonitis, but I believe I have never had one since in my own practice. I well remember how we used to go on with our treatment and fondly suppose we were doing something—if the patient got well we did it, if he died Providence so ordered it. In either event we were not to blame.

Slowly and laboriously the advance was made. The first limping step was to operate when pus had formed; that was, wait until great danger had been survived and much suffering undergone and then open an abscess which resulted from our own delay. Next advance was to operate after the attack was over if, perchance pus had not formed and this indeed was an approach to rational treatment; it was a recognition of the great principle that the only treatment worthy of the name was removal of the cause. Finally reason and science triumphed, as they always will triumph over empiricism and ignorance, until to-day there is no middle ground or debatable question in these cases. The moment the diagnosis is made the time for operation has come. The cause being known must be removed. This is a rule to which there is no exception, unless it be that there is something in the patient's condition which forbids operation. Reverting again to the danger of the operation, it might be permitted me to speak from my own experience, and to give my own results. In my twenty years of operative work in connection with appendiceal disease, I have not had one patient die as a result of operation, for the removal of the appendix. It is true I have had deaths where an operation was done after general peritoneal infection had taken place, but these prove the necessity for early operation. Had they been operated on before pus formation the probability is none would

have died, or at any rate very few. Within the last three years I have had more than a hundred cases where pus had not formed, and every one recovered, and it seems to me most likely that some of them would have died had no operation been done; in fact I am not in the slightest doubt about it. If only one life was saved would not even that life have justified all, to say nothing of the suffering and anxiety relieved and prevented.

Regarding the operation itself it is well to understand that he who undertakes it should be prepared for anything; the case with mild symptoms may be most difficult and trying. In this, as in all operations, it is of great advantage to have assistants who are familiar with the methods of the operator, and who are accustomed to abdominal surgery, and amongst these none is more important than a nurse specially trained for surgical work. Rapid operations will, I am persuaded, show better results than slow ones, for every minute the patient is kept under the anesthetic adds to the shock, and the longer the abdomen is open the greater the danger of its becoming infected. In an uncomplicated case the operation ought to be completed in fifteen or twenty minutes, and with everything favorable it can be done in eight or ten or even less.

In putting together the abdominal wound the different layers should be stitched separately, peritoneum to peritoneum, muscle to muscle, fascia to fascia, integument to integument, but especial care should be taken in bringing the fascial edges together, for this is the only way of avoiding a hernia. The through-and-through method of stitching wounds of the abdominal wall is as bad in practice as it is wrong in principle. A hernia after an appendectomy is not creditable to the operator, and is always a result of faulty technique. The bringing together of the fascia cannot be too strongly insisted on; if it is united there will be no hernia, otherwise there will be one.

Sometimes when the appendix is exposed nothing very seriously wrong is visible, no adhesions, and not much sign of inflammation. The organ feels firmer than normal, and in such cases its walls are thickened as a result of the diseased process going on in the mucous lining, for it is in the mucous membrane the disease begins, and it is only when the peritoneal coat is involved or perforation occurs that there is severe pain. If it were possible to make the diagnosis before the peritoneal coat becomes involved, that is when the operation ought to be done. If the case is diagnosed early enough and operated on, there will be no pus and no adhesions. Every case of indigestion should be thoroughly investigated, for very often the cause is a diseased appendix, in fact

a large proportion of such cases are undoubtedly appendiceal in their origin. When the profession becomes thoroughly awake to the fact that there are no functional diseases, that every disease has a definite cause, and that the cause ought to be discovered and removed, we shall have few causes of pus formation around the appendix, and a vast number of miserable dyseptics will be restored to health.

**A CASE OF ERYSIPELAS MIGRANS UNIVERSALIS IN
AN INFANT TEN WEEKS OF AGE.—
WITH RECOVERY.***

BY W. H. PEPLER, M.D., L.R.C.P. (LOND.), TORONTO.

Baby H., female, aged ten weeks, whose mother is delicate, having had two attacks of appendicitis within the year, the last one since the birth of my little patient; both attacks having subsided without operation. Patient wa-, full term, small, but well developed, birth natural, mother's convalescence normal; cord became detached naturally on sixth day. Infant has been suckled from birth, which was not stopped during mother's attack of appendicitis; seemed to grow and thrive up to time of present illness, when she developed a muco-purulent discharge from the right ear, which the mother said was preceded by a sore mouth. There were no symptoms nor signs pointing to the ear trouble prior to the appearance of the discharge, which was quite free for two days, when it suddenly stopped, and the same day the mother noticed a small red spot on the cheek immediately in front of the ear that had been affected; this spot rapidly became larger, spreading across the face, down into neck, shoulders and back, then the abdomen and genitals; the limbs to the extremity of the fingers and toes were the last to be attacked, even the palms of the hands and soles of the feet not escaping.

The disease seemed to spread by contiguous growth from a local infection in the neighborhood of the right ear. No wound of any kind was noticed in this location. The period occupied by the universal distribution of the disease was sixteen days. The color varied; a bright scarlet corresponded to the freshly invaded

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areas; a dull rose where the disease had recently been, and a dark bluish pigmented appearance was particular noticed on the back after the acute process had subsided some time. The inflamed areas were tense, hot and glistening, slightly elevated, with marked induration of cutaneous and subcutaneous cellular tissues.

The edema was more or less plastic, especially marked in the hands, feet and genitals. Small vesicles formed in patches, but no suppurations. Mucous membrane of fauces looked inflamed. The noticeable symptoms during the progress of the infection were considerable prostration and tenderness, infant never moved unless disturbed, and then screamed with pain; the cry being quite hoarse; a steady vacant stare, with occasional convulsive twitching. Temperature from 100 to 105 degrees, appearing to rapidly rise as new territories were invaded by the poison, and dropping in the interval. The pulse remained fairly good throughout. The infant nursed regularly and well, no vomiting nor diarrhea. There was rapid loss of flesh. The muco-pus from the ear was implanted upon Loeffler's blood serum and showed a luxuriant growth of mixed colonies, some colorless, others orange-yellow; under the microscope the organisms proved to be the staphylococcus pyogenes aureus and albus; serum from the lymph vessels of the skin in the erysipelas infected areas failed to produce any growth.

The infant made a rapid recovery from the time of the last appearance of the erysipelas, six weeks ago, and is now a plump healthy baby.

The treatment consisted of strychnia sulph., gr. 1-600th every four hours; whiskey, one-half to one ounce every twenty-four hours, given in small and well-diluted doses—these were administered throughout the course of the disease— $\frac{1}{4}$ -pint decimal saline solution was given per rectum every eight hours during the greater part of the illness. These were well retained, and seemed to be followed by a temporary improvement.

Locally, ichthyol, 10 per cent., with lanolin was applied, but seemed to have no effect whatever in staying the advancement of the infection. No antistreptococcus serum used.

The interesting features in the case were that the mother nursed the child through her attack of appendicitis just prior to the infant's illness; the appearance of the sore mouth, being followed by the middle-ear trouble, the discharge from which suddenly stopping to be immediately followed by the erysipelas infection in the neighborhood of the ear. Whether these circumstances had any part to play in the source of the erysipelas I will leave it for the Fellows to decide.

In a review of the literature on the subject I find most authorities agree that the affection is excessively fatal in infants; that they generally succumb to exhaustion from the persistence of the inflammation. Its tendency to wander over the general surface, with the development of a peculiar induration of the cutaneous and subcutaneous tissues. Trousseau confessed that he had never seen an infant less than a month old recover, and quoted Dubois, Moreau, Moynier and others to similar effect. Of six cases less than six weeks old recorded by J. Lewis Smith, all died. Exceptional recoveries have been recorded, but they only serve to accentuate the high rate of mortality of the disease in tender infancy.

**HEMOPHILIA—SYNONYMS, HEMORRHAGIC DIATHESIS
OR IDIOSYNCRASY, HEMORRHAPHILIA, HEREDITY
HEMORRHAGE—GER. BLUTERKRAUKHEIT
OR BLUTUNGSSUCHT.**

BY A. J. HARRINGTON, M.D., TORONTO.

Definition.—An hereditary and congenital disease characterized by a tendency to frequent obstinate and prolonged hemorrhages and frequently uncontrollable.

Etiology.—Most frequently met in males, the proportion being about 10 to 1. Hereditary disposition is so essential that its absence in a supposed case is said by some authorities to negative the diagnosis.

Symptoms.—Frequent obstinate and prolonged hemorrhages, spontaneous or traumatic, and affection of the joints.

Site of Hemorrhages, as quoted by Legg and by Osler.—Spontaneous hemorrhages, from the nose, 169 times; the mouth, 43; stomach, 15; bowels, 36; urethra, 16; lungs, 17; cerebral hemorrhage, 2; swollen place on scalp, 4; tongue, 4; finger tips, 4; ear, 5; eyelids, 2; tear papilla, 3; female generative organs, 10; ulcer of skin, 2; navel, 2. Fatal hemorrhages have occurred from the following wounds: Blow on head, 11 times; slight scratches on skin or abrasion of dermis; laceration of frenum of the lip; slight cut in a duel wound; bite of tongue (7 cases); fall on mouth; blow on nose; blow of a stone on finger; cut in paring nails; fall on head, with meningeal hemorrhage (2 cases, brothers), and rupture of hymen on night of wedding.

Deaths after Operations.—Cutting of frenum linguæ, 1; leeching, 5; venesection, 4; blister, 2; extraction of tooth, 12; circumcision, 8; cutting umbilical cord, 4; vaccination, 2; fistula, stone; ligature of carotid, of radial, of ulnar, of femoral arteries, amputation of arm and of thigh, 1 each; phimosis, 2.

Morbid Anatomy.—There are no characteristic anatomical changes. The blood is usually normal, the fibrin is apparently not greatly diminished. When the joints are affected they present the characters of the usual inflammatory state.

Pathology.—This is obscure; vascular tone is thought by many to be the pathological factor; fragility of the vessels by others, while Eichhorst suggests the possibility of a chemical change in the blood not discoverable by our present methods.

Diagnosis.—Hereditary predisposition, the spontaneous and traumatic hemorrhages setting in early in life, and the joint symptoms, are the main points in diagnosis. Purpura (simplex and hemorrhagic) scurvy, peliosis rheumatica, toxic and septic purpura must be excluded.

Prognosis.—The younger the patient the more grave the prognosis. Hemophilia is more serious in boys than in girls. Long-continued oozing is a serious form of hemorrhage. These are the few facts connected with this obscure disease that have thus far been elucidated.

The following cases which have come under my observation may prove of interest:

CASE I.—Boy age 13; parents healthy, but mother neurotic; had a number of attacks of epistaxis during the year previous to my acquaintance with him, which had always been alarming owing to the difficulty of arresting the hemorrhage. I saw him early in the morning of July 3rd, 1900. He had bled a great deal during the night while he was partially asleep. I tried all the usual means, such as alum, tannic acid, vinegar, Monsel's solution, and with no success, so finally plugged both anterior and posterior nares, and after an hour and a half I was able to leave my patient with a very sore nose, and to find myself wishing there was something easier to do than arrest a nasal bleeding like this. Next day I saw the boy everything seemed fairly favorable, with the exception of thin red blood presenting round the plugs in the anterior nares. However, I concluded I would let well enough alone and left them there. I saw him again that evening, and as there was a very offensive smell I thought I would remove the plugs, which I did, and of course the hemorrhage began again; then I began to wish I had left them there, as he was to return home to Buffalo the next morning. How-

ever, I washed out the nose with a warm boric acid solution and placed a plug of cotton, covered with dry powdered suprarenal gland into the nostrils, and as if by magic the bleeding ceased. I then thought he could be safely taken to his home, and so advised him, giving his father some of the powdered suprarenal, and showing him how to use it, and the boy arrived at his home safely, only to succumb three weeks later to hemorrhages (interstitial, I suppose), which made their appearance all over his body, and defied the skill of the six physicians who saw him in consultation at his home in Buffalo. (This latter I learned from his mother a year after.) There was no history of bleeders in his family as far as I could learn, and the boy, when I saw him, presented every appearance of health. He has one sister who appears at present in good health.

CASE 2.—At Grace Hospital. New born infant; 48 hours after birth; frenum of tongue snipped for partial tongue-tie; mucous membrane only as it covered the band severed. Baby put to breast and began to suckle, and when withdrawn mother noticed staining of breast with blood, and on examining infant's mouth it was seen to be oozing. I advised house surgeon to use suprarenal powder, which would arrest oozing for few minutes, when it would ooze again. Seen by several of the hospital staff in consultation, and everything tried, both by current drug remedies and by actual cautery, but nothing was of avail, and infant died exsanguined. Father and mother healthy; mother neurotic; had had placenta previa marginalis at birth of this infant. The fourteen days previous to birth she had frequent hemorrhage from uterus, but nothing alarming. Pains during the birth were irregular, but separation of the marginal placenta had caused the hemorrhage to cease, and she was delivered satisfactorily with axis traction forceps, and the after hemorrhage controlled by hot water intra-uterine injections and the use of aseptic ergot hypodermically.

