

## Technical and Bibliographic Notes / Notes techniques et bibliographiques

The Institute has attempted to obtain the best original copy available for scanning. Features of this copy which may be bibliographically unique, which may alter any of the images in the reproduction, or which may significantly change the usual method of scanning are checked below.

L'Institut a numérisé le meilleur exemplaire qu'il lui a été possible de se procurer. Les détails de cet exemplaire qui sont peut-être uniques du point de vue bibliographique, qui peuvent modifier une image reproduite, ou qui peuvent exiger une modification dans la méthode normale de numérisation sont indiqués ci-dessous.

- Coloured covers /  
Couverture de couleur
- Covers damaged /  
Couverture endommagée
- Covers restored and/or laminated /  
Couverture restaurée et/ou pelliculée
- Cover title missing /  
Le titre de couverture manque
- Coloured maps /  
Cartes géographiques en couleur
- Coloured ink (i.e. other than blue or black) /  
Encre de couleur (i.e. autre que bleue ou noire)
- Coloured plates and/or illustrations /  
Planches et/ou illustrations en couleur
- Bound with other material /  
Relié avec d'autres documents
- Only edition available /  
Seule édition disponible
- Tight binding may cause shadows or distortion  
along interior margin / La reliure serrée peut  
causer de l'ombre ou de la distorsion le long de la  
marge intérieure.
- Additional comments /  
Commentaires supplémentaires:

Continuous pagination.

- Coloured pages / Pages de couleur
- Pages damaged / Pages endommagées
- Pages restored and/or laminated /  
Pages restaurées et/ou pelliculées
- Pages discoloured, stained or foxed/  
Pages décolorées, tachetées ou piquées
- Pages detached / Pages détachées
- Showthrough / Transparence
- Quality of print varies /  
Qualité inégale de l'impression
- Includes supplementary materials /  
Comprend du matériel supplémentaire
- Blank leaves added during restorations may  
appear within the text. Whenever possible, these  
have been omitted from scanning / Il se peut que  
certaines pages blanches ajoutées lors d'une  
restauration apparaissent dans le texte, mais,  
lorsque cela était possible, ces pages n'ont pas  
été numérisées.

THE  
MONTREAL MEDICAL JOURNAL.

---

---

VOL. XVIII.

MARCH, 1890.

No. 9.

---

---

Original Communications.

ON ABDOMINAL SECTION IN TUBERCLE OF THE  
PERITONEUM AND UTERINE APPENDAGES.\*

BY WM. GARDNER, M.D.,  
Professor of Gynecology, McGill University.

It is foreign to my purpose, as, indeed, it would be outside my sphere of professional work and experience, to discuss generally the subject of peritoneal tuberculosis. I wish merely to present the report of five cases in which a variety of physical signs existed, but in all of which tuberculosis was present, and in each of which I did abdominal section. It must further be added that in none of these cases was the whole condition diagnosed by the ordinary medical attendant or by myself, except in *Case 2*, in which Dr. Armstrong suspected tubercular peritonitis. Ever since ovariectomy began the ascent to its present magnificent position as one of the great triumphs of surgery, the abdomen has occasionally been opened to take out an ovarian tumor when none has been found, but only an encysted collection of fluid, with more or less matting together of viscera and general studding of the peritoneum with tubercle. Such was my first case, reported to this Society and published in some detail in the *CANADA MEDICAL AND SURGICAL JOURNAL* for June 1885. I here give an abridged report, as it is the only one of the five in which fluid effusion in the belly-cavity existed.

S. B., aged 23, single, domestic servant, once pregnant, confined at the seventh month one year and a half ago, was sent

---

\* Read before the Medico-Chirurgical Society of Montreal, Feb. 7th, 1890.

to me by Dr. George Ross of this city for examination. The large belly had excited suspicion of pregnancy. Nothing definite as to duration of the enlargement. Her mistress thought about three or four months. It had rapidly increased. The symptoms were pain in the belly, absence of menses for four months, general weakness and wasting, poor appetite, and red tongue.

*Examination.*—Great enlargement of the belly; recent pink and old silvery striæ; well marked fluctuation and dull percussion over the whole anterior and antero-lateral abdomen. In the flanks and epigastrium, bowel note—the physical signs of ordinary ovarian cyst. The uterus projected forwards, lay just behind the pubes, and measured two inches. Fever of septic type, profuse sweating, and attacks of vomiting; a red blush and œdema of the centre of the front of the belly-wall soon appeared. The diagnosis was suppurating ovarian cyst, concurred in by Drs. Fenwick, Ross, Roddick, Shepherd and J. C. Cameron. Operation revealed encysted amber-colored fluid containing flakes, and in the last portions an obvious admixture of pus. No cyst-wall could be separated or identified. Drainage and irrigation. Immediate improvement maintained for ten days, then return of fever and all the bad symptoms. Fœtor of discharge from the tube. Sudden appearance of cough, with expectoration rapidly becoming purulent and then bloody. Death six weeks after operation. Autopsy by Dr. R. J. B. Howard revealed the following conditions:—

“ On opening abdomen a large globular mass presents, of the size of a man’s head, occupying false pelvis; this and the parietes are everywhere covered by a gray rough membrane about one-eighth of an inch thick. The transverse colon is firmly adherent to the upper surface, and is also bound tightly down to the liver. A collection of pus is found below and by the side of the spleen, and another, smaller, under left lobe of liver in middle line. The anterior peritoneal cavity is thus converted into a suppurating cyst, extending from liver down into true pelvis, nearly filled by the mass, which is found to consist of all the intestines, except the transverse colon, closely matted together by recent slight adhesions, which are studded with miliary

tubercles. The cyst wall is apparently much older than the inter-intestinal adhesions, and looks like an unhealthy granulating membrane. The walls and viscera of true pelvis are covered by the same membrane. The great omentum has quite disappeared; but no doubt had been spread out over the intestines, and formed part of the membrane covering them. All the abdominal viscera adherent to one another and to parietes. Liver fatty; contains a few gray granulations. Kidneys contain a few gray granulations. Lungs universally adherent; abundantly studded with gray granulations. Tonsils and pharynx—surface gray and sloughy-looking. No loss of substance; same appearance involves œsophagus opposite cricoid cartilage and about four inches lower down.”

*Case 2.*—E. S., aged 30, unmarried, seamstress, was admitted to the Montreal General Hospital under the care of Dr. Richard MacDonnell. She had been ill for some time with symptoms of acute peritonitis under the care of Dr. Geo. Armstrong. The onset was very sudden, and occurred about the time of a menstrual period, the symptoms being severe abdominal pain, vomiting and marked distension. At the end of three weeks, being still very ill, the patient came to hospital by the doctor's advice. After a time the more acute symptoms had somewhat subsided, but she continued to suffer much from abdominal pain, requiring morphia in full doses, from constipation, and daily vomiting of quantities of greenish fluid. I was then asked by Dr. MacDonnell to see her. The lower part of the abdomen was distended by a nodular, uneven, elastic, insensitive gurgling mass; not absolutely dull on percussion. By the vagina the uterus was somewhat fixed, and to the left and in front of it a firm mass could be felt. She was much emaciated. On the 14th of May, 1886, nine weeks from the onset of the symptoms, the abdomen was opened by median incision. Numerous parietal adhesions. After these were partially separated, a coil of intestine was found adherent over the surface of the firm mass. This proved to be the small intestines densely adherent to each other and to the parietes and whole pelvis. In many parts, but not universally, the peritoneum was studded with miliary tubercle.

Several coils of intestines were separated. A drainage tube was inserted and the abdomen closed by silkworm gut sutures. The patient was greatly relieved of pain, the bowels acted naturally and appetite returned for a time. On the 29th of May a foetid purulent discharge came from the drainage tube opening. On the 1st June this was bright yellow, and evidently foecal. This became more profuse, and continued till the end. She died exhausted about the end of June.

The relief of the pain and vomiting after the operation was most marked. My only regret in this case was that abdominal section was not done earlier. In the light of experience of similar cases on record the results might have been better.

*Case 3*—Is one of a different character. Mrs. K. was sent to me by Dr. Weagant of Dickinson's Landing, and entered my private hospital on the 31st December, 1888. Her age, 29; married five years; menses began at 13½, always free; two miscarriages during first eighteen months of married life. A full-term child in November 1885. Ever since then pelvic symptoms. Ten months after the birth an attack of pelvic inflammation. Since then repeated attacks of the same nature.

On admission the patient was very fat, but anæmic; constant pelvic pain; unable to walk or do anything without increase of pain; menstruation quite profuse and prolonged. Uterus partially fixed, very tender. Through the posterior cul-de-sac, fixed tender masses to be felt. On the 2nd January, '89, the abdomen was opened through at least one inch of fat on the parietes, and the uterine appendages removed. Both ovaries and tubes were densely adherent. The tubes were distended like sausages, occluded and filled with pus, their walls ulcerated on the interior and much thickened. The left ovary was expanded by a cyst to the size of a hen's egg. Careful examination by Dr. Finlay showed that the peritoneal surface of the tubes was thickly studded with miliary tubercles. None were detected on the intestines or parietal peritoneum, but as they were not suspected, they were not sought. The recovery was tedious, from the development of pelvic exudation, with pain and fever. The exudation was slowly absorbed, and the patient left for home ten

weeks from the date of operation. In a letter received yesterday from this patient, she tells me that until a recent attack of influenza her health had very much improved.

*Case 4.*—Miss L., aged 22, referred to my care by Dr. Ewing of Hawkesbury last May (1889). She gave a history of a tedious and severe attack of inflammation referred to abdomen and pelvis three years previous. Ever since she has been in poor health; an invalid most of the time.

On admission to hospital she was weak, had a rapid pulse, cold extremities, anorexia, dyspepsia, insomnia. The abdomen was hard, tender, somewhat distended, but without evidence of tumor or of liquid effusion. She complained of almost constant pain referred to the abdomen and pelvis. Uterus fixed; behind and to its sides fixed tender masses in the region of the uterine appendages. Her temperature on the evening of her admission was 102°. She was kept in bed under observation for a month, and treated generally by nutritive and general tonics, as well as by local measures, chiefly iodine to the roof of the vagina, but without avail. She continued to suffer and seemed to lose ground. No fever. On the 15th June, '89, the abdomen was opened. The parietal peritoneum was adherent to the omentum underneath, so that there was some difficulty in recognizing the line of adhesion and getting in to the cavity of the abdomen. When this was discovered, the omentum and intestines were found to be matted together. Everything within reach was studded thickly with tubercle. Nothing further was done. The belly was closed without drainage. The recovery from the operation was tedious, but free from important events of any kind. At the end of between three and four weeks she was taken home to die, as I then believed. I heard nothing more from her till October, when in a letter Dr. Ewing wrote me with a case of ovarian tumor he then sent me he said "our patient, Miss L., is very much better. She eats, digests, and sleeps well, and is able to walk and drive a great deal.

*Case 5* (still under observation) is that of a lady from Moosomin, referred by Dr. Rutledge of that town. She is 26 years old, married four years. Has been pregnant three times, twice

to full term, and had an early miscarriage on the 18th August last. She has always been somewhat delicate. No tubercular family history is to be had. She is of very fair complexion, transparent skin; very slight causes bring a deep blush to the cheeks. Menstruation has never at any time in her life been regular, the intervals much prolonged. Ever since the birth of her first child she has had pelvic symptoms. The present illness began at the time of the miscarriage, which was followed by symptoms of inflammation in the pelvis and fever. She has been an invalid ever since, suffering from pelvic and abdominal pain; menses at long intervals, but prolonged and profuse.

*Present symptoms.*—Pain in groins, especially left, extending to left loin and corresponding thigh, and occasionally across the abdomen. Is menstruating (the flow continued for nearly a fortnight). The morning action of the bowels preceded by pain in lower part of back. Tendency to slight evening rise of temperature and to perspiration after meals, rarely at night. Appetite and digestion good, although patient is thin. The abdomen is not distended, but slightly hard, scarcely tender. By the vagina, the uterus bulky, retroverted and fixed; the cervix deeply lacerated, much thickened and everted. To its left and behind, closely adherent, lay a mass, rounded and very tender, but somewhat movable.

The diagnosis was inflammatory, probably suppurative, disease of the appendages. She was kept in bed for six weeks and subjected to suitable local treatment, with some temporary improvement in symptoms. The pelvic mass on the left side seemed, however, to become larger and more tender. I therefore decided to open the abdomen. This was done on the 2nd Jan'y, 1890. Immediately on getting through the abdominal wall, which was not adherent to the contents of the belly, the condition was apparent. Everything that could be seen through the 1½-inch incision, and everything that could be felt, was thickly studded with miliary tubercle. No fluid effusion existed. The omentum lay adherent over the intestines, and was adherent to the brim of the pelvis. Beneath it everything was matted together. Nothing was further disturbed. The incision was immediately

closed. For the first few days she was a good deal distressed by belching and occasional vomiting, with some pain and fever. These symptoms subsided by the end of the second week; since then recovery has been rapid. Now she is up a good part of each day, eats well, sleeps well, and is practically free from pain. The temperature shows at times a tendency to slight rise. On the 25th February the patient left my hospital for a trip to the South. She was then entirely free from symptoms. Menstruation had not returned.