CASE 3.—Infant six months old; male; infant was brought to my office for what appeared a balanitis, with a small sero-sanguineous discharge. This had occurred on several occasions during the previous two months, but not to an extent to cause alarm. Father healthy; mother neurotic. As this infant had phimosis with a lot of redundant tissue, I advised circumcision. As his elder brother, four years old, had a somewhat similar foreskin, without, however, any symptoms of hemorrhage, I operated on both same day. The baby was operated on first; an ordinary elastic band around the base of the penis controlling the hemorrhage during the operation. I cut off the foreskin obli-

quely from the top downwards and forwards to edge of frenum, which I thought best to leave intact. Put in some fine silk sutures and dressed. The elder boy I removed much more of the foreskin and dressed. As these operations were very quickly performed, I left them both as I thought perfectly well, but was summoned back in an hour when I found there had been a great deal of oozing from the baby. I applied solution of adrenalin chloride, and then stitched the skin and the mucous membrane all round very closely, applied more adrenalin chloride and left the patient apparently well, but quite anemic in color. I was sent for again in half an hour, but not being in my office Dr. Young kindly saw the case, but beyond applying solution of adrenalin nothing else was thought advisable; saline enemata having been used in the meantime. When I arrived the infant was much more exsanguined, and the blood was oozing from the stitch opening, I took out all the stitches, having previously applied elastic ligature around penis; when this was taken off oozing came from all around the penis, and from the mucous membrane, partially denuded in freeing the glans from its adhesions to the foreskin. The infant was now thoroughly exsanguined, and died the same evening. The brother's operation presented no unusual features. These three cases presented some unusual features and might be tabulated thusly:

CASE	HEREDITY	HEMORRHAGES	JOINT AFFECTIONS	NEUROTIC
1.	No history.	Many.	Present.	Present.
2.	In mother.	Only one.	None.	Present.
3.	No history.	Several.	None.	Present.

In this affection all were males, all had neurotic mothers, all were fatal, and every known means had been used to control the hemorrhages.

REPORT OF TWO CASES OF ERYSIPELAS MIGRANS, PROBABLY CONTRACTED FROM PATIENTS SUFFERING FROM SCARLATINA.

BY GRAHAM CHAMBERS, B.A., M.B., TORONTO.

Recent investigations concerning the etiology of erysipelas appear to indicate that the external manifestations, as well as the fever and other constitutional disturbances, which together form the symptom-complex of the disease, may be due to several

forms of infection. In the human being these symptoms are usually caused by the streptococcus pyogenes, but may result from staphylococcus aureus infection. However, in some of the lower animals similar manifestation can be produced with pneumococci, and colon bacteria.

With regard to the bacteriology of scarlet fever nothing definite is known. Nowadays it is usually considered a mixed infection. The streptococcus is usually found on the mucous membrane of the throat and nose, and is the most common bacterium found in the suppurative complications of the disease. It was found by Baginsky and Summerfield in the heart's blood, taken immediately after death, in every one of forty-two cases. These investigators incline to the view that scarlet fever is always a septic process caused by streptococcus.

W. J. Class has also described a coccus usually appearing as a non-capsulated diplococcus, rarely as a streptococcus, which is invariably present in the pharynx and scales of patients with the disease. An intravenous injection of a culture of this germ into white swine produced a reaction very similar to that produced by scarlatinal infection.

Whether scarlet fever be due to a specific germ or a mixed infection there is some difficulty in explaining why there are so many complications and sequelæ. Erysipelas is one of these. Formerly when puerperal fever was more prevalent than at present, erysipelas in infants was frequently observed in foundling hospitals. It was considered to be due to the same virus as that which caused puerperal fever. The histories of the patients, which I will report to-night, suggest a somewhat similar relation between erysipelas and scarlet fever or its complications.

CASE I.—Male, aged 11 months, came under my care on October 20th, 1902. The patient was the youngest of three children in a family. The previous history of the infant has been fairly good; but the older children had been ill three weeks previously with vomiting and fever; slight red eruption on the skin. Mother stated that they were only ill for two days, and did not consider it necessary to call in a physician. About a week or ten days after this illness the glands in the neck of the younger of these two children became considerably enlarged and were in this condition when I made my first visit to the infant on October 20th.

The infant became ill with fever and restlessness four days previously to the date when I was called to the case. At my first visit I was unable to make a diagnosis. The temperature was high; tongue coated; child very restless, but there was no eruption on the skin or any symptoms of a definite nature to aid

me in determining the nature of the disease. However, on the following day a slightly raised red patch with well-defined edges appeared on the left cheek, and I was able to make the diagnosis of erysipelas. I prescribed a mixture of tincture of iron and quinine sulphate internally, and ointment of ichthyol and vaseline locally.

The eruption extended over the face and forehead. After four or five days the skin of the back became involved, and the inflammation of the face and forehead subsided. This again was followed by an outbreak in the right arm, then on the left arm, and finally on the right leg. In this manner the eruption pursued its erratic course during the progress of the disease. Slight exfoliation of the epidermis of the skin of the face followed the disappearance of the inflammation, but when the eruption faded from the back and arms the skin appeared normal. The constitutional symptoms remained about the same until the 24th day of the disease when pneumonia set in, and then the child gradually became weaker and died two days afterwards.

With regard to the further treatment of the case there was very little variation during the first two weeks. I then gave on three successive days 20 c.c. of antistreptococcus serum with no effect in the least on the course of the disease.

The important features of this case are the presence of fever, at least one day, and probably for five days before the appearance of the eruption, the migrating course of the eruption, and the probable source of the infection being scarlet fever.

CASE 2.—Male, aged two months. Two children in family. The elder is a boy aged two years. I was called to see the elder child on February 1st, and found him suffering, judging from the extent of the eruption and the constitutional disturbance, from a mild attack of scarlet fever. The patient was isolated, and during the first week the course of the disease was very mild. On the eighth day the glands of the neck became enlarged, and the tissues of the pharynx were considerably swollen. This was followed by suppuration of the middle ears. For a few days the child was very ill, and the mother, who was nursing the infant, made frequent visits to the sick room.

On the 21st of the same month the infant became ill. I saw it on the same day. There was a brawny red patch on the right side of the neck. Temperature 103.5. On the following days of the course of the disease the eruption continued to extend over the face, forehead and scalp, the parts involved at the commencement undergoing resolution. The eruption did not extend beyond the fold of the neck. The constitutional symptoms remained about the same until the 5th day, when the patient grad-

ually became weaker and died on the seventh day. With regard to the treatment, in addition to local applications of ichthyol, I gave 20 c.c. of antistreptococcus serum on five successive days; commencing with the second day of the disease. It did not appear to affect the course of the disease.

In this case of erysipelas, the virus no doubt was contracted from the patient with scarlatina. If scarlet fever is a mixed infection, due to unknown germ in combination with the streptococcus or other bacterium, the relationship of erysipelas and scarlatina is quite obvious. On the other hand, if scarlet fever is due to some form of streptococcus, as several investigators would have us believe, then I think that the erysipelas migrans may be due to the same germ.

THE DANGER OF CHLOROFORMING AT NIGHT.—Of course, we all know the old caution about the danger of chloroforming at night, because of the possibility of explosion from contact of the chloroform fumes with the naked flame. One was considered to have taken every necessary precaution in seeing that anesthesia took place as far as possible from a flame. The danger, however, to which we now call attention is of another kind. When, without any explosion, nurse and operator and assistant become unconscious, and even die, and it is subsequently learned that this fatal outcome is the result of inhalation of poisonous vapors, generated by the contact of chloroform gas with a naked flame, it is advisable to give wide currency to the facts so as to guard against their recurrence. The patients have, as a rule, in these instances, being free or relatively free from trouble, most probably because of the exclusion of the noxious vapors during anesthesia. Dr. Kenelm Winslow, in the *Medical Sentinel* of January, 1903, has a brief but exhaustive article upon this subject, ending with a useful bibliography. He has gone over the ground, and finds that the contact of chloroform vapor with a naked flame results in the formation of free chlorine gas and hydrochloric-acid vapor. Inhalation of these produces severe laryngeal and pulmonary irritation, congestion, and even inflammation, terminating in some cases in death. If chloroform is to be used at all at night, it is preferable to do so under the incandescent electric light. If, however, in the presence of a naked flame, signs of respiratory irritation should be looked for, and the chloroform stopped immediately upon their appearance, anesthesia should then be continued with ether. As this subject is a very important one, we should be glad to hear from any of our readers who may have had experience with it.—*Medical Council.*

Reports of Societies

THE FOURTEENTH INTERNATIONAL CONGRESS AT MADRID.

BY C. F. MARTIN, M.D., MONTREAL.

The invasion of Madrid by six thousand doctors from various parts of the civilized world is an event which has not often occurred in Spain—even in the days when the Caliphs of Cordova attracted men of letters and science to their courts, not only from the far distant East, but from places quite unknown to the then cultured world. That by far the greater number of "Congressistes" came for the rare opportunity of seeing a comparatively untravelled country goes without saying, and that they were by no means disappointed in the beauties of the scenery and the interest of historic monuments of Roman, Visigoth, Moor and Christian need not here be mentioned, nor would it be well to discourage others from a visit to the future congress at Lisbon by an admission of the discomforts and petty grievances incident to a sojourn in the Iberian peninsula.

Spaniards with their congenital tendencies of "never doing to-day what can be deferred till the morrow," had, perhaps, delayed too long with their committee arrangements, and visitors arrived at times to find a few difficulties in their way as regards lodging, registration, and sources of invitation to entertainments or meetings; but once being duly "orientist" every member of the Congress settled down to the delights of sections and entertainment. Those whose good fortune it was to be punctual had the pleasure of attending the opening ceremonies in the Royal Theatre, under the patronage and in the presence of the young and kindly King Alfonso XIII., who added to the pleasures of the visit by permitting a private audience in his magnificent palace to any member of the Congress, and entertained them on another occasion with a truly royal garden party in the palace grounds.

At the inaugural address, Dr. Calleja, the President of Congress and Dean of the medical faculty of Madrid, welcomed the visitors, and the various official government delegates replied, Dr. Pavy responding for England. It was an unfortunate coincidence that the American delegate from the United States arrived rather tardily, and was unable to make a way through the throng to reach the platform from which

the delegates were invited to speak. No one; however, seemed to attach any significance to the event, which may, at first, have had the semblance of discourtesy, in view of recent history. In the evening the city entertained all visitors at a reception in their magnificent city hall, a building famous for its historical reminiscences for more than two centuries gone by.

On the following morning the sessions opened in earnest, the usual comprehensive list of subjects being included, and many communications being offered, contrary to many former such international meetings, when one individual attracted the chief attention of all the members. There was none at the present Congress who might have been regarded as its central figure, such as in former meetings were Lord Lister, Prof. Virchow and Prof. Metschnikoff. Perhaps among the 3,000 Spanish, 800 French, 600 Germans, and the others from all parts of the world, the work of Ramon of Cajal was of most interest and the chief subject of comment and admiration.

Among the many interesting communications one recalls especially a lecture by Prof. Maragliano, on "Immunity;" one by Henchen on the "Visual Centres;" by Poynton, on his oft-repeated experiments to prove the infectious nature of rheumatism and chorea; by Lorand, on "The Relation of Thyroid Changes and Diabetes;" by Pick, on "Parotiditis;" by Sir Dyce Duckworth on "The Treatment of Malignant Endocarditis by Rectal Injections of Serum;" others, too, by Van Gehuchten, Robin, Escherich, etc., too numerous to mention here.

There was a comparative absence of the usual announcements of new appliances for the cure of medical diseases, and apart from a new means of curing many maladies by a new form of hydrotherapy, a new inhaler to introduce medicaments under pressure to the finest bronchial tubes, one was relieved to have little else to worry him in this regard. The surgeons, however, devoted not a little time to methods of gastric surgery and orthopedic appliances, the influence of Lorenz being quite apparent.

The gynecological programme—of too great a length to be even casually mentioned here—will be found in full when the transactions appear. The entertainments afforded the visitors, while not numerous, were most delightful, and included receptions by the city, by the Minister of State, operatic performance of "Carmen," several garden parties, excursions to the suburbs—while it was left open to the members to choose between a Sunday afternoon at the Art Gallery of the Prado or the disgusting monotony of a bull fight. Needless to say, there was ample time for both.

The Physician's Library

A Practical Manual of Insanity. For the Medical Student and General Practitioner. By DANIEL R. BROWER, A.M., M.D., LL.D., Professor of Nervous and Mental Diseases in Rush Medical College, and in the Post-Graduate Medical School of Chicago, etc., and HENRY M. BANNISTER, A.M., M.D., formerly senior assistant physician Illinois Hospital for the Insane. Philadelphia and London: W. B. Saunders & Co. Canadian Agents: J. A. Carveth & Co., Toronto.

The author's aim in this work is to present to the medical student and the general practitioner the essential aspects of mental disease. The subject of insanity should be studied by every general practitioner in order that he may become familiar, not only with the diseases of the insane, but also with borderland mental affections, such as occur in neurasthenia, hysteria, etc. Advanced works on the subject contain elaborate case records and pathological details, as well as discussions of speculative and controverted questions. In this manual these are omitted, and in order to make the work more practical and useful to the general practitioner some forms of insanity met in the practice of medicine and not in hospitals for the insane are described. A chapter on some of the ethical questions relating to insanity that may arise in the practice of medicine is also included in the text. The work is a very practical one and we recommend it to the profession.

Zapffe's Bacteriology. A Manual of Bacteriology for Students and Physicians. By FRED. C. ZAPFFE, M.D., Professor of Histology in the College of Physicians and Surgeons, and Professor of Pathology, Bacteriology and Hygiene in the Illinois Medical College, Chicago. In one 12mo volume of 350 pages, with 150 engravings and 7 full-page colored plates. Cloth, \$1.50 net; flexible leather, \$2.00 net. Lea's Series of Pocket Text-Books, edited by Bern B. Gallaudet, M.D.

Professor Zapffe's compendious manual covers the theoretical and clinical aspects of bacteriology in a manner answering the needs of general practitioners as well as of students. He accom-

plishes this by eliminating unnecessary discussions. Starting at the very beginning he carries his reader systematically up to the point of gaining a full and comprehensive view, not only of bacteriology, but also of its practical relation to medicine. The whole trend of the book is distinctly clinical—the proper object for a work designed to be of service to medical students and graduates. A course of practical laboratory exercises is likewise included in this singularly comprehensive volume.

The Medical and Surgical Uses of Electricity, including the X-Ray, Finsen Light, Vibratory Therapeutics and High Frequency Currents. By A. D. ROCKWELL, A.M., M.D., Formerly Professor of Electro-Therapeutics in the New York Post-Graduate Medical School and Hospital, Fellow of the New York Academy of Medicine, member of the American Academy of Medicine, member of the New York Neurological Society, Formerly Electro-Therapist to the Women's Hospital in the State of New York.

The book contains two hundred and fifty-two illustrations. It is a new edition of the revised work by Beard and Rockwell, with six new chapters, introducing X-Ray, high frequency currents, Finsen light, etc. The early part of the book contains six chapters on electro-physics, and eleven on electro-physiology. It takes up the principles of production of the different kinds of currents. The definitions of the terms used, as polarity, magnetic induction, etc., are clear and concise. The different varieties of apparatus in use for developing the energy are exhibited and clearly explained. All the varieties of apparatus, as galvanic and Faradic batteries, static influence, and frictional machines are described, and their adaptation explained. The chapters on electro-physiology and electro-therapeutics are particularly instructive and well written. They contain in a concise form a vast amount of information, but in such a form that the ordinary practitioner, with his limited knowledge of electro-physics and the chemistry of electrical changes, can comprehend and successfully apply. The physiological effects of electricity on the skin, brain, motor and sensory nerves, muscles, blood, nutrition, etc., are indeed interesting reading, as well as highly instructive. The sections on electro-therapeutics, electro-surgery, embracing thirty-eight different chapters, commends itself to the profession for the great care exhibited in setting forth

briefly, yet comprehensively the exact therapeutic effects of electricity in the different affections to which it is suited, as well as for the minute details of technique and application, with full description of the most approved form of electrodes, etc., for each case. The value of electricity as a therapeutic agent is not over-estimated, as is too apt to be the case in works on this subject. Moderation and good judgment are exhibited throughout the whole range of the subject discussed. The last six chapters on the latest developments of this mode of motion, X-radiance, actinic light, etc., add much useful and instructive information upon a subject that has been receiving well-merited attention of late. The book is a valuable addition to the literature on this subject, as well as a convenient reference book for the busy practitioner.

Atlas and Epitome of Operative Surgery. By DR. OTTO ZUCKERKANDL, Privatdocent in the University of Vienna. From the Second Revised and Enlarged German Edition. Edited, with additions, by J. CHALMERS DACOSTA, M.D., Professor of the Principles of Surgery and of Clinical Surgery, Jefferson Medical College, Philadelphia, etc. Second edition, thoroughly revised and greatly enlarged. With 40 colored plates, 278 text illustrations, and 410 pages of text. Philadelphia and London: W. B. Saunders & Co., 1902. Cloth, \$3.50 net. Toronto: J. A. Carveth & Co.

This excellent work, one of Saunders' well-known Medical Hand-Atlases, needs no further recommendation to English-speaking readers than its author's name—Dr. Zuckerkandl. The rules and methods of surgical procedure are stated with the clearness that springs from definite knowledge and the emphasis born of conviction. The operations of modern surgery are described lucidly and tersely, making the book a worthy guide alike to the student and the practicing surgeon. The verbal descriptions are most accurately reinforced and illuminated by a large number of original colored lithographic plates and text cuts. In this new edition the work has been brought precisely down to date. The revision has not been casual, but thorough and exhaustive, the entire text having been subjected to a careful scrutiny, and many improvements and additions made. A number of chapters have been practically rewritten, and of the newer operations, all those of special value have been described. The num-

ber of illustrations has also been materially increased. Sixteen valuable lithographic plates in colors and sixty-one text figures have been added, thus greatly enhancing the value of the work. There is no doubt that the volume in its new edition will still maintain its leading position as a substitute for clinical instruction.

Hyperchlorhydria: a Symposium. The June issue of the *International Medical Magazine* will be devoted to a symposium on this most important gastric subject, than which none more important has ever been published in any American journal. More than half a dozen of the leading European specialists will contribute, among whom are: Prof. C. A. Ewald, Berlin; Prof. George Hyem, of Paris; Prof. Carl von Noorden, of Frankford; Dr. L. Kuttner, of Berlin; Prof. Rosenheim, of Berlin. The selection of contributors from this side of the Atlantic has been equally happy, and the following will take part: Prof. John C. Hemmeter, of Philadelphia, on "An Experimental and Clinical Study of the Etiology of Hyperchlorhydria;" Dr. Allen A. Jones, of Buffalo, on "The Effervescence Test for Gastric Acidity;" Dr. Boardman Reed, of Philadelphia, on "A Further Development of the Benedict Effervescent Test of Gastric Acidity;" Dr. John A. Lichty, of Pittsburg, on "The Relation Between Hyperchlorhydria and Neurasthenia;" Prof. Feinton B. Turck, of Chicago, on "The Treatment of Hyperchlorhydria;" Dr. A. Robin, of Newark, Delaware, on "The Etiology of Hyperchlorhydria;" Dr. Max Einhorn, and others.

CALOMEL IN PEDIATRICS.—In administering a laxative, Ladbiewski (*Jahrbücher f. Kinderheilkunde*, No. lvi.), prefers castor oil to calomel and enlarges on its almost marvellous action in flatulent colic, dyspepsia, febrile gastro-intestinal catarrh, convulsions from indigestion, icterus, hydrops and syphilitic and scrofulous eye affections. He gives ten to twelve doses of calomel ophthalmicus in .005 to .02 gm. quantities, according to age, preferring this form of the drug as the finest pulverized. This preparation he advises made up fresh, as traces of sublimate develop in the mixture of calomel and sugar also in time. Calomel decomposes on exposure to sunlight; and salt, salted foods and cherry laurel water, iodine and ammonium chlorid have a tendency to transform part of the calomel into sublimate.—*Pediatrics*.

Desiring to make a practical, useful journal for the General Practitioner,
the Editors respectfully solicit Clinical Reports from subscribers and others.

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ONTARIO MEDICAL ASSOCIATION.

Everything is in good shape for the opening of the annual meeting of the Ontario Medical Association on the 16th of June. Dr. J. H. Musser, of Philadelphia, the President of the American Medical Association, will be present and read a paper on a medical subject. Dr. Thomas S. Cullen, of Baltimore, will contribute a paper on "Uterine Myomata and Their Treatment." There is to be a discussion on Arterio-Sclerosis, opened by Dr. H. B. Anderson, Toronto, whose paper will deal with etiology and pathology. The Cardiac Aspect will be handled by Dr. T. W. G. McKay, Oshawa; the Cerebral, by Dr. Hugh McCallum, London; the Renal, by Dr. John Caven, Toronto; the Ophthalmic, by Dr. J. C. Connell, Kingston, while the Therapeutic part will be looked after by Dr. John L. Davison. Then the following papers have been promised:

"The Business Aspect of Medical Practice." N. A. Powell.

"Surgical Treatment of Septic Peritonitis." J. F. W. Ross.

"The Medical Witness Under Cross-Examination." Mr. Riddell, K.C.

- "Diagnostic Significance of Albumin in Urine." John Amyot.
- "Treatment of Chronic Empyema." Alex. Primrose.
- "Operative Treatment of Goitre." George A. Bingham.
- "Otitis Media." G. H. Burnham.
- "Sanatorium Treatment of Tuberculosis." C. D. Parfitt.
- "The Adjuvant Treatment of Pulmonary Phthisis." J. Frank McConnell, Les Cuicas, New Mexico.
- "Reports of Cases." W. B. Thistle.
- "The Lung Reflex." R. D. Rudolf.
- "Abscess of Antrum." Perry Goldsmith, Belleville.
- "Exercise in the Treatment of Chronic Disease." Alex. McPhedran.
- "Reports of Cases." Wm. Oldright.
- "Obstetrical Paper." Adam Wright.

THE CRUCIAL POINT IN APPENDICITIS.

For long the battle in appendicitis has been the time at which to operate, but now the Surgical Section of the American Medical Association, at its recent meeting in New Orleans, has unanimously agreed that operation for appendicitis should be done the moment the condition is diagnosed, provided that the symptoms present pointed out or showed that the disease was confined to the appendix, and to that organ or structure alone. If, however, the symptoms point to involvement of the peri-appendicular tissue, the treatment should, according to the Chicago surgeon, Ochsner, be gastric lavage, absolutely no food or medicine by the mouth, but rectal feeding, unless it produces pain. In the patient who has passed the stage where the inflammation has been confined to the appendix, the above treatment used, 97 per cent. should recover, and operation be practised then with practically no fatality.

In the discussion of the whole question of appendicitis, there are two standpoints from which to view it, viz., that of the general practitioner, and that of the operating surgeon. The cru-

dial point is different to the two medical men concerned; and as the great majority of these cases first come to the attention of the general practitioner, the specific point to be decided is not "when to operate," but when to call in the surgeon. Too often has the surgeon had cause to complain, "If I had been called earlier."

"When is operation necessary and when should I call a surgeon?" are the points to be decided primarily, and these are of first importance. To call a surgeon and have him refuse to operate on account of the case having progressed too unfavorably, is humiliating; to call him and have him say, it is not time to operate, is none too credible to the medical man's acumen. Close observance of the case in hand, combined with sound judgment, must lead the general practitioner to decide upon the proper time to call the surgeon, who will immediately proceed to operation in any given case.

ACQUIRING THE ALCOHOLIC HABIT THROUGH PATENT MEDICINES.

It is now a well-known fact to the medical profession that the much-vaunted nostrums of the public press contain large quantities of alcohol, some up to the extent of forty per cent., but that the laity, especially the temperance laity, is cognizant of this fact, is not by any means so sure. No doubt the patent medicine tippler has long ago been seized of the fine nervine qualities of these never-failing cure-alls; and if he perchance happens to have attained some little celebrity in his local sphere, has had his picture in the paper, and has thus been made doubly happy. What fine embellishments for the public press are these "before" and "after," these cadaveric and bloated physiognomies, paid for by the square inch! A well-known surgeon said in our presence the other day that he believed the people in this country drank too much tea and coffee, and too little ale and beer. This is probably correct, but he might have gone a step further and included "swilling" with patent alcoholic preparations. What little medicinal properties these masked "compounds" possess is due

altogether to the iodide of potash and alcohol they contain, and one had far better take his "bitters" openly and above-board in **the form** of beer and ale than be constantly drenching and soaking the **system** with these "sure-shot" decoctions. The people are not alive to these dangerous preparations, and what is more, the public press is **not going** to put them on. The revenues from that source of advertising **are too** fat for that; but if only one could be got to step out and scrape **off the filth** and slime which daily, in great chunks, is daubed here and there on every page, column after column, there might be some hope of a good all-round revival. There are a few periodicals in the United States which wholly eschew all advertising of this class, a most notable instance being the *Ladies' Home Journal*, which has steadily and persistently refused to fatten at the patent medicine trough. Decent journalism demands clean sheets, and not minute descriptions of running sores, gonorrhoeal discharges, etc., etc., *ad nauseam*.

THE THERAPEUTIC PROPERTIES OF MILK SERUM.