These five cases constitute the whole of my experience of operation in tuberculosis of the peritoneum and uterine appendages. It will be seen that they present considerable variety, so far as physical conditions are concerned. *Case No. 1*, with large fluid effusion, simulated ovarian tumor. In *Case 2*, while there was marked abdominal enlargement, there was no fluid effusion; the apparent tumor was composed of an aggregation of adherent intestines and omentum with disseminated tubercle. *Case 3* presented no evidences of adherent intestines or omentum. The adhesions existed only about the ovaries and distended Fallopian tubes. The evidences of tubercle existed only on the Fallopian tubes, or rather were discovered on these organs only after the abdomen was closed. I feel justified, however, in concluding that if tubercle existed on the general peritoneum, it was so to a very slight extent indeed. *Cases 4* and *5* are of the same character, and presented very similar histories and physical signs, namely, of inflammatory disease of the uterine appendages, with, however, much more than the usual amount of impaired nutrition.

I wish to draw especial attention to these last three. All, especially *Case 5*, following abortion, present histories which show that the first clear evidences of disease were those of pelvic inflammation. In each the physical signs of diseased appendages were unmistakably well marked. In *Case 3* the parts removed were typical examples of pyosalpinx. It is to be presumed that in *Cases 4* and *5*, if the operation had been completed to their extirpation, equally well-marked conditions would have been disclosed.

Certain prominent German physicians attribute great import-



ance to the pre-existence of a cheesy mass or degeneration somewhere in the body as the real parent of tubercles wherever they appear. The interest and importance of histories, such as those of the last three cases I have related, is, in this connection, surely most obvious. Presuming the theory to be well founded, the primary disease of the appendages was in these cases the parent of the tuberculosis of the peritoneum. In *Case 3* the tuberculous pus-distended Fallopian tubes may with some, and I think, good reason be regarded as the commencement of a process that would ultimately have extended to the general peritoneum. The whole subject is still obscure. Concurrent observation by the physician, the pathologist, and, I add with some confidence, the gynecologist will do much to elucidate the question. Meanwhile it may fairly be claimed that the evidence we already possess in support of the theory justifies us in claiming an additional argument for the early removal of the parent condition before opportunity for bringing forth its evil progeny.

I here anticipate a question with reference to *Cases 4* and *5*. Why not complete the operation as intended, and proceed to remove the diseased structures? I reply that in a considerable number of similarly incomplete, merely exploratory operations, the results have been good, some of the patients surviving with fairly good or very good health indefinitely. The extension of abdominal surgery to the removal of diseased uterine appendages is not yet, however, so old an operation as to justify us in speaking now with too great a degree of confidence. Further, completion of the operation in the presence of universal adhesions and general fusion of structures must have been a formidable procedure. The hemorrhage would have been such that the drainage-tube must have been a necessity under most unfavorable conditions from the presence of general tuberculosis of the structures involved. Prolonged suppuration from the track of the tube must almost of necessity have resulted.

Greig Smith has well remarked that the surgical treatment of tubercular peritonitis has been stumbled on by accident rather than carried out by design. The earlier cases were undertaken on a mistaken diagnosis of ovarian tumor or similar condition.

Many of these cases were found to recover, so that in recent years operation is often deliberately undertaken in cases suspected to be tubercular peritonitis.

Kuemmel of Hamburg has collected thirty such cases, beginning with one by Spencer Wells so long ago as 1862. Of these, only two died directly from the operation, while three died from general tuberculosis in from five to twelve months after operation. Altogether of Kuemmel's collection of cases, there were twenty-five cures of from nine months to twenty-five years duration. No doubt, however, many fatal cases are unreported.

Abdominal section for cases similar to *Cases 3, 4 and 5* of my collection are much more recent, because of the comparatively recent extension of abdominal surgery to the extirpation of diseased uterine appendages. But the result has been, to say the least, equally encouraging as in the cases of encysted collections of fluid simulating ovarian tumor. Mr. Greig Smith has recently suggested a modification of the treatment hitherto adopted in abdominal section for suppurative peritonitis. It consists in keeping the intestines floating in warm aseptic or antiseptic fluid for several days. The solution he prefers is an ounce of boryglyceride to a pint of hot water. This is run in through the drainage-tube several times a day, and kept there by corking the tube. So far he claims encouraging results.

I may here anticipate an objection of some weight that the diagnosis of my cases is not complete, as the bacillus of tubercle was not sought for. I regret this, and in future cases hope to remove this objection. At the same time the naked eye evidences taken with the symptoms were such as to leave little, if any, room for doubt as to the condition I claim to have been present. On this point, as on all others, I invite discussion, and a presentation of evidence of the existence of conditions which to the naked eye simulate genuine tubercle.

I venture to submit the following conclusions:—

1. The hitherto accepted universally fatal prognosis of tubercular peritonitis must, as a result of what we have learnt by abdominal section, be revised. It is certain that recovery has taken place in many cases after abdominal section and probably in others not so treated.

2. My cases 4, 5 and 6 afford some evidence in favor of the theory that a cheesy deposit, the result of suppuration, is the parent of tubercle wherever found.

3. In these cases the origin was in the suppurative disease of the appendages.

4. The early removal of such focus is urgent in certain subjects strongly predisposed to tubercle when other indications may not be strong enough to justify it.

5. Abdominal section in these, as in less serious conditions, has with proper precautions been as an operation recovered from in such a large proportion of cases as to amply justify its performance to clear up a doubtful case.

6. A mass of evidence has accumulated in favor of the beneficial effects of abdominal section in tubercular peritonitis such as it is difficult to resist.

---

## THE LOCAL ASPECTS OF THE PRESENT PNEUMONIA EPIDEMIC.

By J. L. IRWIN, M.D., C.M., CHICAGO. <sup>1</sup>

It is curious to note that, whilst reporters seem to have been scattered broadcast amongst the physicians of the city, by editors, and have created much nervousness and apprehension by their vivid depictions of the spread of the current disease, none of them seem to have sought information as to its domestic treatment whenever they found their medical quarry at his house, possibly nursing himself through an attack. Indeed, few medical men seem to have utterly escaped the grasp of *la grippe*; and those who have done so and have been interviewed, appear to have confined themselves to generalities rather than imparting to interrogators the gist of any special treatment. It is true that to do so has been denounced as unprofessional; but medical ethics vary very much with locality. *Why* it should be wrong for a physician in Chicago to give his views as to the medical treatment of a disease in the daily newspapers, and right for another to brag in a *medical summary* for December that "he does not dread diphtheria more than a bad cold," further setting forth his treatment of it with chlorate of potash and tincture of

veratrum, sublimed (?) sulphur and kerosene oil, is difficult to understand; or why papayotin, on the dictum of Jacobi and Dr. Baudry, should have suddenly sprung into fashion for dissolving the diphtheric membrane.

Another curious thing is the disinclination of the health commissioner to ever speak of the connection of influenza and pneumonia with cholera; whereas the fact that it has either preceded or followed that scourge of nations in nearly every instance is established by the report of the Registrar-General of England of January 30th, 1848. It broke out in Paris in 1847 (where 5,000 people died of la grippe) and spread to Madrid, England and Scotland. Fog and rain hung over London. The temperature ran from two to seven above normal, and in six weeks 11,339 people died in that city alone of influenza. It preceded "the black death" in the fourteenth century and the great plague in 1665; also the epidemic of cholera and typhoid fever in 1728-62-67-75-82-88, and 1803-31-42-43-46-47. No part of the world was exempt from it. It travelled from Russia to Ireland, thence to New York, and then swept the States from the lakes to the Gulf. In all cases, it seems to have been preceded by atmospheric vicissitudes, whether in the cold regions of Northern China or Siberian Steppes, or the heats of Peru, Central America and the Antilles. The Cape of Good Hope and Sydney were ravaged, and it did not even spare the English and Dutch ships upon the high seas. In France it was called "coqueluche" (a monk's cowl), from the fact that patients' heads were tied up in caps to exclude air. "Sheep-cough," "the frolicsome," were other names, and the "influence," from its supposed origination in the atmosphere. In Vienna it was believed to be due to an insect swallowed with water.

The original Parisian "grippe" developed symptoms of coryza, cough, sniffing, dyspnoea, aggravated by each paroxysm, fatigue of the limbs and general prostration. Even to the present day has come down the custom instituted on its appearance at Rome by Pope Pelagius II., in A.D. 590, when "the air being impregnated with foetid vapor, it was customary to ejaculate 'Dominus Tecum' if a friend sneezed."

The symptoms of modern influenza are well known—malaise, fever, irregular pulse, catarrh of the respiratory and gastrointestinal tracts, prostration, intense headache, pains in the limbs and distressed expression of the countenance. These, however, usually yield to rest and warmth, stimulating expectorants, tonics, and steam inhalations. The great danger of influenza seems to lie rather in its sequels than in the disease itself. It was formerly believed that influenza predisposed to galloping consumption. We know that it does to bronchitis and pneumonia, and our late daily Chicago reports show the deaths from the latter to be in the ratio of seven from pneumonia to one from influenza. But whether the latter is the genuine Muscovite article is still a matter of controversy.

It is incidentally noteworthy that a disease closely resembling influenza has proven very fatal to cats in this city of late, just as in former years it has attacked cattle, horses, sheep and poultry.

In the *Lancet* of Dec. 28th, 1889, Dr. Bernard O'Connor recommends that the patient be laid on his back and Weaver's powdered periodate crystals dropped in the nostrils and sniffed up. "This," he says, "is the most powerful antiseptic ever used; but it can be swallowed without risk." That paper also casually reports that dengue fever had appeared in a crushing-mill at Edinburgh, where oil-cakes is made from cotton-seed brought from Alexandria, Egypt. Whether this and the Russian influenza are one and the same disease is being warmly discussed by *Le Progrès Médical*, *La Gazette Médicale*, and other Parisian journals.

A curious book, now being revived in London, is Dr. Theophilus Thompson, F.R.S., on the "Annals of Influenza." In it (writing in 1851) he prophetically asserts that epidemics are produced by vegetable germs borne upon the wind, and calls especial attention to the disturbed condition of animal and vegetable life recorded during influenza years. Peculiar seasons recur in cycles: these are associated with recurring developments in the lower forms of life and consequent disordered condition of the health of man. "Is it unreasonable," he asks, "to

imagine that some fluctuations in the health of man may have reference to the stage in the condition of some of the despised and even invisible classes of the lower creation?" Whether or no, those who help to put together the puzzle of life, and show the exact relations existing between the germs of disease and the environments which determine their growth and distinction, will be the world's benefactors. It is noteworthy that heavy fogs are usually present in influenza epidemics.

Amongst the London physicians who have written this month, Dr. W. Gordon Hogg pins his faith to antipyrine and aconite to relieve muscular pains, with iron and bromide of quinine. He finds spray and inhalations unsuccessful, and that patients "prefer to cough" rather than take opiates. He keeps the head and back of the neck wrapped up in a warm shawl fastened under the chin.

Dr. Horace Dobell says, in the *British Medical Journal*, that he trusts to an inhalation of creosote  $\mathfrak{5i}$ , olei caryph.  $\mathfrak{5i}$ , olei eucalypt. glob.  $\mathfrak{3i}$ , tr. camph. co.  $\mathfrak{3ii}$ ; a teaspoonful in boiling water to be inhaled for fifteen minutes and repeated every two hours, during which interval gargle with hot water. After the first inhalation a febrifuge of sp. camph., sp. æth. nit., tr. quin. amm.; with gr. v of antifebrin every hour till the temperature falls to 100°F.

The *Boston Medical and Surgical Journal* points out the importance of observation bearing upon the contagiousness of influenza, and upon relapse, recurrence, remission and second attacks, and advances the theory that the poison is a microphyte multiplying in the air and travelling against the course of the winds. It also notes (Jan. 2nd, 1890) that a case occurred in the middle of December on a steamer in the midst of the Pacific Ocean, and that the disease had developed in Boston before it was reported in London. It also seems that the American squadron picked it up in crossing the Atlantic, and that the *Chicago* alone had 180 cases of the disease on board on January 17th, 1890. The *Record's* account of the treatment at the New York Dispensary shows that it consists of calomel, followed by 10 gr. Dover powder and 10 gr. quinine, morphine, bella-

donna, camphor and quinine being given if the catarrhal symptoms become marked, expectorants where bronchitis is prominent, and antipyrine and whiskey for frontal headache.

It now becomes necessary to consider for a while the nature of that catarrhal pneumonia apt to occur after an attack of infectious diseases, combined with bronchial catarrh. Anything which develops the latter favors the genesis of the former; but the extremes of life—childhood and old age—are the most susceptible. After the symptoms of the disease are fairly defined, the bronchial cough ceases to occur in long paroxysms, the patient becomes restless and capricious, the breathing becomes superficial, and the patient becomes drowsy and apathetic. Jürgensen, of Tübingen, finds the disease in the middle-aged chiefly in connection with diphtheria, but less liable to develop rapidly than the pneumonia set up by inhaling irritating gases, in which case dissection shows that the lung has simply collapsed. The disease has no regular type of fever. In the event of recovery, the lungs, heart and intestines appear to become peculiarly vulnerable to other diseases; the mortality has varied from 48 to 66 per cent. of those seized. Virchow first wrote on pneumonia from embolism: that is, the migration of solid bodies into the pulmonary artery, such as blood-clots which have originated in the general circulation and found their way to the right side of the heart, closing the artery and arresting the circulation leading to the lung. Then supervenes difficulty of breathing, as the interchange of gases stops within the disturbed lung, occasional fever, and chills. The local symptoms are: the expectoration of blood and tenacious mucus, cough and pain in the side, and physical signs of consolidation. The prognosis generally depends more upon the primary disease than the accident of embolism; but is generally unfavorable, except the healing force of nature join to aid the physician. It is curious that external violence does not appear to excite pneumonia, but grains of wheat or beards of barley frequently set it up in farm hands by finding their way into the bronchi, when gangrene of the lung is apt to supervene, or the breathing into the air-vesicles of the secretions of the bronchial tubes in diphtheria and bronchitis.

Pneumonia is a not uncommon complication in cases of acute rheumatism, albuminuria, and phthisis.

Monsieur H. Huchard, writing to the *Revue de Chim. et de Therap.*, speaks of nervous prostration as being the chief clinical characteristic of severe cases of influenza, requiring for its treatment quinine, alcohol, and, in bad cases, even injections of caffein and ether. Quinine, he says, is indicated on account of the markedly remittent type of fever, and to moderate the evening exacerbation it suffices to give a full dose (5 to 15 grains) of the sulphate or hydrobromate in the morning. Smaller doses more frequently taken are useful for their tonic rather than their antiseptic effect. In the neuralgic or rheumatoid form of influenza antipyrine (15 grains) combined with bicarbonate of soda ( $7\frac{1}{2}$  grains) is recommended by Mons. Huchard to be taken every four hours; or, instead of antipyrine, phenacetine or salol 7 grains. Influenza often assumes a broncho-pulmonary form, and in certain cases is very grave. In the epidemic of la grippe in 1886, recorded by M. Mentrier, the pneumonia forms were very asthenic. In such cases tonics, milk, alcohol, and, in fact, general restorative measures are indicated rather than local appliances to the chest. If the dyspnoea becomes severe and the condition termed "pulmonary paralysis" ensues, then strychnia is of value; or in case of impending asphyxia, venesection; but when asthenia itself threatens life, there should be no hesitation in resorting to hypodermic injections of ether and especially of caffein. For the gastro-intestinal form, mild aperients, ipecacuanha and the use of salicylates of bismuth or of magnesia, naphthol or iodoform to promote intestinal antiseptics are indicated.

In this country, exalgine, antipyrine, phenacetine, antifebrine and other comparatively new remedies have been tried with more or less success, but the fact remains that prescribing for pneumonia is no more an exact science than any other branch of medicine. We can only hope that change of weather will mitigate the severity of the outbreak of influenza, and that a few days of equable atmosphere and febrifuge treatment will pull a patient through the malady without leaving him prostrated or subject to the more serious trouble of lung, chest and throat



complaints. Meanwhile let every American practitioner do his best and record his experiences promptly for the public weal, as his fellows at Vienna, Paris and London have already sought to do. Every case will vary somewhat in its symptomatology, and according to its characteristics the remedies exhibited must be varied alike in nature and quantity, and close watch kept to prevent any epidemic analagous to those which history tells us have already appeared in the train of similar troubles.

---

## A CASE OF ATAXIA IN A CHILD TWELVE YEARS OF AGE.

By A. D. BLACKADER, B.A., M.D.,

Instructor in Diseases of Children, McGill University; Assistant Physician, Montreal General Hospital.

William Jacotel, aged 12 years, is the second of a family of ten children, of whom seven are now dead. Four of these died during an epidemic of diphtheria in 1885: the eldest, a lad of 10 years; the fourth, a lad of 5 years; the fifth, a lad of nearly 4 years; and the sixth, of a little more than 2 years. All of these were said to have been in good health, strong and active, before attacked by diphtheria. The seventh, a child of 3 years, died six months ago from scarlet fever. The third, an infant of nine months, is said to have succumbed to an attack of erysipelas in 1879. And this summer, the youngest, an infant two months old, was carried off by diarrhoea. The three survivors are William, of whom we are now speaking, a girl of nearly 4 years, and an infant 16 months old. Both the younger children are at present in good health, with no impairment of the knee-jerk, and no apparent loss of power in the lower limbs.

Both father and mother are said to be in fair health at present. On neither side is there any history obtainable of any relative who suffered from an impairment of gait due to nervous disease. They all appear to have reached a good old age. There is no history either of any special neurosis, syphilis, or tuberculosis. The father and mother are not blood relatives. The father occasionally indulges in alcohol to excess.

William is said to have been quiet as a baby; was nursed till

the tenth month, but was late over teething. There is no history of any convulsions, but as an infant of two years he had a fall, cutting the front of his forehead. This has left a distinct scar involving the bone, still quite discernible on the top of the forehead, a little to the right of the median line. Since the age of five years he has suffered severely from headaches resembling those of migraine. They are described as lasting three or four hours, and as being generally on the same side of the head as the scar; they were usually associated with vomiting, and passed off during a night's sleep. They recurred somewhat regularly three or four times a month, but were induced by any excitement. Although still recurring occasionally, they are much less severe than formerly. The first distinct symptom of the present illness was noticed six years ago as an unsteadiness in his gait, producing occasional falls, and the lad was in consequence pronounced, by a physician who saw him, to be suffering from St. Vitus's dance. This weakness and staggering gait have gradually become worse, and for this he was brought to the outpatient department of the Montreal General Hospital last June. The strictest inquiry does not elicit any history of true lightning pains. Two or three years ago his mother first noticed some alteration in his speech, and this also has gradually become more marked.

At present he is a fairly-nourished lad, four feet five inches tall, weighs eighty-five pounds, with distinct talipes equinus in both feet and slight curvature in the spine. There is a well-marked ataxic gait. In walking, the body sways from side to side, the legs are widely separated, and the feet are thrown forward. On standing the feet are kept much apart. If placed together there is much swaying of the body, which is only slightly increased by closing the eyes. A very fair attempt is made at walking backward. There is also distinct ataxia in the upper extremities, though much less marked than in the lower. If asked to touch his nose or tip of the ear with his finger quickly, he is generally an inch or two at fault; but he makes a fair attempt at picking up a pin, even with his eyes closed. There is complete absence of patellar reflex, but the cutaneous reflexes

are only slightly diminished. There is no muscular atrophy, and no spastic rigidity. Speech is distinctly jerky, with an abrupt pause between the several syllables, and occasionally elision of the last consonant. This is much less marked in reading than in speaking. There are no abdominal or thoracic symptoms; urine is normal; bowels regularly moved daily; sleep generally quiet; no nocturnal enuresis, but his mother states that he takes longer to pass his urine now than formerly. Pulse, while standing, 84,—regular. Intelligence unimpaired.

The following is the report of an examination of the eyes by Dr. Stirling: "Vision normal; accommodation active; pupils even, oscillating thræe mm. Color vision normal; field free; fundus, slight posterior staphyloma, vessels slightly smaller than usual; no nystagmus, but some slight ataxia of muscles of eyeball."

Dr. Wharton Sinkler (*Med. News*, July 4, 1885) relates a very similar case, in which there appears to have been also some interference with the urinary centre.

During the past few years the disease known as Friedreich's ataxia has been fully recognized by the profession, and instances of its occurrence have been recorded from time to time in the medical journals, so that the salient points of difference between it and Duchenne's tabes dorsalis are now generally acknowledged. "Transitional cases," as Dr. Ormerod calls them, are, however, always interesting, and those mentioned by him in his "Critical Digest" (*Brain*, vol. vii., pp. 111) are still amongst the most noteworthy. Amongst these is the case observed by Carré, in which there was well-marked heredity and an affection of speech, yet the disease began with numbness in the feet and legs, at the age of 22 years, and diplopia was observed. In the three cases reported by Dreschfield there was also distinct heredity, yet they resemble the classical type in the age at which the symptoms appeared and in the neuralgic pains with which the onset was marked. In Powers's case vomiting appeared among the early symptoms.

In my own case the symptoms point to disease confined almost entirely to the posterior columns, but involving also the medulla.

Cerebellar disease would appear to be excluded by the history of the case, the absence of occipital pain, the absence of optic neuritis, the absence of the patellar reflex, and the presence of the ataxia in the upper extremities. The age of the lad (six years) when symptoms of ataxia were first noticed, the impairment of speech, the absence of lightning pains, of any alteration in the pupillary reflexes, would oppose its being classed as a case of true tabes.

The possibility of insular sclerosis, occurring with somewhat similar symptoms, must not be forgotten; but in my patient this appears to be excluded by the history of the case, by the absence of any paresis or spastic rigidity, and by the absence of any eye symptoms. It differs from most of the recorded cases of Friedreich's disease, in the absence of any other known case occurring in the family, in the history of previous migraine, and in the presence of symptoms indicating some paresis of the bladder.

## Retrospect Department.

### QUARTERLY RETROSPECT OF SURGERY.

BY FRANCIS J. SHEPHERD, M.D., C.M., M.R.C.S., ENG.

Surgeon to the Montreal General Hospital; Professor of Anatomy and Lecturer on Operative Surgery, McGill University.

*Operative Treatment of Enlarged Prostate.*—The treatment of enlargement of the prostate is a problem which constantly presents itself to every surgeon, and so far its solution is not the most satisfactory. In a certain proportion of cases the judicious use of the catheter yields fairly good results, but in many of these cases a day comes when even the friendly catheter cannot be depended upon, and something else has to be tried. Cystitis or other accident may intervene, and to obtain relief operative measures are undertaken. The simplest operation is perineal section, and marked relief is often afforded, but very frequently this relief is only temporary. When the cause of the obstruction to the outflow of urine is hypertrophy of the prostate, no procedure which does not aim at removing this cause will prove of any permanent benefit. At the meeting of the British Medical Association held at Leeds in August last, Mr. McGill opened a discussion on "The Retention of Urine from Prostatic Enlargement" (*British Medical Journal*, Oct. 19, 1889). His paper was based on twenty-four operations of prostatectomy through a suprapubic incision, performed by various surgeons at the Leeds Infirmary. He submitted and discussed the following propositions:—

- (1) The prostatic enlargements which give rise to urinary symptoms are intravesical and not rectal.
- (2) The retention is caused by a valve-like action of the intravesical prostate, the urethral orifice being closed more or less completely by the contraction of the bladder and its contents.
- (3) That in many cases self-catheterism is the only treatment required.
- (4) When the catheter treatment fails, or is unavailable, more radical measures are necessary. He states his belief that a large proportion of cases treated by catheter sooner or later

break down, the urine becomes ammoniacal, the desire to micturate continues, and the catheter only relieves for a few minutes at a time. The greatest care does not always prevent this result, nor does the greatest carelessness always induce it. In other cases the patient cannot be taught to pass the catheter himself, and the constant attendance of a surgeon is impracticable. Now the radical measures recommended by McGill are as follows :

(5) Drain the bladder thoroughly for a time and permanently remove the cause of obstruction ; the intravesical prostatic growth must be removed.

(6) These two indications are best fulfilled by a supra-pubic rather than by a urethral or perineal operation. Out of 24 cases operated on in the Leeds Infirmary, 8 remain permanently well. There were 4 deaths—1 due to shock, 2 due to shock and hemorrhage, and 1 to retro-pubic suppuration. All the cases were men between 60 and 70 ; almost all were in a bad state of health, and could not have lived long unless relieved. In seven cases the operation was undertaken for the removal of stone, and prostatectomy was incidental, excluding these and the four cases of death, also one lost sight of and two still under observation, leaves ten still to be accounted for. Eight of these remain permanently well, one only having to use the catheter occasionally ; in one case the operation was not satisfactorily completed and no relief was obtained ; in the tenth case relief was for a time obtained, but he relapsed and died ten months after operation.

In the discussion which followed, Mr. Bruce Clarke advocated first making a perineal incision and examining the bladder, and seeing what needed to be done, and afterwards to perform supra-pubic cystotomy.