Before the recent meeting of the International Medical Congress at Madrid, Dr. R. Blondel, Paris, read a paper upon the "Physiological and Therapeutical Properties of Milk Serum." The serum is obtained in this manner: At a temperature of 38 deg. C. cow's milk is rapidly coagulated through the medium of an acid, subsequently neutralized with soda, and then filtered through a porcelain filter. Serum obtained in this manner contains a definite proportion of albumen and of organic ferments, as pepsin, trypsin, lipase, and glycolytic ferment and oxydases, in addition to milk-sugar and the salts found in milk. Apparently after hypodermic injection into a healthy man in doses of 20 c.c. per diem, the excretion of urea, of uric acid and phosphates, was considerably augmented. Blood pressure is remarkably lowered. A number of cases of infectious fevers, in which the serum had been administered, was reported. The effect of the injections in these cases was to lower the temperature, the cause being put down, by Dr. Blondel, to two physiological actions: (1) That

of the oxidizing ferments which destroyed the toxins, and (2) that of the albumin, which was present in the serum, which thus brought about a marked leucocytosis. The most encouraging results recorded were in cases of puerperal septicemia. In these cases, the simultaneous administration of 5 to 10 centigrammes of sulphate of quinine is said to have had a marked effect in increasing the power of the injection to lower the temperature. This is the remarkable point in the treatment, as quinine alone has no effect in cases of puerperal fever. Dr. Blondel has tried the treatment in thirty cases, including surgical cases and cases of puerperal septicemia.

Editorial Notes

The Next Question in Surgery.

The surgical section of the American Medical Association, at its meeting in New Orleans last month, unanimously agreed that operation for appendicitis should be done the moment the condition was diagnosed if the symptoms pointed to a limitation of the disease to the appendix itself. After involvement of the peri-appendicular structures the treatment of the case should be along the lines suggested by Ochsner, namely, frequent gastric lavage, absolutely no food or medicine by the mouth; rectal feeding, unless it produces pain. Patients who had passed the stage of primary involvement of the appendix, when subjected to this treatment, recovered sufficiently to be operated upon in 97 per cent. of cases, said operation being followed by practically no fatality.

For those of us who practise general medicine, this outlines our course and defines our responsibilities in a most satisfactory manner. Although by no means invariable, yet it is the rule that the peri-appendicular tissues are not involved during the first forty-eight hours; it therefore becomes our duty to operate upon such cases the moment the diagnosis is made. After peri-appendicular involvement, which in most cases means after the forty-eighth hour, the patient should be subjected to the rigid hygiene of Ochsner. A general application of this most recent decision

of the surgical section will unquestionably be life-saving in its results.

The next question the surgeon has set for himself is, if possible, of even greater practical importance than that of appendicitis. Digestive disorders have ever been the bane of our people and the humiliation of our profession. What prospect of relief is there in the future of gastric surgery?

Such men as Mayo, Rodman, Ochsner, and others are now teaching that practically all of the surgical diseases of the stomach are the product of gastric ulcer. Who will say that Mayo, that master of American surgery, is not a true prophet when he proclaimed that "We as externists shall soon be able to say to the internist, 'Send to us your intractable cases of neurasthenia, of hysteria, of confirmed gastric irritability and dyspepsia and we will at the end of a simple and virtually safe operation hand you the excised ulcer which you were unable to cure, and which was the causative factor in the condition.'" When that time comes, and come it will, the surgery of the stomach will reach its goal.

The immense literature of internal medicine furnishes page after page devoted to the treatment of conditions which, until very recently, were looked upon as separate entities. It will not be one of the least of the many great achievements of American surgery when it shall prove the etiological unity, of apparently such widely different conditions as gastric carcinoma, perforation, hemorrhage and ulcer.

The corollary of all this for the general practitioner is that he should make up his mind that those of his patients who have vague gastric symptoms which do not respond to rational internal treatment may not be longer left to their own devices. Such people usually have ulcers of the stomach or duodenum. Unless the practitioner wishes to take upon himself the responsibilities of leaving within that patient what is now recognized as the paramount cause of malignant disease as well as many other incurable conditions he will consult a surgeon and advise his patients to submit to a harmless exploratory investigation, which, in an increasing number of cases, will end in absolute relief by operation.—*Editorial in Medical News.*

The Treatment of Hallux Valgus and of Hammer-Toe.

There is a movement in England at the present time in favor of allowing the human foot to develop its normal shape. Mr. William Thomas (a delegate of the British Orthopedic Society

to the Fourteenth International Congress at Madrid), states that in elderly people it is not desirable to interfere by means of operative surgery in hallux valgus and hallus flexus unless the deformities are producing pain or great discomfort. When operative interference in hallux valgus is required, he considers the best proceeding is to take a wedge of bone from the metatarsal bone of the hallux. He removes an elliptical piece of skin, which is made to include the bunion, nearly always present in these cases. Then the wedge is removed from just above the articulation of the metatarsal with the phalanx. When the cut surfaces of the bone are applied to each other, the foot should be in the same line with that of the toe. Mr. Thomas does not now think amputation necessary in the painful affection called hammer-toe, or flexus digitus pedis. The second digit first and then the fourth are the toes usually affected. Mr. Thomas treats the combined condition of hallux valgus and hammer-toe by what he calls a "tomato splint." This can be made of dentist's vulcanite, aluminum, brass, wood, or celluloid. The following is a description of this splint: "Formed of one of the above materials it served as a splint, fitting to the under-surface of the toes, and affording a groove in which each toe lay in the normal position. The posterior border was concave and rested against the heads of the metatarsal bones. The upper surface had three grooves, one for each of the three middle toes, and two half grooves for the great and little toes. Between the grooves were raised septa, the one between the great toe and the next being higher than the others, and the septa were pierced, so as to allow the strapping, tape or elastic by which the splint was fixed to the toes to pass through." Properly applied and regularly worn, Mr. Thomas claims this splint will bring a majority of the most distorted toes to their normal condition.

The Treatment of Eclampsia.

Dr. John Cooke Hirst, of Philadelphia, records in *American Medicine*, 122 cases of albuminuria with forty-eight cases of eclampsia occurring during the past thirteen years in the maternity of the hospital of the University of Pennsylvania. Before labor began there were twenty-seven cases of convulsions; during labor, one; after labor, eleven; before labor, and persisting after, nine. In the first class there were five deaths; in the second, none; in the third, seven; in the fourth, three. The percentage of occurrence after

labor was 22.9; the percentage mortality after labor was 63.6, which statistics would go to show that eclampsia occurring after labor is of very grave incidence. The following is the treatment pursued, given in Dr. Hirst's own words: "The convulsions are controlled by chloroform, and during the convulsions it is usually necessary to use some form of mouth-gag to keep the patient from biting her tongue. Most of the women in the series came into the hospital with their tongues dreadfully bitten. In the hospital we use the regular form of mouth-gag; in private practice a tooth-brush handle wrapped in a handkerchief answers every purpose. The woman is purged by the administration of Epsom salts in concentrated solution, 2 drams every 15 minutes until a free evacuation occurs. If she cannot swallow, croton oil, two drops in a little sweet oil, on the back of the tongue is substituted. If the pulse is very full and bounding, veratrum viride, 15 minims, is given hypodermically, and repeated in doses of five minims every two hours until the pulse softens. Very rarely venesection may be necessary. The patient is given a hot-pack or a hot-air bath is given for thirty minutes every four hours. Hypodermatoclysis of one pint of salt solution under each breast is given every four hours, alternating with the hot-packs. If the patient is seen far advanced in labor, with the os dilated and the head well down, there is no question of the propriety of terminating the labor with forceps.

What is a Spoonful?

The French *Codex* states that a spoon is full when the liquid it contains comes up to, but does not show, a curve above the upper edge or rim of the bowl. The Philadelphia College of Pharmacy has recently resolved upon promulgating this definition and have been endorsed by the American Pharmaceutical Association. The equivalents with the metric system of weights and measures are as follows: One teaspoonful, 5 c.c.; one dessert-spoonful, 10 c.c.; one tablespoonful, 3 teaspoonfuls, or 15 c.c.

Salocreol in Erysipelas.

Salocreol is a preparation derived from beech tree tar, which contains all the various phenols of this tar, combined with salicylic acid. It is an oily fluid, insoluble in water, but readily soluble

in alcohol or ether. According to Dr. Julius Guezda, of the Clinic of Professor Leyden in Berlin, a prompt action is observed after application of this preparation in cases of erysipelas. As regards the tension of the skin in the parts affected the patients experienced immediate relief, and cases have been observed in which the utterly closed eyes could be partially opened in twelve hours. Spreading is effectually stopped by treating the skin in the immediate neighborhood of the parts affected. Salocreol is said also to have a marked effect in reducing swollen glands after measles, scarlet fever and diphtheria.

Disguising Unpalatable Drugs.

According to Maresch (*Trelleborg*, Sweden), who has made many experiments along these lines, many ill-tasting drugs can easily be made into an emulsion with cocoa and sugar, and their taste thereby hidden. Bitter drugs like quinine, and nauseous drugs as castor oil, he mentions especially. The emulsion is best made by a process involving quick cooling.

News Items

DR. HAYES, of Sarnia, makes his professional calls in an automobile.

DR. POUSSETE has resigned his position as senior surgeon on the G. T. R. at Sarnia.

DR. HERSHEY, of Owen Sound, has been appointed quarantine officer at Owen Sound.

DR. MORRISON, formerly of Pinkerton, has returned from Vienna, where he has been for a year.

DR. C. F. SMITH, St. Mary's, has been officially notified that he has been appointed coroner for South Perth.

DR. WICKETT, who has been in New York taking a post-graduate course, has returned to Watford.

DR. S. G. STORY, Blenheim, Ont., is taking a post-graduate course in surgery in the Johns Hopkins College.

DR. SMITH, of Bayfield, has consented to take Dr. Campbell's practice, during the latter's absence in the Old Country.

DR. W. H. DRUMMOND attended the meeting of the American Library Association, which took place during the first week of June, at Niagara Falls, N.Y.

DR. E. L. CONNELLY, M.B., M.C.P.S.O., has decided to locate in Collingwood, and has opened an office over Douglass' drug store on Hurontario Street.

DR. A. D. MCLAREN, formerly of Petrolea, has been appointed County Physician in Port Huron, to succeed Dr. Mills, resigned. The salary is \$1,000.

DR. R. B. COTTON, of Regina, died recently from pneumonia, aged 48 years. Deceased, who was a brother of Dr. J. M. Cotton, of Toronto, went to Regina from Mount Forest, Ont., in 1882.

THE Hospital Trust, London, have appointed Drs. J. R. Armstrong, S. F. Abbott and J. D. W. Hunt house surgeons for the current year. Dr. G. E. Chapman will be appointed on January 1st, 1904.

DR. W. F. BABB, of St. Mary's, who was a member of this year's graduating class at the London Medical School, has been appointed assistant house surgeon at St. Joseph's Hospital, London.

DR. FRED. THOMSON, Mitchell, Ont., who has been on the Continent for nearly two years prosecuting his studies in medicine and surgery, will shortly return home, and locate in one of the large cities.

DR. HENRY C. WALES, who has had charge of the late Dr. Bridgland's medical practice during the illness of latter, has decided to remain in Bracebridge, and will retain the office in Bridgland's drug store.

DR. J. E. GODFREY, of Grace Hospital, Toronto, has accepted a position in the Mining Company's Hospital at Copper Cliff, Ont.

DR. ASHTON, of Brantford, has been appointed to the position of consulting and visiting physician in the National Sanitarium Association, which has control of the Muskoka Cottage Sanitarium and also the Muskoka Free Sanitarium.

LADY MINTO'S COTTAGE FUND.—More than \$51,000 was subscribed for Lady Minto's Cottage Hospital Fund at a meeting in Toronto on the 16th of May. Senator Cox, D. D. Mann, Wm. Mackenzie, Chester Massey each gave \$10,000.

DR. CASSIDY, of Moorefield, has sold his practice and residence to Dr. Moore, who assisted him during the time he was laid up through breaking his leg a little over a year ago, and purposes travelling for a year before settling down again.

DR. JAMES PERRIGO, Montreal, is confined to his room as the result of an accident which occurred while he was performing an operation for appendicitis. He accidentally pricked one of his fingers with the operating needle, and blood poisoning set in.

DR. EDMUND G. WEIR, late house surgeon Toronto General Hospital, and son of James Weir, North Toronto, has just been successful in passing the double qualifications in London England, of M. R. C. S. and L. R. C. P. The doctor will remain for some time further pursuing post-graduate work in London and European hospitals before returning to Canada.

DR. CHARLES LANG, son of Dr. Hugh Lang, of Granton, who has been pursuing advanced studies in Great Britain, has been admitted, by examination, to the membership of the Royal College of Surgeons, England. Sometime ago he received the diploma of the Royal College of Physicians, London. He intends to visit Vienna, where he is registered in special courses in the ear, eye, throat and nose. He will then spend some further time in Edinburgh to further perfect his knowledge before returning home.

BRITISH COLUMBIA MEDICAL EXAMINATION.—The results in the semi-annual examinations of the Provincial Medical Society were as follows: Charles N. Cobbett, who will practise in Van-

couver; George G. Chipperfield, who intends practising in Revelstoke; J. Harold Jones, who will be on the staff of the Royal Columbian Hospital at New Westminster; Harvey A. Christie, who is going to Vananda; Lewis J. O'Brien, who goes to Nanaimo; John S. Burns, who goes temporarily to Kamloops; Edward W. Connolly, who is going to Chemainus for the present, but will probably locate in Lillooet; Walter Graham, who is going to Revelstoke, and Naboth Allan, who will probably practise his profession in Chilliwack.