Dr. Kummell of Hamburg has also written on this subject. He reports six cases operated on ; the operations were done on severe cases, in which the various ordinary means had been used a long time. He had recourse to suprapubic cystotomy. He extirpated not only the median lobe, but all portions of the prostate projecting into the bladder. He operates by opening the bladder by a suprapubic incision ; uses sponges and iodoform gauze for

plugging. The projecting parts of the prostate he seizes with a forceps, burns off what impedes the passage with the galvano-cautery loop or Paquelin's cautery. If necessary the neck of the bladder is dilated and as large a catheter as possible introduced; in a few days it is possible to introduce the thickest catheters. By this time suture of the bladder can be undertaken. The patient should be got about as soon as possible to avoid the dreaded hypostatic pneumonia. He uses continuous catgut suture and removes catheter in eighteen days. One out of the six cases died of broncho-pneumonia the eighteenth day after operation. In his cases Kummell does not claim that the results were so perfect that the after use of the catheter was not needed, but the patient's condition was so serious that in many cases the operation was a life-saving one. He recommends this procedure in those cases where there is nothing to lose, but everything to gain.—(*Eighteenth German Surgical Congress. Centralblatt f. Chir.*, No. 29, 1889, and *Annals of Surgery*, Dec. 1889.)

#### SURGERY OF THE KIDNEY.

*Removal of Kidney.*—Schede of Hamburg, at a meeting held in July, 1888, read a paper on twenty cases of extirpation of the kidney. Eleven cases were cured, two improved, and seven died within the first few days after operation, some being operated on under the most unfavorable circumstances. Schede's mortality is only 35 per cent. This is an improvement on that given by Gross in 1885 of 44.6 per cent. Schede uses the lumbar incision, and thinks that the future mortality in this operation will be much lessened.—(*Deutsch. Medicin. Woch.*, No. 52, 1888.)

*Nephrectomy in a case of Horse-shoe Kidney where one-half was affected with Hydronephrosis.*—In the *Annales des Maladies des Organes Génito-Urinaires* for June last, M. Vignard gives a translation of Prof. Socin's (Basle) paper on the above. A woman, 47 years of age, was admitted into the hospital with symptoms of intermittent hydronephrosis of the right side, severe colic, and vomiting. The diagnosis was not easily made out, for Professor Socin was not clear whether the tumor might not be

connected with the mesentery or the pancreas. However, the tumor was aspirated and about 500 cubic centimetres of urinous fluid removed. A urinary fistula remained, which transmitted purulent urine, while the bladder contained healthy urine. A further operation was undertaken in May 1888, at the patient's request. The abdominal incision was made to the outer side of the rectus muscle and the vascular pedicle of the right kidney ligatured, and it only remained to free the lower end of the kidney when it was discovered that it was prolonged by a sort of bridge four centimetres wide across the vena cava and aorta to the opposite kidney, forming thus a horse-shoe kidney. The isthmus was found to be only slightly connected with the front of the vessels, and he therefore divided it by means of a thermo-cautery. Five ligatures proved to be enough to arrest all hemorrhage from the divided surface, the capsule was sewed as a flap over the cauterized surface, and the operation was completed by a lumbo-abdominal drain. The progress was excellent. The urine was albuminous and bloody for a few days only. The patient went out well twenty-five days after the operation. She was seen four months later in good health, with good color, and able to work.

Braun of Heidelberg has reported a somewhat similar case, and the fact that a horse-shoe kidney existed was only made out during the operation for pyonephrosis. The adhesions between the vena cava and the isthmus were so close that hemorrhage occurred, and the patient died at the finish of the operation. Braun, therefore, came to the conclusion that the existence of a horse-shoe kidney was an absolute contra-indication to operation. Socin's case, however, shows this conclusion to be incorrect. The diagnosis is impossible before operation, and the surgeon must treat the case as occasion demands.—(*London Medical Recorder*, Aug. 1889.)

Horse-shoe kidney is comparatively rare. According to Prof. Roth of Basle it occurred five times in 1630 autopsies (1 in 326). I have seen three in my experience, which is not inconsiderable. Normally they have no attachment to the vena cava and aorta, and in Braun's case the adhesions must have



been due to the inflammatory action produced by the pyonephrosis. No doubt in these cases the operation is almost necessarily a fatal one, but in cases such as Socin's there is no good reason why success should not follow operation. In some cases the isthmus is much longer and thicker than others. Prof. W. Gruber describes two cases in which the isthmus was membranous only. Anomalies of kidneys should be familiar to surgeons. A not uncommon one is the displacement of one or both organs. I saw a case last year where the left kidney was situated between the two common iliac arteries. The hilus was anterior and the kidney was disc-shaped. It must be also borne in mind that the kidney may be single. I have seen only one example of this anomaly.

*Renal Surgery at the British Medical Association.*—At the last meeting of the British Medical Association a most interesting discussion took place on renal surgery (*Brit. Medical Jour.*, Nov. 16th, 1889). It was opened by Mr. Henry Morris, who drew attention to the following points: (1) The various ways in which renal calculi are imbedded in the kidney require special precautions whilst operating. (Mr. Morris is of opinion that nothing short of a digital exploration of the pelvis and calyces of the kidney will suffice to discover stone in some cases.)

(2) Tubercle of the kidney, as well as suppurating foci due to other causes, may give rise to the same tactile sensations as small calculi.

(3) Tubercular disease of the prostate is a source of fallacy in diagnosing renal calculi. It is well known that pain may be transferred to the renal region from disease of the lower urinary tract; and if there be, in addition, a small amount of pus and blood in the urine, and no cystitis, the diagnosis is much complicated.

(4) Nephrectomy is of very doubtful value in advanced tubercular renal disease.

(5) Lumbar nephrectomy is the proper treatment for advanced hydronephrosis, and for large collections of fluid behind the peritoneum, the result of lacerated kidney.

(6) Nephrorrhaphy for movable kidney is of great service.

(7) The changes which the perinephric tissue undergoes, under long continued irritation, sometimes render the search for the kidney very tedious, and, maybe, ineffectual.

Mr. Bennett May had operated on 15 patients for stone or suspected stone—12 males and 3 females. In 13 cases he found a stone and in 2 he did not. In fully half the cases the stone was fixed in the parenchyma of the kidney. These stones, mostly of slow growth, are circular or pyramidal in shape, not branched, and occur in young males. The kidney remains perfectly healthy even in a late stage of the disease. The prominent symptom in these cases is pain, and the main diagnostic test is pain on deep local pressure beneath the last rib. Pus is commonly absent, and traces of blood may be found with the microscope after exercise. The stones are difficult to find, but when removed, give most perfect results. Should the surgeon fail to find the stone by acupuncture, then the kidney should be cut into and explored with the finger and sound. Stones in the pelvis of the kidney commonly grow much more quickly and to a larger size. Pus appears early and is a prominent symptom, and the kidney soon undergoes structural changes, ending in pyonephrosis. These stones are usually easy to find, and the recovery is apt to be imperfect.

Mr. David Newman of Glasgow contrasted the results of nephro-lithotomies with or without suppuration of the kidney. Of the former, of 60 cases, 34 recovered and 26 died (43.3 per cent.); of the latter, where there was no suppuration, of 42 cases not one died. This indicates the importance of early diagnosis. In cases of hemorrhage, catheterization of the ureters and estimation of quantity of albumen and hæmoglobin in the urine may aid one in determining the seat of the hemorrhage and ascertaining whether the disease is confined to one kidney. Mr. Newman said that in renal surgery, the condition with which he was most familiar was movable kidney. Out of 27 cases he had met with in private and hospital practice only seven needed operative interference. In the great majority of cases the application of a well-fitting elastic bandage with an air pad was sufficient. When performing nephrorrhaphy, Mr. Newman, in addi-

tion to stitching the kidney to the abdominal parietes, splits the fibrous capsule and separates it from the surface of the kidney, as it is of little use to stitch the adipose capsule, because it is so loose.

Mr. Lawson Tait said his first contribution to renal surgery was made in July 1884, though his first operation on the kidney was performed in April 1874. He gave a list of seventy-four operations performed by himself on the kidney with six deaths. The cases were as follows :

Simple exploratory incisions, 4.

Nephrotomy, 44 cases with one death.

Nephrectomy, 22 cases with four deaths.

Incomplete operation, 1 case with one death.

Nephrorrhaphy, 3 cases with no deaths.

Among the nephrotomies 14 were for stone, and of these one died. He strongly advocated preliminary nephrotomy in doubtful cases ; it will save many organs from removal, and make a subsequent nephrectomy far less risky. Mr. Tait strongly condemns the operation of nephrorrhaphy and will have nothing more to do with it. One of the three patients operated on has subsequently died under circumstances for which he thinks the operation might be blamed. He does not think it matters much how the kidney is reached. Mr. Tait has several times opened the abdomen expecting to find ovarian tumors, and has found soft cancers of the kidney. The conclusions he draws from his experience are that all tumors of the kidney, all suppurating kidneys, and all kidneys with persistent, incurable, and unbearable pain in them, should be exposed by incision, laid open and thoroughly explored by the finger-tip. Stones may then be removed, abscesses drained, and hydatid or cystic growths removed with trifling risk. He also said that mere exploration in some cases of tumors leads in a mysterious way to a cure.

Mr. Bruce Clark related an interesting case where, failing to find stone by needle puncture, he closed the wound. The patient, not being relieved, returned again. The kidney was again explored, this time by the finger, but no stone found, so the kidney was excised, and on examining it a small, sharp stone, the size

of a pea, was found hidden away in one of the recesses of the organ. He advocated the removal of large diseased kidneys by the anterior incision.

Mr. Kendall Franks of Dublin called attention to a class of cases which were not uncommon, viz., those in which the diagnosis of renal calculus was almost certain, and in which the symptoms clearly indicated the affected side, and yet in which, when the kidney was exposed, the most careful digital manipulation and the most systematic exploration with a long needle failed to detect the presence of a stone. In such cases formerly the wound was closed, or, as Mr. Morris had done, the organ was excised. Mr. Franks advocated incising the kidney *in situ* and searching for the stone systematically with the finger. Mr. Franks laid stress upon the importance of leaving the wound in the kidney to granulate without using any means to close it. He advocated excision in cases of tubercular disease of the kidney.

*Nephro-Lithotomy.*—Mr. H. A. Jacobson, in some clinical remarks delivered at Guy's Hospital (*British Medical Journal*, Jan. 18, 1890) on the *Symptoms and Conditions which justify Nephro-Lithotomy*, makes remarks on the following symptoms: (1) Continued hæmaturia or passage of blood and pus; (2) pain or tenderness in the loin and elsewhere; (3) points connected with previous history, *e.g.*, habitat, habits, lithiasis, oxaluria, passage of previous stones, renal colic; (4) frequency of micturition; (5) absence of any condition in the rest of the urino-genital tract to explain the symptoms; (6) failure of previous treatment. The chief conditions simulating renal calculus are: (1) Lithiasis and to a less degree oxaluria; (2) tubercular kidney; (3) pyelitis, not tubercular; (4) movable and (5) aching kidney, especially if associated with (6) neuralgic conditions; (7) disease in organs contiguous to the kidney; (8) disease of lumbar spine; (9) interstitial shrinking nephritis; (10) malignant disease of the kidney, especially of the pelvis, and malignant disease around the 12th dorsal nerve (a case is reported). The chief practical points in the performance of nephro-lithotomy he considers to be as follows:

(1) To count the ribs; the last rib may be rudimentary and the 11th mistaken for it.

(2) To make a sufficiently free incision.

(3) To pack away with sponges the colon, which is often troublesomely distended in these cases with flatus.

(4) If a stone cannot be felt in pelvis or after palpation anteriorly or posteriorly, the kidney should be drawn out as far as possible and carefully examined.

(5) In puncturing the kidney, the calyces should be opened systematically.

(6) When palpation and acupuncture fail to find the stone, then the kidney should be opened and carefully sounded.

(7) Hemorrhage from kidney is easily arrested by careful, firm pressure.

(8) Sources of difficulty in finding a stone are (a) mobile kidney, (b) stone in anterior part, and (c) stone in a sacculated kidney.

(9) In large suppurating kidney first incise freely and drain kidney before performing nephrectomy.

I cannot agree with Mr. Jacobson as to the method of exploring the kidney, and my experience has been that in those cases where the stone is small and hidden away in one of the calyces, there is often little chance of its being found either by palpation, needling, or the introduction of a sound. A free incision into the kidney and exploration with the finger is the only certain method of finding these calculi. I have several times cut down on the kidney for suspected calculus, palpated, needled and used the sound, yet failed to find the stone; but in the last case I made a free incision into the posterior border of the kidney, introduced my finger, and soon came across a small stone encapsuled at upper end of organ. I have never had any difficulty in arresting hemorrhage, and have never found it necessary to plug the wound with gauze; pressure with sponge or finger easily arrests any hemorrhage, even when it is very free. I have no doubt at all that many of the so-called cases of nephralgia which have been operated on have been cases of stone undiscovered, because not thoroughly searched for with the finger through a sufficiently large incision.

Dr. E. L. Keyes of New York recently read a most interesting

paper on *Nephro-Lithotomy* before the Medical Society of the State of New York (*N. Y. Medical Record*, Feb. 8th, 1890). His experience extends to six cases of actual or suspected stone. In one case the kidney was filled by a large-branched calculus weighing two ounces, which was extracted in pieces with great difficulty; there was much hemorrhage, which was arrested by hot water. Dr. Keyes' conclusions are as follows:

(1) The posterior exploratory incision upon a kidney suspected to contain stone is devoid of any serious danger when performed with proper care, and should be resorted to more often than it is.

(2) The best incision is the transverse, below the 12th rib, with as much of a liberating incision downwards along the edge of the quadratus as may be required to gain ample room.

(3) The kidney may be freely cut into and rudely lacerated with the finger, when the stone calls for it, without producing any hemorrhage which hot irrigations will not control.

(4) It is better, in the case of a large branching calculus, to break it up and extract it in fragments rather than attempt to remove it entire.

(5) So little danger attaches to the posterior incision that it seems wiser always to make it the first step, reserving peritoneal exploration for a later resource in cases where the posterior operation miscarries.

*Calculus Removed from the Ureter.*—A paper was read at a recent meeting of the Clinical Society of London by Mr. Twynam of Sydney, New South Wales (*Lancet*, Feb. 1, 1890), describing how, in a child aged 8 years, a calculus was successfully removed from the ureter. The patient entered hospital suffering from pain in the abdomen and hæmaturia. Pain was felt over the pubes and at tip of penis after micturition. No stone in bladder. Distinct tenderness in left loin. High temperature. On Feb. 6th an exploratory incision was made in the left linea semilunaris and the left kidney and ureter examined, but no stone found. A calculus was found, however, in the right ureter two inches from the bladder, and when pressed upon could be felt through the rectum. The stone was removed by linear incision in a subsequent operation, because patient had a tempera-

ture of  $106^{\circ}$  and convulsions. Incision was made as if to tie the common iliac artery. Some difficulty was experienced in isolating the ureter, but it was ultimately accomplished and the stone removed with forceps through a linear incision. It weighed six grs. and was the size of a No. 12 catheter. The wound in the ureter was closed with fine silk, a drainage tube was introduced into the wound cavity, and the wound dressed with salicylated wool. Urine ceased to flow from wound on the fifth day, after which it rapidly healed, and the boy made a perfect recovery. The striking points in this case were (1) the difficulty of diagnosis owing to the fact that a stone in the bottom of the right ureter caused pain in the region of the left kidney, (2) the novel method of removing a stone situated so low down in the ureter.

In his Harveian lectures on the *Surgery of the Kidney*, Mr. J. Knowsley Thornton (*Lancet*, Dec. 7th, 1889), in speaking of puncture and lumbar nephrotomy, briefly summarizes as follows: He would restrict puncture (1) to decide in doubtful cases between solid and fluid tumors of the kidney; (2) to relieve painful distension when nephrotomy for some special reason is not at once advisable or possible; (3) to remove urine, serum or pus from a very large tumor to reduce its bulk in the performance of nephrectomy; (4) as a tentative attempt at cure in some cases of simple cyst or hydronephrosis; (5) to localize the position of renal or circumrenal abscess when the physical signs are not clear enough for free incision; and (6) to gain time and relieve harmful tension in some cases of calculous suppression. He would restrict the use of nephrotomy to (1) calculous suppression in which the incision seems preferable to mere puncture, with the chance of being able also to remove the stone; (2) for the cure by subsequent drainage of simple cysts, abscesses and hydatids; (3) for the cure by subsequent drainage of traumatic pyonephrosis or pyelitis, and in the early stages of tubercular suppuration; (4) for the possible cure of more advanced calculous or tuberculous suppurations when the patient will not submit to nephrectomy; and (5) for the performance of nephro-lithotomy in some cases. Mr. Thornton strongly objects to lumbar nephrec-

tomy for tumors of the kidney, one of the objections being the possibility of not being able to find the kidney, an accident that has happened to experienced London surgeons in a large number of cases; another, that a single kidney may be removed. He being an abdominal surgeon, is altogether in favor of the abdominal method by the lateral incision of Langenbuch along the outer border of the rectus muscle. If it be necessary to drain, a Keith's glass tube is used, and should be cleaned each day under the spray. He says that, as a precise and scientific operation, there is no comparison between the abdominal operation and its lumbar rival. After the operation he allows no opium or stimulants, but if it is absolutely necessary to give a sedative, he gives potassium bromide and chloral injections per rectum. Mr. Thornton has only had a mortality of 20 per cent in his cases of nephrectomy.

*Wounds of the Kidney.*—M. Taffier of Paris, in an article on *Wounds of the Kidney* (*Archiv Gén. de Méd.*, March 1889), says that in cases of wounds of the convex edge of the kidney there occurs a copious hemorrhage from a network of veins in the cortical substance of the organ, this being easily arrested, however, by slight compression. Wounds of kidney are not followed by urinary infiltration; they have a remarkable tendency to heal rapidly and without suppuration,—in 69 cases only seven suppurated. Hemorrhage, in case of injury of the hilus, is, next to shock, the most important symptom, and this may be so profuse as to be followed by death from this cause alone. In bullet wounds, secondary hemorrhage is frequently observed. Hæmaturia in wounds of the kidney is characteristic, though not always present (18 in 31). Anuria is the exception.

Under the head of complications may be mentioned prolapse of the kidney. This may occur without any injury of the kidney having taken place. Suppurative processes are relatively infrequent. Fistulæ are very rare even after suppuration. Among 78 wounds of the kidney recorded in the surgical history of the war of the Rebellion, in only one case did a permanent fistula remain.



The prognosis in cases of wounds of the kidney must be cautiously given. Of course, if other internal organs are injured the case becomes much more serious. When a case presents itself it should be carefully cleansed antiseptically and precipitate nephrectomy should be avoided.

*Treatment of some forms of Chronic Suppurating Kidneys by Perineal Puncture and Drainage.*—In an article on the above subject, Mr. Reginald Harrison comes to the following conclusions (*Lancet*, Dec. 7th, 1889):

(1) That in a large number of cases of simple suppurating pyelitis caused by obstruction below, the pus gradually and completely disappears as the resistance to the urine is removed. This is exemplified in the ordinary treatment of urethral stricture by dilatation or otherwise.

(2) That some advanced forms of chronic double suppurative pyelitis from obstruction below, where the suppuration continues to be excessive after the obstruction has been removed or relieved, are best treated by an opening in the perineum where the drainage is free and dependent and irrigation can be conveniently employed.

(3) Perineal puncture (elsewhere described by Mr. Harrison) best meets the requirements of these cases, and may be said to be free from risk. Mr. Harrison says that perineal puncture entails no prolonged confinement in bed. He has had patients going about ten days after operation. Mr. Harrison has devised a very simple contrivance consisting of a soft rubber drainage-tube for retention in the bladder by a T-bandage, to which is attached a continuation-tube fitted with a stop-cock, the end being retained in a belt around the patient's waist.

(4) In cases of suppurating kidneys, where not too advanced, by making a dependent perineal opening, whatever remains of sound suppurating kidneys may be saved and life prolonged, whilst the comfort of the patient is materially added to.

*Ligature of the Common Iliac Artery for Hip-joint Amputations.*—Dr. Poffert of Giessen reports a case (*Deutsch. Med. Woch.*, No. 29, 1889) in which Prof. Bose had resorted to preliminary ligature of the common iliac artery as the first step in

a hip-joint amputation. The patient, a strong, healthy man, aged 40, had noticed for six months that his thigh had begun to swell above the knee, and that the past few weeks the swelling had increased rapidly and caused pain. Examination showed a tumor extending from the condyles to the groin, its upper limit being felt anteriorly under Poupart's ligament, and posteriorly a little below the gluteal fold. The limb was cylindrical in shape, enlarged; skin over tumor tense and shiny. Veins much dilated. No fracture of femur. Amputation was performed Dec. 11th, 1884. He first proceeded to tie the common iliac artery in the usual manner. The artery and vein were easily exposed, and seen to be surrounded by fat and enlarged glands. The vein and artery were ligated and the glands removed. The wound was closed, a drainage-tube being inserted at the lower angle. The amputation was now performed by anterior flap, consisting of only skin and fascia; the posterior flap consisted of skin and muscular tissue, which here was healthy. Very little hemorrhage took place. The large wound was drained and closed with silk sutures. The pulse after the operation was excellent, and the patient made a rapid and perfect recovery. Tumor, a spindle-celled sarcoma, starting from bone. Four years after operation patient was perfectly healthy and free from return of disease.—(*Quoted in Annals of Surgery*, Dec. 1889.)

*The Use and Abuse of Drainage Tubes.*—Mr. Rickman Godlee, in an interesting article on the above subject (*Practitioner*, Feb. 1890), comes to the following conclusions:—

The advantages of doing without them are—(1) The healing is more rapid. (2) The scar is more uniformly linear. (3) The chance of failing with the antiseptic element is much diminished.

Disadvantages are—(1) The temperature does not seem to keep so absolutely normal as we see it in perfectly drained wounds. (2) There is risk of blood or serum collecting under the flaps; and while in many cases this may be absorbed, in others it will require removal, and then the cure is probably longer than it would have been if drainage had been employed at first.

Dr. Hans Schmid of Berlin, in an article on the *Changes in*

*Value and in the Manner of Draining Wounds* (*Berliner Klinik*, Hft. 11, May 1889), says that rubber tubes are frequently compressed by the dressings and bandages, and that their benefit is a delusion. Infection of wounds after operation is represented by two types—either a diphtheritic slough appears on both walls of the wound after union of the skin over the wound, or else a phlegmonous inflammation of the tissues obtains. In neither of these two cases are drainage tubes of any avail. Drainage tubes are frequently stopped at both ends by clots and granulations. They always act as foreign bodies, and may prove disastrous to an aseptic course by containing air. Finally, the presence of drainage tubes calls for an unnecessary change of dressing. Dr. Schmid has treated between 600 and 900 major surgical operative cases without drainage tubes, and in all cases he was contented with the results, and no case gave cause for serious apprehension, but once in a while retention of bloody serum occurred, which occasionally (if not speedily let out) would turn purulent.—(Quoted in *Annals of Surgery*, Nov. 1889.)

*Long-standing Dislocation of the Shoulder treated by Operation.*—Sir Joseph Lister (*Lancet*, Jan. 1890) reports two cases of the above successfully treated by operation. The first case was that of a man, aged 47, who came to King's College Hospital eight weeks after having dislocated both shoulders. On admission, both limbs presented the usual characters of subcoracoid dislocation. He operated by first making an incision from the coracoid process downwards and somewhat outwards between the deltoid and great pectoral, the tendon of the subscapularis was divided at its insertion, and then with a periosteum detacher proceeded to separate the soft parts from the head of the bone and the inner part of its neck; pulleys were applied, and after protruding the head of the bone, dividing some tense bands, and separating the external rotators, the bone was returned with difficulty to the glenoid cavity. A week later the other shoulder was operated on in the same way, except that the head of the bone was at once protruded and the attachment of all the rotators divided. In this instance the head, after two attempts, was

drawn into place by pulleys. The wounds did perfectly well, and there was no suppuration; passive motion was employed and kept up; serous oozing for nearly two months; he was discharged from hospital two months after operation, and returned in about two months for inspection. The arms could be moved to a right angle and rotation was much improved, and patient could do his work as an agricultural laborer.

The second case was that of a young man, aged 23, who was admitted into hospital in July, 1887, seven months after having dislocated both shoulders in an epileptic fit. On both sides the dislocation was subcoracoid. The shoulder was operated on in the same way as the first, but the result was not brilliant, so six months afterwards the other shoulder was operated on in a different way. He decided that he would merely cut down on the head of the bone and remove it piecemeal by means of chisel and hammer without disturbing the attachments of the external rotators. For a study of the skeleton with the humerus in the subcoracoid position had convinced Sir Joseph that the removal of the articular surface without interfering with the tuberosities would allow the bone to drop back in relation with the glenoid cavity. This was done January 1888, and the immediate result was good. The bone went readily into place, recovery of movement was much more rapid than on the other side, and he had almost perfect use of the arm.

Sir Joseph Lister would advise that when the surgeon feels in doubt as to whether it is prudent to make attempts at reduction, or when such attempts do not succeed, he should, in the first place, cut down upon the bone by the usual incision, and then detach with a periosteum elevator the soft parts from the inner side of the upper end of the humerus. This will ensure the avoidance of injury to the axillary vessels. Should these means fail, then detaching the heads of the rotator muscles and removal of the head of the bone will ensure a useful limb.

*Note on a possible means of Arresting the Progress of Myxœdema, Cachexia Strumipriva, and allied Diseases.*—Mr. Victor Horsley (*British Medical Journal*, Feb. 8th, 1890) suggests that after the removal of the thyroid to prevent cachexia

strumipriva a portion of the thyroid gland from one of the lower animals should be transplanted into the peritoneal cavity or into the subcutaneous tissues. The successful growth of the grafted gland would probably bring about arrest of the diseased process by reason of restoration of lost function. Performed under strict aseptic conditions the operation would be without risk or inconvenience. He suggests that the thyroid gland of an anthropoid ape would be best, but this not being obtainable, he advises that of the sheep as most resembling in its anatomical characteristics that of man. One lobe or half of one lobe would be sufficient. Mr. Horsley's suggestion is based on the observations of Prof. Schiff and Dr. Von Eiselberg.