THE quarterly meeting of the Lambton County Medical Association was held in the Council Chamber, Petrolia. The following members of the profession were in attendance: Drs. Fisher, Brigden; Logie, McDonald, Bentley, Sarnia; Brown, Camlachie; Newell, Watford; Harvey, Chappelle, Wyoming; Balfour, Butler, London; Macalpine, Calder, Dunfield, Mulligan, Allin, Petrolia. The entire afternoon session was occupied with the presentation and discussion of an important paper on "Pathological Labor," by Dr. J. D. Balfour, of London. The other papers, including one by Dr. B. S. Butler, of London, on "Eye Strain," were held over to the next meeting, which will be held in Sarnia on July 8th. The visiting physicians were entertained at dinner at the Fletcher House by the local profession.

MONTREAL medical circles recently entertained a distinguished surgeon from across the Atlantic. The visitor was Dr. Mikulicz, the eminent German surgeon, who is known the world over among surgeons as the originator of the operation which bears the name pyloroplasty. Dr. Mikulicz was in Washington at the Medical Congress, where Dr. Frank Shepherd, one of Montreal's foremost surgeons, met him and gave him an invitation to visit Montreal. Dr. Mikulicz performed an operation at the General Hospital. The operation was for umbilical hernia, which is not a very unusual nor a particularly difficult operation, but the speed with which the eminent German surgeon worked was marvellous. The whole operation, from beginning to end, occupied but twenty minutes. Dr. Mikulicz was assisted in the operation by Dr. Frank Shepherd. Among those who witnessed the surgical feat were a large number of the leading physicians of the city, and the senior class of the Medical Faculty of McGill University. Dr. Mikulicz was entertained by a trip on the river, and left Montreal for New York, on his way back to Germany.

UNION AT TRINITY.—The complete union of Trinity Medical College and Trinity University was announced at the convocation held on the 28th of May in Trinity University Convocation Hall on the occasion of the matriculation of and the conferring of degrees on medical students. Owing to the absence in Britain of Chancellor Robinson, Provost Macklem, Vice-Chancellor, presided, and almost all the members of the faculty were present. A very large number of visitors were present. The great body of the students occupied the gallery, and were exceedingly orderly throughout the whole proceedings. They were most enthusiastic as the lady students appeared. In former years the ladies came forward by themselves, but this year, ignoring the call of the registrar, the ladies took their places in the order in which their names appeared on the printed list, to the great amusement of the gallery and the temporary confusion of the platform. In a short address after the conferring of degrees, Provost Macklem expressed the earnest hope that Canada would make an effort to retain the best and brightest of her sons, so that they may not have to go to other lands to secure the reward for their great abilities. He was glad to know that the union of Trinity Medical College and Trinity University was now complete. They were united in the holy bonds of matrimony, which could not, according to Canadian law, be dissolved except by Act of Parliament. Short addresses were given by Prof. Clark, Dr. Bingham, Dr. Grasett and Dr. Sheard, each of whom expressed great pleasure at the announcement made by Provost Macklem relative to the merging of the Medical School in the University

CANADIAN MEDICAL ASSOCIATION.—Members and others purposing contributing papers to the London meeting in August are requested by the Programme Committee to send titles to the General Secretary, Dr. George Elliott, 129 John Street, Toronto, without further delay.

Selected Articles.

ON PROLAPSUS UTERI.—WITH SPECIAL REFERENCE TO AN OPERATION FOR REPRODUCTION OF THE SACRO-UTERINE LIGAMENTS.*

BY E. STANMORE BISHOP, F.R.C.S. (ENG.), MANCHESTER.
Honorary Surgeon to the Ancoats Hospital.

After quoting part of a paper by Mr. F. Bowreman Jessett which appeared in the May number of the *Journal of the British Gynecological Society* in 1901 on the same subject, and thus pointing out that to that author belonged the credit of previously devising and publishing an operation upon the sacro-uterine ligaments, Mr. Stanmore Bishop said :

But while this is the case, the procedure which I advocate, and which I desire to bring forward now, differs from the one which Mr. Jessett describes, not only in some points of technique, but essentially in its aim, and in the result produced. Mr. Jessett seeks to produce, and succeeds in producing, a return of the uterus to its normal level in the pelvis, and fixes it there—fixes the cervix to the sacrum behind and the fundus to the abdominal wall in front. So long as the adhesions which he makes between the structures hold good, the uterus is rigidly retained in position, and I conceive is unlikely ever again to prolapse, but the aim and result of his operation are firm fixation with little or no movement afterwards of the organ so fixed. The aim of the operation which I am about to describe is quite different. It is to obtain, as nearly as possible, a return to the normal condition. I should like to emphasize this phrase, "a return to the normal condition," because I believe that we have a right to expect such a return at the present time in these cases. It is to be noted that we have to deal in this deformity not with the ravages of disease, leaving behind them alterations in structure which render such a return impossible, or with actual losses of tissue which cannot be replaced, but with the results of injury, or traumatism, which are not necessarily followed by either of these—which leave the part affected in new relations to one another, it is true, but beyond this in most cases but little altered intrinsically, and, therefore, simply necessitating the repair of the results of such injury in order to restore the patient to the *status quo ante*; and this I believe in the majority of instances to be perfectly practicable.

* A paper read before the British Gynecological Society on Dec. 11th, 1902.

Therefore, we need, first of all, a definition of the normal uterus, and I offer this as practically useful for the purposes of this paper. The normal uterus is one which is free to move in every direction within certain limits, but not beyond, and which is capable of development in all its parts during a succeeding pregnancy. In order to make what follows clearer, permit me very briefly to draw attention to some points in the anatomy of this region. The general anatomy is, of course, perfectly well understood, but there are certain things upon which fresh light has lately been thrown, and these are, I think, worth consideration. The uterus is a muscular body with muscular offshoots, ending in tendons, the latter blending with the periosteum of the pelvis, at four points of which the two anterior are nearly opposite to the two posterior. These muscular offshoots are much longer in proportion to their width, and so permit of the free movement of the uterus within certain well-defined limits. They are the true ligaments of the uterus, and by their periosteal attachments they support the uterus at a normal level, and prevent prolapse. These true ligaments are the round or fundo-pubic ligaments in front and the sacro-uterine, sacro-genital, recto-uterine, or retro-sacral—for by all these names they are described by various authors—ligaments behind. Attached to, and swinging from, the periosteal insertion of these two ligaments to the bony pelvis, the uterus is free to move within certain limits, but not beyond. It is also perfectly free to develop in all its extent during pregnancy. If we wish to restore the uterus to a normal condition we must therefore so act as once more to leave it free to move within normal limits, but not beyond, and to develop in its whole extent during any succeeding pregnancy.

I need say nothing of the round ligaments. Their anatomy, position, and use are all perfectly well understood, but it may surprise some that I should describe the sacro-uterine ligaments as musculo-tendinous offshoots of the uterus. In old works on anatomy, and in most of later date, these ligaments are figured and described as mere folds of peritoneum. In "Gray's Anatomy," last edition, 1901, they are still so described. In the eighth edition of "Quain's Anatomy" there is exactly the same description, but this is altered to some extent in the last, the tenth edition, edited by Schäfer and Thane. In this, after describing the fold of peritoneum, it is said: "This fold contains a variable amount of fibrous tissue and some non-stripped muscular fibres forming the utero-sacral ligament."

Schultze, in 1888, in his work on "Uterine Displacements," p. 2, says: "These folds of peritoneum (referring to the folds of peritoneum surrounding the uterus) contain muscular bands arising from or inserted into the uterus, and in the ligamenta rotunda and ligamenta Douglasii, at the anterior and posterior edges of the folds these bands are particularly well developed. . . . From the posterior surface of the uterus, a little below the junction of the cervix

to the body of the organ, the muscular bands in the folds of Douglas pass to the lateral parts of the sacrum, nearly at the level of its second vertebra. The upper, so-called posterior, insertion of these muscular bands varies considerably, though it would seem that they always lose themselves in the muscular wall of the rectum, and in the subserous connective tissue. The anterior or lower insertion is formed by some muscular fibres from each side coalescing behind the uterus and forming a single unique muscle, called by Luschka the *musculus retractor uteri*. In the gravid or puerperal uterus the normal hypertrophy of the muscular tissue of the uterus extends to that of the folds themselves." But undoubtedly the best account of them is to be found in a paper contributed to the January number in 1902 of the *Journal of Anatomy and Physiology*, by Professor Dixon and Professor A. Birmingham. They say: "The sacro-genital ligaments . . . are two bands of mixed fibrous and muscular tissue which pass from the region . . . of the isthmus uteri in the female, outwards and backwards on each side to blend with the tissue on front of the lower end of the sacrum and the back of the rectum. The two genital folds, two well-marked peritoneal ridges covering these ligaments, become continuous with one another on the back of the isthmus uteri, forming the *torus uterinus* in the female." These bands are therefore true ligaments, and although small and covered by peritoneum in such a way that their actual character at first sight may escape, and has escaped recognition, are far more important as to resisting and supporting power than mere peritoneum could by any possibility be. Before the cervix, and with it the uterus, can descend, still more before they can be everted, as we see them in *procidentia*, these musculo-fibrous bands, the utero-sacral ligaments, must be weakened, relaxed, or torn through.

Besides these true ligaments of the uterus, upon the integrity of which, I contend, the maintenance of its normal position depends, there is another and broader attachment of the uterus—that, namely, to the bladder, which at first sight would seem to have much to do with its retention at a proper level. But firm as this connection is, its value is greatly discounted by the mobility of the bladder itself, an organ by no means firmly attached to its surroundings, and the posterior wall of it, to which the uterus is connected, being a structure which is continually varying in its position as the viscus of which it is a part, is filled or emptied. Everyone's experience of prolapse, and still more of *procidentia*, is that in such cases the bladder loses its own position and is dragged downwards by the descending uterus. Indeed, the converse theorem might be far more safely held, that the bladder depends greatly for the maintenance of its normal position upon its attachment to the uterus, and through it upon these ligaments than *vice versa*. Such a theorem would obtain additional support from the fact that Profes-

Dr. Dixon and Professor Birmingham describe these sacro-genital ligaments as existing also in the male. In male subjects they are attached anteriorly to the base of the bladder, and assist materially in its retention in its normal position.

The broad ligaments are usually considered to be amongst the more important structures which maintain the uterus at its normal level, but, I confess, I think without good reason. These ligaments—so-called, since they contain no real ligamentous tissue—are composed entirely of two folds of peritoneum, inclosing between them some loose connective tissue, arteries, veins, lymphatics, and a portion of the ureter. They have no true resistant power against descent of the organ which they inclose. Like all other portions of peritoneum they are capable of great extension by slow but persistent forces acting upon them; this is evident in all cases of procidentia. The uterus may be outside the pelvis, outside the vulva; it is still embraced by the broad ligaments, which are not torn through but simply stretched, and such stretching has evidently not met with any determined resistance from them. They are supple, smooth, in no way altered in structure, but have simply yielded passively to the forces brought to bear upon them. We see exactly the same thing in the formation of the voluminous sac of a large scrotal hernia. This capability of easy yielding to persistent force is indeed well exemplified in the changes which occur in these very folds themselves during pregnancy, and still more in that portion of them which covers the uterus itself. The peritoneal covering of an unimpregnated uterus is small indeed compared with the large expanse which lies upon that uterus at full term, but which is precisely the same, and will return to almost its original size and shape when once parturition is over.

It is evident that we cannot rely at all upon merely peritoneal attachments to prevent or to restrain prolapse, so that the value of the broad ligaments for this purpose is a negligible quantity. There are certain other things, the importance of which has been very generally emphasized by authors, as being more or less subsidiary factors in this question. Such are (1) the angle at which the uterus lies with reference to the vagina; (2) the potentiality of the vaginal canal, as opposed to the idea of an actual space beneath the uterus; (3) the action of the levator ani, pelvic fascia, and transversi perinei muscles in maintaining such potentiality, and in converting an actual canal into a valvular slit in the tissues; and (4) a postulated balance between intra-abdominal pressure and the external atmospheric pressure. Such a case as the following, however, counter-parts of which must be in the memory of all operators, demonstrates that all these subsidiary factors may be absent or non-effective, and yet so long as the true ligaments of the uterus are intact that organ will not descend.

A married woman, aged fifty-one years, attended at the Ancoats

Hospital in July, 1902, with the complaint that her uterus was coming down. She had had two children, the eldest of whom was twenty-seven years old. The labor had been a severe one, necessitating the use of forceps, and she attributed all her troubles to this confinement. The uterus commenced to come down, she said, as soon as she began to go about. On examination the perineum was found to be entirely absent; the sphincter ani was split, and the vagina and rectum had a common opening which was divided about half an inch above the skin level by a narrow band, the combined edge of the rectal and vaginal mucous membranes. There were marked rectocele and cystocele, but the finger passed up the vagina found the uterus in its normal anteverted position and at its normal elevation in the pelvis. Thus, although all subsidiary factors had been non-effective for twenty-seven years, and the patient had been engaged in a laborious occupation, necessitating much standing, the uterus itself had not prolapsed, its intrinsic ligaments being intact. Incidentally, and inasmuch as all these patients describe their condition in the same way, as a "falling of the womb," this case emphasizes the necessity of careful differentiation for operative purposes between true uterine descent and mere prolapse of the vaginal walls, for the latter of which conditions the operation for reproduction of the sacro-uterine ligaments is not required or suitable.

Returning to the true ligaments of the uterus, I think that a few moments' consideration will show that of the two sets—the fundo-pubic and the sacro-uterine—the integrity of the latter is of by far the greater importance. Their relative shortness, the position of their implantation below the main bulk of the uterus, their co-ordinate action with the vesical attachment in front, all render them more effective in maintaining the uterus in its normal position than the comparatively longer round ligaments which act upon the fundus. And, indeed, instinctively as it were, in all measures short of operative interference practitioners have always acted upon these facts. Where the perineum and its contained muscular fibres are intact, and often when they are not, pessaries have been used, designed apparently with the one idea of replacing or shoring up these sacro-uterine ligaments. I do not refer to rings or inflatable ball pessaries, which; indeed, are mere mechanical plugs, but to those pessaries which act upon a scientific basis—Hodge's, Thomas's, and their modifications. These all act in this way, although their action has been otherwise explained and justified. They support weakened and relaxed sacro-uterine ligaments, and if these are not torn through the support and rest so obtained may, and indeed often do, permit of the latter regaining their normal length and tone, and so the patient may be cured by the use of these appliances. When these ligaments are torn the upper bar of the instrument to some extent replaces them. In the first instance,

after a certain time the pessary may be disused, in the second it will always require to be worn, and this I conceive to be the reason why some patients will apparently be cured by pessaries worn for a sufficient length of time, whilst others can never dispense with their presence. Of course the integrity or otherwise of the other ligaments and of the perineum is a large factor in any given case, but not, I contend, of the primary importance which belongs to the sacro-uterine ligaments.

But if this is true of cases treated by measures short of operation, how is it, then, that when operative interference is undertaken, the importance of these posterior ligaments is so entirely ignored? Schultze himself, to whose description I have already referred, makes no such suggestion in his *résumé* of operations for prolapse. The reason I believe is to be found mainly in the conditions under which operations have been evolved. When first surgeons attempted to remedy this defect it was not possible as it is now to avail ourselves of all the routes by which the uterus might be reached. The sacro-uterine ligaments are deeply seated and difficult of access. Moreover, in all the old text-books on anatomy, as we have seen, they are described as mere folds of peritoneum. Not only is mere peritoneum useless, but to the pre-antiseptic surgeon the peritoneum was forbidden ground. It was the one structure in the body of all others to be avoided. Even in operating on herniæ, where it is now recognized as so all-important that the condition of the constricted gut should be known, the peritoneal sac in those days was opened only as a last resource, and operations were planned and instruments such as the old hernia knife and dissector were constructed for that one all-important purpose—to avoid opening the peritoneal cavity. Naturally in those days no attempt was made to interfere with the ligaments, and all operators busied themselves with attacks upon the uterus through the one avenue open to them—the vagina—and upon the one structure with which they believed that they could safely deal—the vaginal mucous membrane. It was not then a question as to what was the ideal treatment: it was a question of what was possible under the then existing conditions.

When an attempt was first made to shorten elongated and lax ligaments, those the ends of which lay outside the peritoneum and could be dealt with without invading that cavity were naturally the first to be attacked and the operation for shortening the round ligaments was devised. In cases of retroversion or retroflexion it has done extremely good work and will continue to do so; but it is curious to note that the importance of the genito-sacral ligaments was fully recognized by Alexander himself, who instituted this operation, although he and those who followed him made no effort to deal with them by operation. In his "Practical Gynecology," p. 61, he says: "The Hodge, or the Hodge and stem, according to the nature of the case, are always introduced just before

the operation is commenced. The Hodge should be fairly large so as to push the cervix well back and relax the posterior uterine ligaments. . . . The stem is removed at the end of the third week. . . . Where there is a weakened perineum, a tendency to cystocele or rectocele, or distinctly relaxed recto-sacral (*sic*) ligaments the perineum must be fortified at the same time that the round ligaments are shortened or a Hodge's or other pessary as an inferior support will require to be permanently worn."

Useful as this operation on the round ligament is in cases of retro-deviation, its inefficiency in cases of prolapse and procidentia is evident *à priori* from the very conditions of the problem involved, and is equally evidenced in practice by the numerous fixations which have been in vogue of late years. A pull from the uterine cornu towards a fixed point in the pelvis on the same or but very slightly higher level can never raise the whole body of the uterus to any great degree, still less if the posterior supports are gone can it raise and carry backwards the cervix. It will then simply draw the uterus forwards towards the pubes and so place it in a still more favorable position for further descent; and, recognizing this, surgeons who had overcome by that time all dread of an open peritoneum seized the uterine body and drawing it bodily forwards and upwards, fixed it to the nearest point which offered resistance, the abdominal wall above the pubes. But such ventrofixation materially interferes with the proper development of the anterior uterine wall in any subsequent pregnancy and so it became a matter of great importance to show patients who in spite of this had carried a fetus to full-time development. Several such cases are now on record, but whilst it has thus been shown that such a result is possible, cases are also on record in which abortion has occurred repeatedly, others in which the resulting parturition has been greatly impeded, and others in which death has resulted. It is human nature that successful cases should be emphasized and that those which have ended badly should be frequently unreported. The more honor to those authors who have faithfully recorded their failures, but none the less the departure from a normal condition induced by this operation and its results stands out clearly. No operator who has performed a ventrofixation, and still less the practitioner to whose unlucky lot it may fall to attend a patient through the succeeding period of irregular dilatation of the uterus during pregnancy and the equally risky parturition, can feel happy or secure until this severe test is well over, however triumphant they may appear afterwards. If nothing nearer to a return to the *status quo* is possible, the method with all its drawbacks may in some cases be justified—in women past the child-bearing period, for instance—but if better methods can be carried out, methods which attain more nearly to a restitution of the prolapsed organ to its original position and condition, then the supposed necessity of this plan loses its *raison d'être*.

I have myself performed a large number of ventofixations and besides the objections already mentioned another has been strongly impressed on my mind. The portion of abdominal wall to which the uterus has been attached, although relatively a fixed point, is not so absolutely. Months after the fixation has been carried out the area of fixation will be found to have sunk inwards, having been drawn backwards and downwards by the weight of the attached organ, which will have sunk again to a much lower level than that at which it appeared at the time of operation to be located, so that the final result is, even so far as the mere elevation is concerned, not so satisfactory as at first would seem to be the case. The bladder in many of my cases also was compressed to some extent; its capacity was decreased, so that the patients were troubled by undue frequency of micturition and an inability to restrain themselves for any length of time when desire to urinate arose.

I do not mention vaginofixation except to condemn it. I have practised it in one case but should never again attempt it. The principle upon which it is based is, to my mind, false, and its results, so far as I have seen them, are deplorable.

There is, moreover, one comprehensive objection to all these operations and a very forcible, if not a fatal, one. Consider for a moment the symptomatology of this condition. In the very earliest period of prolapse and increasing *pari passu* with it pain and a sense of dragging weight are felt in the lumbo-sacral region. The uterus as it descends usually becomes more bulky and many of the discomforts experienced are attributed to its increased weight. This is doubtless true, but for the full explanation I conceive that we must go still further back. The nerves of the uterus are derived from the inferior hypogastric and spermatic plexuses of the sympathetic system, both of which lie on the posterior concave wall of the pelvis behind the peritoneum and closely applied to the periosteal surface, as well as from the third and fourth sacral nerves of the spinal system. So long as the cervix maintains its normal position with regard to the posterior pelvic wall so long there will be no tension upon these nerve filaments, but immediately that position is altered by the rupture of the genito-sacral ligaments which keep the cervix in due apposition tension on these nerve fibres will commence and increase with every degree of departure from its normal proximity to the sacrum.

Again, the veins which return the blood from the uterus—the uterine veins—follow the course of the uterine arteries. Now, it is well known that traction upon the uterus in a downward direction will so kink and narrow these arteries that section of the uterus may be made through its entire extent without loss of any appreciable amount of blood so long as that traction is kept up, though the cut surfaces will bleed freely if the uterus is allowed to resume its

normal position. The less resistant and much thinner vein wall will be still more easily affected by descent produced by any cause. As the blood current in them is delayed hyperemia of the organ must necessarily ensue and the uterus become heavier still. Such increased weight leads to increased obstruction and a vicious circle is formed, escape from which is only possible by the restoration of the organ to its normal plane and its retention there.

From this point of view a survey of the various operations practised brings out still more plainly their inefficiency. Amputation of the cervix, which I have omitted, although it may decrease the actual weight at the moment, can never reapproximate the lower part of the uterus to the sacrum and so relieve tension in the nerve fibres supplying that organ; and the same objection applies to any operation upon the mucous membrane of the vagina or upon the perineum. I believe that the words which I have quoted from Mr. Bowreman Jessett in the introduction of my thesis are absolutely true and that slowly but surely the weight of the heavy uterus above, acting as a wedge, will open up again the passage beneath, which has been temporarily narrowed, however ingeniously it may have been done, and it is evident that even immediately after operation the normal relation of the cervix to the sacrum has not been reproduced. The same precisely may be said of Alexander's, Olshausen's, or any of the other operations which deal solely with the round ligaments. Ventrofixation will certainly relieve the venous hyperemia by taking off the narrowing strain upon the blood-vessels of the uterus, but it cannot in any way replace the cervix in its normal relation with the sacrum and so restore the nerve filaments to their normal freedom from tension.

One last operation has been practised for the relief of this condition and surely we are justified in considering it the last effort of despair. This operation was described by Professor Edebohls at the Manchester meeting of the British Medical Association in July, 1902. When all else fails this operator removes the uterus, and with it the mucous membrane of the vagina down to the vulval edge. Then he unites the bared connective tissue between the bladder and urethra on the one side and the rectum on the other by a series of purse-string sutures, beginning at the peritoneal opening, pushing this up and placing another immediately beneath. Proceeding in this way until he reaches the skin, this also is united and a continuous perineum is thus produced, as in the male, from the anus to the urethra. He adds, very properly, that the result must be carefully explained to the patient before submitting her to this transformation.

It is, I think, evident that none of the operations which I have described, and which comprise all those at present in use for the cure of procidentia or prolapsus uteri, can fairly be described as producing a return to the normal condition, but that they are, on

the contrary, simply substitutions of one abnormal and deformed state for another. The change may be, and doubtless often is, an improvement on the original, but it is not, and cannot be, a reproduction of the *status quo ante*.

As I have endeavored to show, the genito-sacral ligaments, though small, are all important in maintaining the normal position of the uterus; in cases of prolapse, and *a fortiori* in those of procidentia, they are relaxed, lengthened, and in many instances are torn through. In the slighter cases the support of a properly fitting pessary by allowing rest and time for them to recover tone will be all that is required, but in the severer instances, where they are absolutely torn through, no amount of rest will bring about their reunion. Torn muscular fibre retracts and atrophies from disuse; in the case of small muscles such as these a few months will suffice to render them practically indistinguishable from the connective tissue in which they lie. Can anything be done to replace them, once more to afford stability to the postero-inferior segment of the uterus in its normal position?

Here it is well again to emphasize the importance if we are to restore the uterus to its normal position and condition, of its being free to move within certain limits. If absolute fixation of the antero-superior wall of the uterus is faulty, still more would absolute fixation of its postero-inferior segment be injudicious, since the normal descent of the cervix in parturition would be prevented and the escaping fetal head would find itself opposed by the immovable wall of the sacrum, the coccyx, and the firm fibrous structures spreading from them both. At the same time an attachment must be contrived which will be firm and permanent. For a fixed point the aponeurotic structures covering the anterior surface of the sacrum supply a perfectly satisfactory and sufficiently broad area for choice. In choosing the particular point the ureter and rectum must be carefully avoided. Both lie over these structures and beneath the peritoneum. Both are easily recognizable. So also are the nerve-strands which form elevated flattened ridges. It is wise also to choose a point fairly free from vessels. The main vessels—the common and internal iliac arteries and veins—are too far out for any uneasiness to be felt on their account. I have found that a point between the rectum on the inner side and the ureter on the outer is well adapted for the purpose. As to the height vertically on the surface of the sacrum, the manner of selecting this will be dealt with later. It will vary with almost every case.

In old cases of procidentia, as I have already pointed out, it is useless to search for the remnants of the original ligaments. They will have atrophied, and even if they could be found after a long and difficult dissection, the result of which would be needless damage to the tissues involved, they would be useless for repara-

tive purposes. Whilst this is especially true in such cases it is also true in minor cases of prolapse. Bovée,* however, claims to have found and united the torn ends of these ligaments both from the vaginal and from the peritoneal aspect. Personally, I believe that in every case this is mere waste of time and exposes the patient to needless risks. Like Mr. Bowreman Jessett I do not attempt a dissection which must be extremely difficult and is from the very conditions present foredoomed to failure, but seek to substitute something which will act in the same way, which is easily accessible, and which is sufficiently firm to be trustworthy.