*Suture of Nerves.*—E. Etzold records (*Deutsch. Zeitschrift f. Chir.*, Bd. xxix, Hft. 5 and 6, 1889) a number of cases occurring at the Dorpat Clinic, in which various nerves, chiefly the ulnar, radial, median and musculo-cutaneous, were sutured at different intervals after their division with great success. After considering the whole subject, he comes to the following conclusions :

(1) Nerves do not unite by either primary adhesion or second intention. The axis cylinders are the extension of the cells of the ganglia, and their re-formation by means of an exudation of cellular elements of mesodermal origin is, for anatomical reasons, not to be expected.

(2) Divided nerves are regenerated by means of a proliferation from the proximal stump. This was established by experiments on animals, and has been confirmed by clinical observation, which shows beyond all doubt that the proximal end of a divided nerve is regenerated earlier and more completely than the distal end.

(3) The return of sensation is of no value in the diagnosis of nerve regeneration. The symptoms indicating its occurrence are—(a) active muscular contraction; (b) disappearance of atrophy, especially of muscular atrophies; (c) slow appearance of this improvement; (d) the return of faradic excitability in muscles previously paralyzed. The galvanic current is not of much importance in the diagnosis of nerve regeneration.

(4) Spontaneous union of divided nerves in the extremities is extremely rare. In high injuries of nerves, the prognosis is unfavorable in spite of nerve sutures.

(5) Regeneration of nerves is prevented by the extensive formation of cicatricial tissue.

(6) Nerve suturing is not only a justifiable operation, but in every traumatic case of nerve section it is the duty of the surgeon to adopt it.

(7) The essentials of success are—absolute antisepsis, complete hæmostasis, avoidance of irritation. If after nerve injuries a congested condition of the limb results, it should be elevated and massage employed as soon as the wound is healed. Direct galvanization of the nerve scar should be employed, as well as massage, soon after cicatrization in order to diminish the scar.

(8) It is not proven that electric treatment of the organs supplied by the cut nerves either limits the atrophy or favors nerve regeneration. Massage and passive gymnastics constitute the rational treatment for peripheral paralysis.

(9) The most extensive use of the extremity that is found possible after nerve section appears to have a favorable influence upon the healing.—(*Quoted in American Journal of the Medical Sciences for March, 1890.*)

*New Method of Operating for the Relief of Deformity from Prominent Ears.*—The deformity caused by prominent ears is very unsightly, especially in females. This deformity, from causes with which I am unacquainted, is peculiarly common in the neighboring United States, so it is quite fitting that an American should devise an operation for its relief.

Dr. Keen of Philadelphia (*Annals of Surgery, Jan. 1890*) describes a case operated on. The patient was aged 19, and the following operation devised for his relief. An oval portion of skin was removed from the posterior surface of the auricle, the cartilage being laid bare by dissection. In the long axis of the oval excision of skin a long, narrow piece of cartilage was removed, V-shaped on cross-section. Great care was taken not to cut through the skin on the anterior surface of the ear. On the left side three catgut sutures were introduced into the car-

tilage itself, in addition to those in the skin. The result was equally satisfactory on both sides. The two operations were done at the same time; they were attended by free bleeding, which was easily controlled. The result obtained was remarkably good.

*Cancer of the Tongue.*—Dr. Krause of Halle says that during the period extending from 1875 to 1888 ninety-one cases of carcinoma of the tongue were operated on at Prof. Volkmann's klinik. Of these, two died immediately after operation, these being cases of complete extirpation, of which there were thirty-five in all. The average duration of life following the operation in these last-named cases was twelve months; but one was absolutely free from recurrence six years after. Of the fifty-six cases of partial extirpations, seven were found to be free from recurrence after the same lapse of time. The most rapid recurrence in this class took place in eight months. The microscopic diagnosis was established in all cases.

Prof. Volkmann, after trial of the submental method of operating, abandoned it. He likewise rejects preliminary ligature of the linguals, as well as preliminary tracheotomy. In the relatively easy cases the tongue is brought well forward and hemorrhage is arrested in the wound; in more difficult cases Langenbeck's method of temporary section of the lower jaw, with division of the palato-glossal arch, is adopted; a drainage-tube is placed in the recess of the tonsil. Cases involving the epiglottis are rejected. (*Deutsch. Med. Woch.*, No. 22, 1889; quoted in *Annals of Surgery*, Feb. 1890.)

*New Method of Operating for Thoracic Empyema.*—Dr. M. Ssubbotin says that in long-standing cases of empyema, in which plastic measures for recurring obliteration of the pleural cavity by collapse of the chest walls are indicated, he successfully performed the following operation. A portion of the 7th rib is resected in the usual manner, and the pleural cavity opened and thoroughly irrigated. This opening is packed in order to prevent septic infection. A longitudinal incision is now made upon the external edge of the pectoralis major muscle of about five centimetres in length, by means of which the 6th, 5th and 4th ribs

are bared without removing the periosteum ; from each of these ribs a small wedge is resected, so that the rib becomes movable at this point. A similar longitudinal incision is made in the posterior axillary line, and at this point the above-mentioned ribs are treated in a similar manner. The vertical incisions have no connection with the pleural cavity, and are sutured at once without damage. The portion of the chest wall lying between the longitudinal incisions now sinks in, and, as the healing process advances, becomes fixed in this depressed position, serving the double purpose of protecting the chest cavity and preventing in some measure the scoliosis which occurs so commonly after operations for empyema.—(*Vratch*, 1888, No. 45 ; quoted in *Annals of Surgery*, Feb. 1890.)

---

## Hospital Reports.

### MONTREAL GENERAL HOSPITAL.

#### CONDENSED REPORTS OF CASES IN DR. MACDONNELL'S WARDS.

*Exophthalmic Goitre*.—Two cases have been before the class. A girl, aged 21, for several years had suffered from palpitations on exertion, and six months ago the thyroid began to enlarge. The area of cardiac dulness was moderately increased. The pulse was rapid (120) ; the cardiac action hurried and violent. There was a systolic murmur, loudest at the 2nd right costal cartilage. The exophthalmos was not so well marked as the two other cardinal symptoms of the disease, but the eyes, though not actually prominent, had a staring appearance, which attracted attention. The remarkable feature in the case was the well-defined brown pigmentation on the upper and lower eyelids. This had made its appearance during the last six months, and seemed to have no tendency to spread. The natural complexion of the patient is fair, and the pigmented skin has the color of a huge freckle. Vitiligo, as I must call these patches, has been noted in cases of Graves' disease, and cases of universal bronzing of the skin have been recorded. The other eye symptoms (Graefe's and Stellwag's) were absent. There was a great deal of nervous excitement, and an inability to remain long in a state of quiet, the move-



ments being almost choreic. There were no tremors. Decided improvement in all the symptoms followed a period of rest in bed without any medication. Subsequently the tincture of belladonna was given in increasing doses until the throat became dry and the pupils large.

The second case was that of a stout, married woman, aged 35, in whom the exophthalmos was remarkable. The cause of the disease was probably fright. Ten months ago labor came on suddenly when she was quite alone in the house, and it was two or three hours after delivery before assistance arrived. Almost immediately afterwards the prominence of the eyeball was noticed and the sight became defective. She presented herself at the ophthalmic department, where the true nature of the disease was discovered. The pulse is not very rapid (100); the heart's action is not hurried. The thyroid is slightly enlarged, but there is no thrill; the exophthalmos is very prominent. When the pupil is directed towards the ground the upper lid remains perfectly fixed in its position, and it is in a constant state of retraction, so that the cornea is not covered.

*Lead Poisoning : Chronic Interstitial Nephritis ; Hemiplegia : Death.*—(Dec. 28th.)—In the Hospital Reports of the October number of this JOURNAL, page 291, the reader will find the history of W. S., aged 58, who, since 1875, has suffered from symptoms of lead poisoning. On the 11th May of the present year it was recognized that he was the subject of chronic Bright's disease of the small kidney variety. He left the hospital on 31st August. On the 24th of December he was readmitted, this time profoundly unconscious. It appears that about a week before admission he had become suddenly unconscious, and had remained so until admission. He died after being two days in hospital. His condition was as follows: There was speechlessness without, apparently, unconsciousness, for although he gave no sign of comprehending the questions put to him, yet his eyes followed one about as if he partly understood his whereabouts. It would appear as if the whole body were powerless, but when the neck is irritated the right hand is raised, but the left arm is never moved. When the sole of the foot is pinched, the right leg is quickly drawn away, but this is not observed with the left leg. Knee reflex

is absent in both legs. No evidence of paralysis of the facial nerve. Urine and faeces pass involuntarily. The former contains a very large proportion of albumen. The heart's action regular and the sounds natural. The evidences of hemiplegia were slight, and as he had had transient hemiplegia of the other side on the 18th May last, it was thought that possibly the condition might depend upon uræmia, though the extreme probability of hemorrhages into the brain was fully taken into account. The case is one of exceeding interest, as showing a succession of changes, all resulting the one from the other,—first the lead, then the granular kidneys, the arterial disease, the high tension pulse, and the final catastrophe—the rupture first into one corpus striatum and eight months later into the other. The post-mortem appearances explained all the symptoms which were present. Both might with advantage be represented in tabular form.

SYMPTOMS.	POST-MORTEM APPEARANCES.
Left hemiplegia, with loss of consciousness.	Recent hemorrhage into the right external capsule.
On 18th May, 1889, transient right hemiplegia.	Spot of softening in left internal capsule and corpus striatum.
General mental enfeeblement.	Minute recent hemorrhagic softening in the white substance of the left hemisphere. The smaller arteries of the brain under the microscope show extensive fatty degeneration in the intima and media, with numerous aneurysmal dilatations.
Urine pale amber. sp. gr. 1017; small amount of albumen; quantity usually not much above normal. Hyaline casts.	Kidneys cirrhotic, greatly contracted; weight—left, 80 grammes; right, 70 grammes. Normal weight, 130 grammes.
Normal amount of urea.	
Apex beat displaced downwards and outwards. Increased area of cardiac dulness. High tension pulse.	Hypertrophy and dilatation of the left ventricle.
Ophthalmoscope shows albuminuric retinitis.	Retinitis on right side.
Physical signs of lungs negative when formerly in hospital.	Atrophic emphysema and healed tubercular nodule in left apex. Acute broncho-pneumonia (a late change).

*Erythema Nodosum ; Phlebitis of the axillary and femoral veins, and subsequently of the external jugular ; epigastric pain and ascites ; phlebitis in both legs ; evidences of consolidation at the base of right lung ; diarrhœa ; subcutaneous nodules ; aspiration of 110 ounces of serum ; varicosity of the thoracic veins ; rapid dilatation of right heart ; death ; autopsy.*

Annie D., aged 43, was admitted into the surgical wards early in September last with erythema nodosum and stiffness of the muscles, especially of the neck. She was transferred to the medical wards almost immediately, and the following state on admission was noted. Slight swelling and tenderness of the left side of the neck and pain on movement. Physical signs of chest negative. Urine normal. No digestive disturbance. On the fourth day after admission there was pain and swelling in left axilla, which was thought to be due to enlarged lymphatic glands. On the twelfth day there was severe epigastric pain, which was relieved by vomiting and passed gradually away. In the same evening there was pain and tenderness in left groin. Four days later there was evident phlebitis of the left internal jugular vein, which became distinctly cord-like and very tender. It was treated in the usual way, the pain and swelling gradually disappeared, and the patient feeling stronger, left the hospital on the 19th October.

On the 18th November she was re-admitted, this time complaining of severe epigastric pain, abdominal distension, and a painful swelling of the left leg. After leaving hospital she had been very well for a fortnight, when she began to menstruate and then to suffer from intense pain at the epigastrium. Temperature  $100\frac{1}{2}^{\circ}$  ; pulse 96. Nausea and vomiting after food. Evidence of fluid in the peritoneum. Dulness on percussion, bronchial breathing, and crepitant râle at the right pulmonary base. Both legs are enlarged about the calves and very tender to the touch, especially the right. No affection of the joints. Sharp diarrhœal attacks from time to time. The thoracic veins of the left side were noticed to be varicosed. The patches on the legs for which she originally entered hospital never entirely

disappeared, but remained as reddish indurations, and now they are inflamed and angry-looking. They are situated about the calves of the legs.

A week later similar physical signs, though not marked to the same extent, were found in the left base.

*Nov. 27th.*—One hundred and ten ounces of a clear fluid were removed to-day by the aspirator ; it contained no pus. The discomfort due to the abdominal distension was removed, but the symptoms were unchanged. The temperature is now generally about 100–101° at night and 99° in the morning. Considerable epigastric pain. As a result of a vaginal examination by Dr. Gardner it was found that the womb was fixed in the pelvis, probably by old inflammatory adhesions.

*Dec. 10th.*—The varicosity of the thoracic veins is becoming very marked.

*Dec. 11th.*—Death occurred to-day, the following symptoms preceding the event. In the early morning she complained of very severe pain in the abdomen, and she became much more feeble. The pulse became rapid (144) and very weak. The thoracic veins became as large as lead pencils, and the general surface of the upper part of the body on the left side was generally cyanotic. The heart's action became visibly turbulent, the cardiac area of dulness became increased, and the sounds became confused, so it was impossible to distinguish one from another.

At the autopsy thromboses were found in the right femoral and the popliteal, as well as in many of the smaller veins of the right leg. There was recent embolism of all the main branches of the right pulmonary artery. Old infarctions in both lungs, over one of which an adhesive pleurisy has occurred. The base of the right lung is collapsed. Pale, colorless clots dilate the right heart to an enormous size. There is chronic interstitial inflammation of the pancreas, with the formation of some large cysts near the splenic end. Several small localized subcutaneous indurations containing pus are found in both legs and in the right arm. Fluid in abdomen and evidences of recent peritonitis.

The diagnosis of this case was very obscure. That some one

cause was producing the stagnation of blood in so many different parts of the body was evident enough. There was no symptom present which could not be explained by the occurrence within the body of what we saw going on outside it. But to find a cause for this general tendency to thrombosis was a different matter. At one time it seemed as if the presence of tubercular peritonitis would account for the abdominal symptoms, but it would not explain the occurrences elsewhere. We must fall back on rheumatism to account for the thrombosis as well as for the erythematous nodules and the peritonitis.

### *Tubercular Meningitis in an Adult.*

J. W., aged 23, had been in hospital two years ago with a tumor of the testis, which, on removal, was found to be tuberculous, and not very long after that he had an attack of pleurisy of the left side, from which he apparently recovered, but soon an abscess formed in the centre of the sternum, from which there came a discharge which continued up to the last. On admission (Jan. 27th, 1890) the chief symptoms were intense headache, which was constantly present, though it was said to be worse at night, and with this headache delirium and noisiness. There was a continued high temperature and a rapid pulse. The expression was remarkably dull and stupid, and the gait staggering. He says that he has felt numbness in his right arm for the last two months. No history of tubercle in his family. The patellar reflex is lost in both legs. Cutaneous irritability is increased. Vision is very dim. Ophthalmoscopic examination reveals slight hyperæmia of the optic nerve and a tortuous condition of the retinal veins. The organs of hearing are unaffected. Physical signs of chest negative. The tongue is clean and flabby. He is not at present suffering from vomiting, but it has been present before admission. Coma put an end to the headache and delirium on the eleventh day after his admission to hospital.

At the autopsy gray granulations were found on the convexity, in the fissure of Sylvius, while large patches of lymph were seen at the base. In the left cerebellar hemisphere a large tubercular tumor was found. A few tubercles were found in the apices of the lungs.

*Alleged "Fits" followed by profound Coma in a Young Girl after Mental Emotion; Death; General Thrombosis of the vessels of the Brain.*

On 3rd February a servant maid, aged 25, was admitted under the following circumstances. She was said to have been in good health until the present attack. Though she had always been nervous and excitable, yet she had never been known to have had fits of any kind or to be at all subject to hysterical attacks. No family history of nervous disease. Five days before admission she complained of dizziness and of dimness of vision, but she continued at her housework for two days, and on the 1st February was said to have fallen in a fit in her kitchen, but recovered very soon, and was put to bed. On the following day she was said to have had fits every half hour. There was gasping, sighing and rolling of the eyes, but no spasm of the arms or legs. These events were said to have followed some quarrel which she had with her mistress.

On admission she was almost completely insensible; eyes half closed; mouth slightly open; pupils react to light. Pulse rapid and feeble. Tongue heavily coated and abdomen scaphoid. Incontinence of urine. Urine normal. The insensibility at the time of admission was not complete, for by an effort she could be roused to give her name and to say "yes" or "no," and she was able to take food offered to her, but immediately afterwards she lapsed into her previous state of insensibility. Reflexes normal. Sensation lost. On the day after admission the coma deepened.

*Feb. 5th.*—Breathing became rapid and swallowing was accomplished with difficulty.

*Feb. 6th.*—Condition much worse. Breathes more rapidly. Mouth continually open; tongue dry; mucous rattle in the trachea. Died on the following day.

The diagnosis of this case was a matter of considerable doubt and uncertainty. At the outset there were many symptoms pointing to hysteria. A young, healthy girl, never previously ill, quarrels with her mistress, is put thereby into a state of great mental excitement, is said to suffer from a succession of mild

“fits,” during which she does not bite her tongue or pass water involuntarily, and is finally brought to hospital in a semi-unconscious state. But subsequent observations soon dispelled that idea, for the patient presented no appearance of hysteria, but, on the contrary, there was profound stupor and no trace of clonic spasm. The incontinence of urine, which was present from first to last, added to the unlikelihood of hysteria. Though I could make no positive diagnosis, yet the possibility of the symptoms depending upon tubercular meningitis was before me, bearing in mind the case recorded by Gowers, where a young girl under circumstances somewhat similar developed symptoms which were at first regarded as hysterical, but which afterwards became serious, and after being a few days semi-comatose and passing water involuntarily, died on the eighth day after the onset. The post-mortem in this case revealed general tuberculosis of the lungs, peritoneum and intestines, some small masses of yellow tubercle in the cerebral hemisphere, and meningitis of the base, the lymph being specially abundant about the pons and medulla, with opaque tubercular granulations.\*

Having just read this case, I thought it possible that a similar condition might be found to exist in my patient. Dr. Johnston kindly furnished me with the following abstract of the post-mortem report, which speaks for itself :

“The vessels of the pia mater are very full, especially in the frontal region, where slight diffusion of blood has taken place into the tissues (post-mortem staining?). Throughout the whole extent of the corpus callosum, fornix and internal capsule, the white substance is studded with innumerable punctiform capillary hemorrhages. A few similar hemorrhages are also found in the external and inferior part of both crura cerebri. The peripheral region of both optic thalami and the cortex at the spot of diffusion in the first frontal convolution are the only places where the condition extends to the gray matter. The hemorrhages throughout are perfectly symmetrically arranged. The only other lesion found was a moderate degree of broncho-pneumonia, chiefly in the lower lobes. The lungs and all other organs free from hem-

\* A Manual of Diseases of the Nervous System. London, 1888. Vol. I., p. 323.

orrhages. Examination of the hemorrhagic spots showed them to be accompanied by, and probably caused by, thrombosis of the smaller vessels. The blood at these spots, as well as from other organs, was examined in the fresh condition and in stained preparations for bacteria with negative results."

### SURGICAL CASES UNDER THE CARE OF DR. RODDICK.

(Reported by Dr. G. A. BROWN, House Surgeon.)

#### I. — *Excision of Elbow Joint.*

A. B., aged 36, admitted Nov. 8, 1889, complaining of disease of the left elbow-joint. The disease began about twelve years ago after a fall on some ice, which caused the elbow to become swollen, hot and tender. The elbow remained in this condition for about ten days and then apparently got well. After six years it began to swell again, causing stiffness, pain of a dull, aching character, and fixation of the forearm at right angles to the arm. These symptoms remained about the same until four weeks ago, when swelling and pain increased so much that it had to be lanced, and from the wound there exuded about half a cupful of pus. Two months ago it broke again on the outer side of the joint, leaving a large opening. Patient was never a very healthy boy, for when eight years old he had rheumatic fever, which affected the right hip, causing lameness and dislocation on to the dorsum ilii. At present patient is fairly well nourished, sound in all his organs, eats and sleeps well.

On examination, the joint is swollen, and a little distance above the external condyle there is an ulcerated spot with a fistulous opening in the centre leading down to the joint. There is very little movement, as the forearm is fixed at right angles to the arm.

On Nov. 14, '89, the operation of excision was performed, an incision four inches long being made posteriorly over the back of the joint; the flaps were reflected and the joint opened. Some difficulty was experienced in finding the ulnar nerve owing to the thickened condition of the soft parts. A large amount of thickened synovial membrane was removed. The cartilages were nearly entirely eroded. The head of the radius especially



showed a considerable share of disease, proving that the inflammation was originally located there. The sinus above referred to was situated immediately over the radial joint. This was subsequently scraped and pared and the edges brought together. All the articular surfaces of the three bones were freely removed. The edges of the wound were sutured, a bone drain introduced, the joint dressed antiseptically, and forearm placed at right angles to arm.

*Nov. 26th.*—Patient has been in a good condition for the last ten days. Dressing was removed from arm and wound found healthy, having united by first intention. The sutures and drain were removed and passive motion performed, and then dressed with a light dressing.

*Nov. 28th.*—Patient has passive motion performed every day and wound dressed with dry dressing.

*Nov. 30th.*—Movement of elbow joint is improving every day. Wound entirely healed.

*Dec. 2nd.*—Left hospital with good result. Motion in elbow joint has steadily improved as result of passive motion. Patient can straighten his arm and flex the forearm on the arm, almost touching his shoulder. Pronation and supination good.

## II.—*Urinary Fistula.*

G. A., aged 50, admitted Nov. 26th, 1889, complaining of urinary fistula. Four years ago patient fell astride of a stump, causing a good deal of bruising of the perineum, but no open wound. Two years and a half after the fall noticed difficulty and frequency in making his water and a white sediment in urine. These symptoms continued up to July 18, '89, when a small swelling appeared on the left side of scrotum, and steadily increased until it broke, discharging a small quantity of pus. Since July he has suffered from difficulty and frequency of micturition, pain at the neck of the bladder just before micturition, and escape of urine through the fistulous opening made by the bursting of the abscess. Patient is old in appearance, fairly well nourished, and all his organs are sound.

On examining the urine it was found to be alkaline, with a

specific gravity of 1021, a trace of albumen, and no sugar. With the microscope a few pus cells were found. On examination of the perineum, a small, red, elevated, warty excrescence is seen on the left side of scrotum, about one inch above anus. The parts around excrescence are red and indurated, and in centre of excrescence there is a fistulous opening, which is connected with urethra, and also runs up along the scrotum towards the pubes.

On Nov. 28th, patient was etherized and a median lithotomy staff introduced. An incision was made in the median line at a point midway between scrotum and anus, cutting down on to the staff. A director was passed into the bladder along the staff as a guide and a rubber drainage-tube introduced, and bladder washed out with boracic acid. The fistulæ were slit up, scraped, and the cavities stuffed with iodoform gauze and dressed with a jute pad, held in position by a T-bandage.

*Dec. 5th.*—Wound filling up; introduced a smaller tube in perineal opening; all induration has disappeared.

*Dec. 8th.*—Dressing wound with red wash instead of iodoform gauze.

*Dec. 17th.*—Tube removed: catheterized every four hours during the day, and catheter tied in during the night.

*Dec. 23rd.*—Stopped passing catheter; can pass his urine all right through penis, but during the act a small quantity escapes through the perineal opening.

*Dec. 30th.*—Wound almost covered with skin; perineal opening about size of pin's head; tied in catheter night and day, so as to close perineal opening.

*Jan. 6th, '90.*—Introduced an armed probe of nitrate of silver into perineal opening to stimulate granulation.

*Jan. 8th.*—Perineal opening closed; wound is entirely skinned over; passes urine all right, no frequency; urine normal.

*Jan. 15th.*—Left hospital cured.

## Reviews and Notices of Books.

The History and Pathology of Vaccination. Vol. I., A Critical Inquiry ; Vol. II., Selected Essays. By EDGAR M. CROOKSHANKS, M.B., Professor of Comparative Pathology and Bacteriology in, and Fellow of, King's College, London. London : H. K. Lewis, 136 Gower street. 1889.

In the study of a great subject such as vaccination, it is well that, from time to time, some competent person should assume the duty of collecting, valuing and placing on record the separated facts which form the sum of our common knowledge. Such a task has been attempted by the compiler of the volumes before us.

The discovery of an outbreak of cowpox in 1887 led Mr. Crookshanks to the investigations, of which the present work is the outcome. Up to that time he had accepted and taught the doctrines commonly held by the profession and described in the text-books of medicine. The natural cowpox had not been investigated for some fifty years, and the author found that a much neglected field for research was open to him. Satisfied that too much attention was being given to the *technique* of vaccination whilst the precise knowledge of the history and pathology of the disease was a matter entirely overlooked, he determined to make this the subject of a diligent and far-reaching inquiry.

The library of the Royal College of Surgeons afforded some valuable MSS., and amongst others the original of *Jenner's Communication to the Royal Society*. The very small amount of evidence on which Jenner substituted *vaccination* for small-pox inoculation induced Professor Crookshanks to look carefully into the biography of Jenner as given by Baron, and into the vaccination literature of that period ; and in 1888 he made a visit to the leading authorities in France with the object of obtaining the history of the Bordeaux lymph and of the outbreaks of cowpox which had been met with in that country during the time that the disease had been supposed to be extinct in England.