Now, in the upper extremity of the posterior fornix a sufficiently firm resistant material is available which, whilst firmly attached to the cervix, yet is of sufficient length between its most superior point and that blended with the latter to permit of normal freedom of movement. It is this which is utilized as the new sacro-uterine ligament. Its superior surface is covered with peritoneum. If this is denuded by the removal of a short narrow strip, its connective-tissue surface is bared for attachment to the parietal peritoneum behind. Greig Smith long ago showed that the most permanent adhesion possible was one between peritoneum and bared connective-tissue, but in order still further to insure stability the suture which unites the two is passed deeply into the fibromuscular layer of the vaginal fornix without, however, penetrating its mucous coat. This is done on both sides, one suture on each side, and the cervix is now slung to the anterior wall of the sacrum by the upper anterior wall of the posterior fornix. You will note that no attempt is made to attach the posterior fornix to the posterior wall of the uterus, as in Mr. Bowreman Jessett's operation.

The technique of the operation, as I have carried it out, is briefly this: The protrusion being reduced the patient is placed in the extreme Trendelenburg position, and the abdominal wall is opened by a median incision. As soon as the intestines have sunk away from the pelvis towards the diaphragm two threads are passed through the broad ligaments, one on either side of the uterus inclosing tube and round ligament; the ends of these threads are tied, and by them as tractors the fundus of the uterus is drawn forwards. A special sound is passed up the vagina by an assistant and made to press upwards the posterior fornix so as to render it prominent. On either side a stout silk thread is passed vertically through the substance of the fornix, avoiding the mucous lining, so that each protruding end is half an inch distant from the other, and the whole loop is from one-half to three-quarters of an inch from the cervix. The fornix is now applied to the sacrum and a spot is chosen directly opposite, free from vessels and subjacent nerves

* *American Journal of Obstetrics*, July, 1902.

and ureter and well outside the rectum, where the needle carrying this suture is entered deeply so as to embrace the periosteum covering the bone ; it is brought out again half an inch directly above its point of entrance. Before tying this suture a narrow strip of peritoneum is removed from that portion of the fornix which lies in its grip, so as to bear the connective tissue beneath. This is repeated on the opposite side ; the sutures are tied and their ends are cut short. Sometimes the position of the rectum will only permit of single fixation. This should then be more central in its position as regards the uterus and somewhat broader. The new ligament or ligaments are now formed and the cervix hangs in its normal position from the sacrum by that portion of the vagina which lies between it and the sutures. The traction threads through the broad ligaments are now removed. As in all cases of procidentia the round ligaments have been also greatly lengthened, they are now shortened by Olshausen's method. But it is important not to shorten them to their fullest extent, so as to permit of some play still being left, so that the uterus may rise with the filling of the bladder beneath as in the normal condition. For this part of the work, Doyen's pubic retractor is very useful, giving as it does a clear view of these ligaments and of their points of exit from the pelvic cavity. I have found it to be rather in the way in the earlier stage, so that I only introduce it after the new sacro-uterine ligaments have been made. After shortening the round ligaments it is removed and the abdomen is closed. The position of the uterus and vagina is now as nearly as possible that which obtained before prolapse began, whilst the uterus itself is perfectly free to move within normal limits, perfectly free to develop in its entirety. This manœuvre does not, of course, exclude or attempt to take the place of perineorrhaphy if this should be necessary ; but any repairs of this kind I prefer to carry out at a later time, about fourteen days afterwards if all goes well. Of all the methods by which perineorrhaphy can be carried out Tait's appear to me to be the most rational, with certain modifications, but these are outside the scope of the present paper.

I have now performed this operation upon ten patients, but as their history and results are so far almost identical, and this paper is already so long, I shall only give details of two.

CASE I.—The patient, a married woman, aged thirty years, had had two children, the eldest being six years old and the youngest four years old. Her first confinement lasted for three days and was terminated by forceps. She attributed her prolapse to a fall down three stairs with the child in her arms nine days afterwards. Since then she had felt it more or less from time to time. Actual procidentia occurred first twelve months previous to examination. Defecation and urination were normal, but reposition of the uterus was required before the latter act could be performed. Her actual

state on admission was as follows: The perineum was very short, about half an inch. The sphincter ani was complete. The uterus was outside the vulva, and was somewhat enlarged and heavy. The sound passed three and a half inches. The os pointed to the anus. The general condition of the patient was good. The urine was normal. She had worn Thomas's ring, and pessaries. The first two did not remain *in situ*. The last was extremely uncomfortable and ineffective, some prolapse still occurring; probably, however, this was merely vaginal. On August 21st, 1902, the operation as described above was performed. Some difficulty with the intestines was experienced, notwithstanding the extreme Trendelenburg position. They were, therefore allowed to escape, and were surrounded and covered by warm flat sponges whilst the utero-sacral ligatures were placed. The left suture could not be satisfactorily made to penetrate the periosteum, owing to the trouble caused by the intestines and the frequently jerking character of the respiration, so that the parietal peritoneum only on this side was embraced by the suture. On the right side, however, the suture was properly placed. On searching for the round ligaments, these were found to be so attenuated that only by drawing the fundus backwards and so putting their peritoneal covering on the stretch could they be recognized. After uniting their intra-pelvic extremities the intestines were replaced and the abdomen was closed. No rectocele or cystocele was evident on inspecting the vagina afterwards. Urine was placed naturally at 11 a.m. on the next morning. The bowels acted well on the third day. Some pain was complained of over the hypogastrium on the morning after the operation, but this was relieved after a suppository of morphia, and did not return. From first to last no pain was complained of in the sacral region. On Sept. 1st (ten days later), Tait's perineorrhaphy with interrupted buried sutures was performed, the wound being afterwards sealed by celloidin. The patient made a perfect recovery without incident, and was discharged from the hospital on Sept. 19th.

CASE 2.—The patient was a married woman, aged forty-six years. She had had two miscarriages; the first occurred eight months after marriage nine years previous to examination, the pregnancy being ten weeks in duration, and the second took place sixteen months after marriage, with a pregnancy of two months. She had had one living child six years since. The confinement lasted for fifty hours, with rupture of the membranes twenty-four hours before the appearance of labor pains, and it was terminated by forceps and chloroform. Nineteen months after confinement she first noticed the descent of the uterus, which came down suddenly. In the following year, 1898, she was forced by pain to go to a women's hospital in Manchester, the uterus being then outside the vulva. The condition was treated by rest and pessaries

of various kinds. Since that time she had consulted various medical men and had been treated by some operation in another hospital, five weeks after which she had a ring pessary placed in the vagina. This came away on the following morning. After this she wore a pot pessary with straps for twelve months. This gave her great discomfort, and she said that the uterus came down by the side of it; she gave up using it in November, 1901. Then she wore a ring pessary for a while. Since April, 1902, there had been some bleeding which had dribbled from time to time, but never very much. Her menstruation had always been regular as to time, but the period now lasted a week. Before marriage it lasted for three days. Her last period commenced fourteen days since. Defecation was always regular until Christmas, 1901; since then she had had pain about the umbilicus before the act. Her condition at the time of examination was as follows: She was a healthy-looking woman, of medium height, and of sanguine complexion. The uterus lay between the thighs with the fundus looking towards the anus and the os looking upwards towards the pubes. The vaginal wall was entirely everted and dry, being covered by scaly epithelium. The os contained a small fleshy polypus, the pedicle of which sprang from just within the cervix. This was destroyed with the Paquelin cautery under cocaine. The fingers could be made to meet above the fundus, inclosing nothing but vaginal wall and peritoneum. There was no trace of the sacro-uterine ligaments to be detected by palpation. The perineum was short, and after reduction of the uterus there remained marked rectocele and cystocele. On August 25th, 1902, the operation described above was performed. When the uterus was drawn up by the traction ligatures to its full height its fundus projected one and a half inches beyond the level of the abdominal wall, showing the great relaxation of the vaginal walls. The Fallopian tubes were normal and the ovaries were slightly cystic. After the operation upon both sets of ligaments the abdomen was closed by triple suture and sealed. After operation there were still marked rectocele and cystocele. On the 26th urine was passed naturally. She vomited slightly after the anesthetic. There was no pain over the sacrum or elsewhere. The abdomen was supple. The temperature was normal until 6 a.m., when it rose to 99.6° F., falling to normal by 10 a.m. the same day. The respirations ranged from 24 to 30, and the pulse from 80 to 84. On the 31st the period began. Sharp pain was present before for about an hour, which was situated above the pubes. She lost more than for the last two or three years, during which time it had been scanty and unsatisfactory, coming on for a few days, ceasing, and returning again. She thought that this period was much more natural and felt better after it than she had done since the uterus came down. The period lasted for five days. On Sept. 8th the abdominal wound

was healed. Tait's perineorrhaphy with interrupted buried sutures was performed. The deeper tissues had so far retracted that the needle had to be carried close to the ascending pubic rami before sufficiently resistant material could be found for satisfactory reunion. Even when finished the space immediately in front of the sphincter did not seem to be sufficiently firm. The surface was sealed by celloidin. On the 9th urine was passed naturally at 4 a.m. On the 17th the abdominal sutures were removed. On Oct. 6th she returned home well and perfectly sound. There was some little delay after the last operation owing to the presence of pus in the tip of the vaginal flap, and it was feared that one of the buried sutures might be infected, but douches with creolin cleared this up, and no suture was extruded. The temperature throughout the whole stay in hospital never rose beyond 99.4°. The patient was shown at Stockport on Nov. 20th, 1902, and the result was confirmed by examination by three members of the Stockport Medical Society, one of whom was the president, and another the previous medical attendant, who had been present at her confinement, which he described.

Although the number of cases is but small, they are perhaps sufficient to show not only the practicability of the operation but the good results to be expected from it. Its claim to be considered a rational attempt to attack the problem of prolapsus uteri in a scientific manner will rest upon the due consideration by operators of the anatomical conditions present in these cases and their appreciation or otherwise of the various arguments I have endeavored to set forth.—*The Lancet*.

THE PROGNOSIS OF CHRONIC OTORRHEA.

BY H. O. REIK, M.D.,

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In this paper it is my object to point out the fact that, with proper care and thorough treatment, the cure of chronic suppurative otitis media is nothing like so hopeless a matter as many physicians seem to regard it, and, further, to call attention to some comparative recent work in otology which makes it possible to offer a more satisfactory prognosis than we have heretofore felt warranted in giving.

So much has been written in recent years about the serious

*Read before the Medical and Chirurgical Faculty of Maryland at the semi-annual meeting, held in Laurel, November 18th, 1902.

complications or sequelæ of otitis media that we might expect every physician in the land to be familiar with the necessity for treatment of every case of otorrhea and yet it is by no means an uncommon experience to hear from an intelligent patient that Dr. —, whom one would expect to know better, has said that it was useless or unnecessary to treat this diseased ear, or, perhaps worse, that "if you stop the discharge, it will only break out somewhere else." The old notion that a suppurating fistula was a good thing to have and a dangerous thing to suppress, has been generally abandoned as concerns the rest of the body. Why not for the ear? Surely there is not the slightest evidence that this organ was intended as a part of a sewerage system.

When considering the dangerous features complicating otitis media, we have long been accustomed to think of many possibilities, not to say probabilities, for the direct taxation of infection to the highly important neighboring structures. With these you are sufficiently well acquainted, and I need only mention mastoiditis, lateral sinus, thrombosis, meningitis, cerebral and cerebellar abscesses, and general septicopyemia. Recently we have learned that there are a large number of deaths, and, of course, a larger number of cases of illness, due to disease in more remote parts of the body, but which originated in purulent disease of the ear. It has been pointed out by very competent clinical observers, and proven by numerous autopsies, that in children especially many cases of broncho-pneumonia, and of gastro-enteritis can be traced to the ear as the source of infection, the pus having drained through the Eustachian tube into the pharynx, and thence by way of the esophagus or the bronchi, spread the infection over the intestines or the lungs, or having been transported from one point to another by the vascular system. It is to be remembered that in childhood the Eustachian tube is much more patulous than in adult life, and that it is perfectly possible for an inflamed tympanic cavity to evacuate its purulent contents through this channel, instead of rupturing the tympanic membrane and discharging from the auditory canal. Hence, in many of the autopsies referred to above, where the source of the fatal disease was found to have been in the ear, no ear trouble had been suspected during life. This emphasizes again, and very forcibly, the necessity for examining the ears in all cases of obscure inflammatory diseases of children.

Now, if we bear in mind that, in addition to this class of cases, the size of which has not yet been estimated, about one-half of all brain abscesses, fully as large a percentage of thromboses of the cerebral sinus, the vast majority of all meningeal affections, and nearly all cases of mastoiditis are due to neglected suppurating

ears, and consider further that to-day no reputable life insurance company will accept the risk involved in insuring an individual who is, or who has been within two years past, the victim of an otorrhea, we readily understand the importance of considering the prognosis in any given case of suppurative otitis media. It would be very interesting to consider also some of the hygienic problems occurring here. For instance, how often are these patients responsible for direct conveyance of septic poison to their associates? How many cases of sore throat, sore eyes, etc., arise from contact with schoolmates or playmates afflicted with running ears? We know that most of these chronic otorrheas show the presence of either staphylococci, streptococci, or pneumococci.

The prognosis of any disease necessarily involves some consideration of the different forms of treatment, if there be more than one applicable and in the present instance the conditions vary so widely in different cases, and the treatment to be adopted is consequently so different, that one finds it especially difficult here to give a prognosis in general terms.

Naturally, it is desirable to secure relief for our patients whenever possible, by non-operative measures, and it may be said as a general rule that every case of chronic suppurative otitis media should be carefully and conscientiously subjected to the simpler methods of treatment before resorting to surgery. By thorough cleansing of the auditory canal and tympanic cavity through the use of antiseptic irrigations or by the so-called dry method, employed frequently enough to keep the tympanum clean, a cure will result in more than 50 per cent. of all these cases, and with the aid of stronger antiseptic applications, astringent solutions, and caustics this percentage of cures by medicinal means can be materially increased.

Considerably less than half our cases, then, will call for some surgical treatment, either of minor or major degree, and it is to this class that I particularly direct your attention because of the improvements in the measures suggested and the method of their employment. Among the minor operations may be classed the removal of polyps and cauterization of granulation tissue in the tympanum to facilitate the beneficial effects of the remedies spoken of above. We know with practical certainty now that every case which resists this kind of treatment does so because the disease process has reached some inaccessible part of the middle ear or mastoid antrum, and hence arises the necessity for major surgical intervention.

In most instances of this kind it will be found that necrosis of the ossicles exists, and that ossiculectomy, the removal of one or more of these little bones with the remnants of the drum mem-

brane, will permit a cure through the improved opportunity for draining and cleansing the tympanum. While a delicate operation, this is a comparatively simple and safe one and results in a cure in about 50 per cent. of cases. By one means or another we shall thus have succeeded in curing from 75 to 80 per cent. of our cases of chronic suppurative otitis media. In the cases in which ossi-culectomy fails, or in which it does not seem applicable because there is necrosis of the walls of the tympanum or antrum, no good can be accomplished except by the so-called radical operation or mastoid exenteration. This operation consists in trephining through the mastoid cavity. The auricle, which has been detached as in the ordinary mastoid operation, is then sutured back in position, and the new cavity is lined with epidermis by grafting or by turning in flaps from cartilaginous wall of the canal. This operation has now been employed sufficiently long to enable us to draw safe conclusions as to its value, and various operators claim from 80 to 90 per cent. of cures in the cases treated.

Reviewing what I have said about the possibilities of the different forms of treatment, it will be seen that only from 2 to 5 per cent. of cases need be counted as at present incurable, and it seems reasonable to predict that as surgeons become more familiar with the technique of the radical operation even this small percentage will be decreased. In view, then, of the admittedly grave danger to the health and life of any person the subject of chronic otorrhea and of the almost certain curability of every case submitted to proper and persistent treatment, let us no longer be guilty of neglecting these cases.—*Maryland Medical Journal*.

THE TRAINING OF CHILDREN TO PREVENT NERVOUSNESS.—An admirable article on "How Not to Be Nervous," by Dr. Hugh T. Patrick, appears in the *Journal of American Medical Association* for February 7th. Though it presents no ideas that are strikingly new, it emphasizes the old ones in a most forceful and eloquent way. This article would do good missionary work if it could be distributed among the laity. What Dr. Patrick has to say of the relation of improper training during childhood to the causation of nervousness in later life is especially good. "Two capital errors in the training of children frequently come to my notice; errors that prepare the little unfortunate for later nervousness or fairly drive him into it. They are, first, leading the child into pleasures and duties beyond his years; second, magnifying his importance in the family and society. It is quite as

dangerous to give to children the pleasures of adults as to require of them the labors of the mature. That there is a physical basis for all intellectual processes seems sometimes to be forgotten. Successive groups of brain cells and fibres come into existence with the successive years, and before the birth of these tissues certain psychic functions may not naturally exist. To force mature functions from an immature organism is to violate the virginity of Nature, a crime daily committed in the home and in the school, to be expiated in the sick-room, sanitarium, or asylum. In the beginning the fault generally lies in a mixture of vanity and ignorance on the part of parents. They wish their children to excel in attainment, and they like to see them indulging in all the pleasures and excitements of our complex social existence. Later, the young person whips himself on to ruin. To instance only one disaster: the annual casualties following graduation from hot-house schools and colleges easily outnumber those of the whole disastrous camp life and battles of our late Spanish war. As regards the second error just mentioned, it has seemed to me that if deliberately planned and scrupulously executed, the bringing up of some children could not better promote what I venture to call centripetal development—development centreing in self. The child is not only made to be, but is made to know that he is, the focus of all domestic doings, the hub of the family wheel. Every sensation, perception, conception, and emotion is an event. The unlucky youngster develops with a distorted view of the relation of things. He sees enormously enlarged images of his tastes, his clothes, his pains, his likes, his aversions, and his talents. These proportions do not fit the facts of existence, and the unfortunate individual is as sure to be caught in some form of nervousness as is one to go astray in a labyrinth of grotesque mirrors. I must note one more point on prophylaxis of the neuroses in children, a point already lightly touched, and then we shall leave the little people, much as I should like to linger. In one form or another fear enters into the make-up of nearly every sort of nervousness. It paralyzes judgment, ambition, and the higher emotions. Childhood should be absolutely fearless; fearless for self and for the future. That the young should have no fear of man or God, no thought for the morrow, is natural and proper. It is natural and wholesome that the child should have no regard for his organs, no knowledge of hygienic rules, no conception of the significance of pain. When the parent makes the child a party to his apprehensions, confides his prescience of ills and communicates the ominous augury of bodily symptoms, he is assiduously rearing a

little hypochondriac who will live to condemn the parent who made him a burden to himself and a curse to others. Fear of the dark, of thunder and lightning, of animals, burglars, accidents, spirits, devils and death, is born of parental foolishness, and is always potentially the seed of later nervousness. Quite recently a physician who for many years has had at intervals typical and intense agoraphobia with fear of sudden death, told me with the utmost naivete that when a child he never could sleep alone. It seems never to have occurred to him that if he could not sleep alone it was because he was allowed to have such a fear, or quite as likely, because the parents carelessly or deliberately planted fear in his infant mind."—*Pediatrics*.

Special Selections

DERANGED UTERINE FUNCTIONS.

BY JAMES A. BLACK, M.D.

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It is safe to say that to the average physician, who is confronted almost daily with the ordinary cases of suppressed and deranged uterine function, no other class of cases is so uniformly disappointing in results and yields so sparing a return for the care and time devoted to their conduct.

Patients suffering from disorders of this nature are usually drawn from the middle walks of life, and, by reason of the pressure of household duties or the performance of the daily tasks incidental to their vocation, are entirely unable, in the slightest degree, to assist, by proper rest or procedure, the action of the administered remedy.

Many of these patients, too, suffer in silence for months, and even when forced by the extremity of their sufferings to the physician, shrink from relating a complete history of their condition and absolutely refuse to submit to an examination. Authoritative medical teaching and experience unite in forcing upon the attendant a most pessimistic view of his efforts in behalf of these sufferers under such conditions.

It is in this class of practice, where almost everything depends upon the remedy alone, that a peculiarly aggravating condition

of affairs exists. A very limited list of remedies of demonstrated value is presented for selection, and I believe I am not wide of the mark in saying that, in the hands of most practitioners, no remedy or combination of remedies hitherto in general use has been productive of anything but disappointment.

Some time ago my attention was drawn to Ergoapiol (Smith) as a combination of value in the treatment of a great variety of uterine disorders. Its exhibition in several cases in my hands yielded such happy results that I have used it repeatedly in a considerable variety of conditions, and with such uniformly good results that I am confirmed in the opinion that its introduction to the profession marks an era in modern therapeutics. In the treatment of irregular menstruation and attendant conditions I have found it superior to any other emmenagogue with which I am familiar, in the following important particulars:

1. It is prompt and certain in its action.
2. It is not nauseating and is not rejected by delicate stomachs.
3. It is absolutely innocuous.
4. It occasions no important after-effects.
5. It is convenient to dispense and administer.

The following clinical notes will afford a general idea of its action in a variety of cases:

CASE I.—Mrs. — came to me presenting the following symptoms incident to a delayed menstruation: Persistent headache of a neuralgic character; dull, aching pain in limbs and lumbar region; cramp-like pains in abdomen, and considerable nausea. The menstrual period was overdue seven days, but as yet there was no appearance of flow. Her periods had always been occasions of intense suffering, but had never before been delayed. I began the use of Ergoapiol (Smith), with some misgiving owing to the irritable condition of the stomach. One capsule every three hours was administered without any aggravation of the gastric distress. In twenty hours a normal menstruation was well under way; the flow was slightly increased over that observed on former occasions. The pains had subsided. Ergoapiol (Smith) was administered, one capsule three times a day, during the menstrual period, which terminated in five days. The patient was instructed to return for a quantity of the remedy several days before the next menstrual period. She did so, and, following directions, took one capsule three times a day for three days before expected menstruation. She subsequently reported that during the period—lasting five days—there had been practically no pain, and that the amount of flow was, as far as she could judge, normal.

CASE 2.—Miss —, aged thirty, had been a sufferer for years with dysmenorrhea. For about three years had suffered with leucorrhœa, particularly annoying after each menstrual period. Had undergone treatment at different times for the leucorrhœa and dysmenorrhea, but had never experienced permanent benefit. She had been obliged to spend the couple of days of each period in bed. She consulted me about one week before her period. Examination revealed a purulent discharge oozing from os cervix and a rather large uterus. There was no displacement. She was put upon Ergoapiol (Smith), one capsule three times a day. The onset occurred one day earlier than expected and was attended with considerable pain. The patient was, however, able to attend to her usual duties, a state of affairs such as had not been experienced for some years. At the onset of the flow Ergoapiol (Smith) was administered, one capsule every two hours. The effect was astonishing. In eight hours the pains had well-nigh subsided and there was practically no discomfort, except some pain in back.

CASE 3.—Miss —, aged twenty-one, had suffered for two years with irregular and painful menstruation, had commenced to menstruate when sixteen, menses being very scanty, but regular and accompanied with but slight degree of suffering. Was never of a very robust physique, but in the main healthy. When about nineteen, considerable nervous trouble was inaugurated by grieving over a great bereavement, and the menses became more and more painful. The anguish became such a horror to her that she frequently resorted to morphine, partly to allay pain and partly to procure sleep. Fortunately she had not, as yet, contracted the habit, but the tendency was undoubtedly in that direction. When first consulted by her, examination was not granted. Menses appearing shortly afterward, was called upon to afford relief. Flow was very scanty and clotted. There were sleeplessness, terrific headache, pain in back, constipation, etc. Ergoapiol (Smith) was administered, one capsule every three hours. Flow was considerably increased, there was a gradual lessening of all the suffering, and almost complete relief in twelve hours. This young woman has been placed upon Ergoapiol (Smith), one capsule twice daily for one week preceding appearance of menses, and has passed through several periods with very little suffering. An examination made recently showed a marked retroversion and very sensitive cervix. A properly applied supporter will doubtless work considerable benefit in her case, but it cannot be disputed that the compara-

tively easy menstruations occurring recently, in spite of the displacement, were due entirely to Ergoapiol.

CASE 4.—Miss —, aged eighteen, had always been regular in menstruating. Could get no history of any previous disorder within patient's knowledge. Contracted a heavy cold about time of menstrual epoch, and was much alarmed by non-appearance of flow. Discomfort was not marked. Ergoapiol (Smith), one capsule three times a day, was prescribed. Reported later that flow was established in twenty-four hours after treatment was commenced. The delay in this case was about four days.

CASE 5.—Mrs. — consulted me, giving the following history: Three months previously had had a profuse uterine hemorrhage occurring about the time of menstrual period; as she had for a number of years menstruated only at intervals of about six or seven weeks, the fact that menstruation had been suspended for six weeks before the date of trouble was not especially significant. The hemorrhage, which was at no time alarming, had continued for several days. Since that time there had been an almost constant wasting and at times a considerable flow. Her condition was practically invalid. Examination revealed a gaping os, a cervix exceedingly tender and abraded, and a large uterus. Before resorting to curettement it seemed advisable to try other measures. Ergoapial (Smith), one capsule every three hours, was prescribed. In about twenty-four hours there was a decided increase in the discharge, which consisted of clots and considerable debris. There were some pains, of a cramp-like nature. The discharge began to grow less in about four days and ceased entirely in one week. There was a marked improvement in general condition. Local treatment entirely removed the tenderness and abraded condition of cervix. Ergoapol (Smith) was administered several days before next menstrual period and resulted in a very satisfactory period. In this case it appears to me the remedy saved the patient the ordeal of curettement, acting as a prompt uterine stimulant. Her condition locally and generally has since steadily improved.

To prevent the nausea following the administration of the various opium preparations, and even of the drug itself, add cannabis indica to the dose, and follow by small and repeated doses until danger of nausea has passed.—*Medical Council.*