The greater part of the first volume is historical and biographical, beginning with an elaborate account of small-pox

inoculation both abroad and at home, and it is not until the sixth chapter that we come to read of the investigations of Jenner and the history of his early efforts. An interesting *fac-simile* of part of the first rejected manuscript sent to the Royal Society is inserted in the volume, and the reader can see from the copious extracts of it which are given that there is good reason to account for its want of success. It appears to have been somewhat hastily written, and the part relating to the protection from smallpox is not brought forward with sufficient prominence. Mr. Crookshanks attacks Jenner, or, rather, it would be better to say, he disparages his efforts. According to the author, Jenner was wrong in supposing cowpox to be cow smallpox; he was not the discoverer of vaccination, for the dairymaids found that out, nor was even the credit of introducing the inoculation of vaccine due to this pretender, for, according to Mr. Crookshanks' statement, this was done by Benjamin Jesty in 1774, and a good deal of space is taken up with an account of this worthy, whose portrait forms the frontispiece of the first volume.

Jesty was a farmer in Dorsetshire who had inoculated with virus direct from the cow his wife and two children in 1774. The sons had the disorder in a favorable way, but the arm of Mrs. Jesty (whose portrait is also given) became much inflamed. Fifteen years afterwards the sons were inoculated for the smallpox; slight inflammation ensued, but no fever or other variolous symptom, while all the others inoculated at the same time went through the usual course of inoculated smallpox. Jesty did nothing to persuade others to adopt the safeguard he had found so effectual until thirty years later, when the news of Jenner's rewards reached him, when he attempted to claim the recognition of Parliament also, but in this he failed.

The author in the next chapter deals with the subject of vaccine lymph, taking strong ground on the question that cowpox is not cow smallpox, and that the inoculations practised by Ceely, Badcock, Chauveau and others from the vesicle of a variolated cow, were in reality smallpox inoculations, and differed in no way from the common pre-vaccination inoculations except in the fact that they did not necessarily carry infection.

The following chapters deal with sheep smallpox and goat smallpox, and then we come to the most important heading, "Cowpox as a Source of Vaccine Lymph." The description given by Jenner in the *Inquiry* was the first published account of cowpox. It was soon after more minutely described by Clayton, a veterinary surgeon in Gloucestershire, and, still later, this account was corroborated by Mr. John Sims and by others. Ceely's experiences are given in detail, accompanied by admirable reproductions of his colored plates, and the subject of casual cowpox in man is fully treated.

For an account of the disputed question of the connection between "grease" in the horse and cowpox in the cow we must refer our readers to the volume before us. The author devotes many pages to its consideration, but the limited space at our disposal permits us merely to notice it.

We regret to find that the results of Professor Crookshanks' investigations, beginning with a depreciatory view of the unselfish labors of Jenner, and ending with a page or two on the great subject of the prevention of smallpox by vaccination, are such as to hamper the efforts of those who are making smallpox take its place as a disease of the past along with the plague, typhus, sweating sickness, and other vanquished enemies of the human race. Had the author spent the winter of 1885-6 with us in Montreal and witnessed the awful mortality amongst the unvaccinated, had he seen how smallpox picked out its victims, whether isolated or not, he would never have been guilty of expressing the opinion that when isolation and vaccination have been carried out in the face of an epidemic, that it is to the isolation that the credit of stopping the disease is due.

It is remarkable, too, that after spending so much time, and taking up so many pages, in producing two enormous volumes full of extracts and manifold varieties of padding, he should have disposed of this question in a few words at the end of his first volume, words which will be read and quoted by mischievous persons who will never have the necessary perseverance and industry to read the hundreds of pages and innumerable quotations which precede the unwarrantable opinions the author has thought proper to enunciate.

Of the second volume we have nothing to say, because it consists merely of a number of essays by various authors. Its publication as a second volume uniform with Professor Crookshanks' work cannot be regarded but as an attempt to swell out to abnormal proportions a work which contains the result of some really careful inquiry, but which, if deprived of all that was not written by the author, would shrink into very insignificant proportions.

**Bacteriologische und Pathologisch-Histologische.**  
Uebungen für Thier arzte. (Practical Course in Pathology and Bacteriology for Veterinarians.) By Th. Kitt, Munich.  
Vienna: Moritz Perles; pp. 328.

The want of some such book as this has long been felt by those who have had to instruct veterinary students in practical pathology. The veterinary practitioner, far more even than the medical, must keep himself practically posted in pathological methods. In spite of this, there is not at the present time a book in any language where this subject is satisfactorily treated.

Prof. Kitt has written not only a thoroughly good book, but one that is made throughout interesting and pleasant to read, from its easy conversational style. The subject is treated in a manner suited to the wants of practitioners who wish to take a post-graduate course and learn the technique in a limited time. The book has met with a large sale in Germany, and is much used as a text-book for students. For this latter purpose it was not intended, but is at the present time the only one available. The only text-books at present obtainable are altogether out of date, and, having been written at a time when next to nothing was known of disease in animals, they all show the same fondness for theorising and disregard of fact which characterized text-books on human pathology written before Virchow's time.

We learn, therefore, with great pleasure that Professor Kitt is also preparing a text-book on comparative pathology of about the same scope as that of Ziegler. It is sure to be a good one, and we can, while heartily recommending the present book to those interested in the subject, only hope that both it and its

successor will be translated and made available to English readers. The value of the work is increased by a large number of original micro-photographs. The get-up and printing of the book are both good.

**Cyclopædia of the Diseases of Children, Medical and Surgical.** By American, British, and Canadian Authors. Edited by JOHN M. KEATING, M.D. Vol. II. New York: J. B. Lippincott Company.

The second volume of this magnificent work fully fulfils all the promises made by the first.

*Part I.* is devoted to the diseases of the skin, which are treated of in a series of articles written by Hyde, Hardaway, Bulkley, Van Harlingen, and others. That on Eczema, by Van Harlingen, is one of the most important. As regards its etiology, the author takes the middle course, and, while urging a careful examination into every weak point in diet, hygiene, hereditary tendency, and general nutrition, he would at the same time enforce the necessity of extreme attention to local treatment, on which his directions are very full. Dr. J. E. Graham, of Toronto, writes on the Hypertrophies and Atrophies in a short, practical article. The Parasitic Diseases are treated by Stelwagon. His remarks on the treatment of tinea tonsurans are disappointing through their brevity.

*Part II.*, treating of constitutional diseases and diseases of nutrition, begins with an excellent article on Scrofulosis, by Henry Ashby of Manchester. It is well up to date. He thinks it wise, in the present state of our knowledge, to give the term only a clinical, and not any definite pathological meaning. The distinctive characteristics of scrofulous lesions are, he says, only clinical; such as their chronicity, their tendency to spread locally, and their tendency to caseate and to involve the lymphatic tissues. He considers that many of the lesions present are unquestionably tubercular, but others, he thinks, are not. He does not wholly agree with Unna in regarding impetigo as a skin tuberculosis, but thinks that the order of events may usually be stated as follows: (1) an impetigo or ozæna or irritation caused by den-

tition—non-tubercular ; (2) secondary enlargement of lymph-glands—non-tubercular ; (3) caseation of lymph-glands—tubercular. How the bacilli find entrance can often only be conjectured, but they seem to be able to start a tubercular process only in those parts which are in an inflamed or unhealthy condition, and therefore find in the congested or chronically inflamed glands a suitable nidus. Cod liver oil and the iodine preparations, with very careful local measures, is the only treatment recommended. Tuberculosis is very thoroughly treated by Dr. Jacobi, and Syphilis by Dr. Abner Post. Dr. Barlow, of London, contributes very interesting and exhaustive articles, with good illustrations, on Rachitis and Scurvy. Then follows a paper on the Urinary Diatheses, by J. Milner Fothergill. From an appended foot-note we learn that this was the last work of this writer. It is a most interesting article, and should be very generally read. How far this uric acid formation in children is to be regarded as an etiological factor in the production of scrofula, defective or imperfect organisms, the neurotic temperament, biliousness, and chronic Bright's disease, must for the present be only a matter of conjecture, until more complete investigations give us a surer foundation. There are many, probably, who will hesitate to go as far as the author, but the paper is teeming with suggestive thought and will well repay the perusal of every practitioner. An article on Cretinism, by Bury, and one on Diabetes Mellitus, by George B. Fowler, complete Part II.

*Part III.* is devoted to diseases of the respiratory tract, and begins with a series of articles on Diseases of the Nose, including Nasal Obstruction, by J. N. Mackenzie ; Reflex Cough, by A. W. McCoy ; Epistaxis, by E. C. Morgan ; Foreign Bodies and Tumors in the Nose, by D. Bryson Delavan ; Acute Coryza, by Carl Seiler ; Rhinitis Hypertrophica and Atrophica, by W. C. Jarvis ; and Croupous Rhinitis and Purulent Rhinitis, by F. H. Bosworth. Diseases and Injuries of the Pharynx are described somewhat briefly by E. Fletcher Ingals, and Beverley Robinson contributes an article on Diseases of the Tonsils. Amongst the articles devoted to the larynx there is an excellent one on Intubation, by William Northrup, who also writes on



Spasmodic and Pseudo-Membranous Laryngitis. Tracheotomy is very fully described by H. R. Wharton. In the section on diseases of the lungs the articles are full and exhaustive. The principal ones are written by Minot, Morrill, Shattuck and Whittier, of Boston, and Jacobi of New York.

In *Part IV.*, the articles on the diseases of the circulatory system have been contributed principally by English writers. Dr. Osler contributes a short but excellent *resumé* of the Congenital Affections of the Heart. Dr. Cheadle contributes an article on Acute Endocarditis; and Dr. Sansom one on Chronic Endocarditis, both of which are of great value. Dr. Mitchell Bruce writes on Enlargement of the Heart.

In *Part V.*, a series of articles on diseases of the mouth, jaws and tongue, complete the volume.

As a whole, this volume fully sustains the high standard of excellence reached by the first, while its illustrations are more numerous and, we think, of greater worth.

A. D. B.

---

### Society Proceedings.

#### MEDICO-CHIRURGICAL SOCIETY OF MONTREAL.

*Stated Meeting, 24th January, 1890.*

G. E. ARMSTRONG, M.D., PRESIDENT, IN THE CHAIR.

*Myoma of the Uterus.*—DR. W. GARDNER exhibited a specimen of myoma of uterus of the submucous variety, there being little uterine tissue existing between the uterine cavity and the tumor itself. The patient was 45 years of age, and had suffered for the last ten years from menorrhagia, headache, confusion of thought, pelvic pain, and general invalidism. Apostoli's method of treatment had carefully been carried out, but without much benefit, so the tumor with the ovaries (these being situated so low at the base of the tumor and cystic) were removed by the extra-peritoneal operation, patient making a good recovery.

*Soft Myoma with Cystic spaces.*—DR. GARDNER exhibited this specimen, and said that the patient from whom this tumor had been removed suffered only on account of its size: the diag-

nosis was doubtful, because of its being soft and fluctuating, and it was a question of fibroid or myoma of the uterus. The extra-peritoneal method of operation was performed, followed by good recovery of patient. This patient had, however, during the course of her illness a slight phlebitis of the left leg. He would venture no explanation pathologically of the specimen, but regarded it as fibro-cystic from its macroscopical appearance.

*Fibro-cystic Tumor of Uterus.*—DR. SMITH said that the patient whom this tumor had been removed from had been treated by him with apparently good deal of benefit by means of Apostoli's method for three months, and within two months after treatment size of patient had diminished three inches. Just before starting for home menses appeared and lasted seventeen days, followed by severe pains in left iliac region. Operation for removal of the tumor was successfully performed, the extra-peritoneal method being adopted.

*Nine Cases of Hysterectomy for Fibroid of the Uterus, with a new method of treating the stump.*—DR. TRENHOLME read a short paper on this subject.

*Discussion.*—DR. W. GARDNER said that the extra-peritoneal method was early used in Schröder's clinic and with 32 per cent. deaths. He himself always uses the Kœberle method; theoretically the intra-peritoneal method was better. The situation of the wire in Kœberle's method was the same as Dr. Trenholme's. Dr. Gardner found hempen ligature strong enough; the pins he found prevented the mass from moving, and leaving them in until they sloughed through prevented unfavorable vomiting or straining of any kind. He leaves the pins in from ten to fifteen days, and cuts the wire after from forty-eight hours to six days. Dr. Gardner has had ten cases with nine recoveries.

DR. SMITH was struck with the ease by which the uterus could be ligated by the method proposed by Dr. Trenholme.

DR. TRENHOLME, in reply, said he had found that there was little pain attending the use of this ligature. He thought that the hempen ligature would give a broader surface for adhesion than a wire one would. Lays no stress on stretching of the wound, as the snare is sufficient to hold the stump.

DR. FOLEY made a few remarks regarding the relationship between dermatology and gynæcology, and said that certain vascular conditions, neuroses, eczema or acne were all associated with menstrual disorders. Even some cases of severe eczema had yielded to treatment after the repair of a lacerated cervix.

DR. JACK thought that the conditions of the skin were due to a vulnerability of the elements of the skin and not to disorders of the functions of the uterus.

---

*Stated Meeting, 7th February, 1890.*

G. E. ARMSTRONG, M.D., PRESIDENT, IN THE CHAIR.

*Aneurism of Arch of Aorta.*—This was exhibited by DR. JOHNSTON for Dr. MacDonnell. The only attachment of the aneurism was to the left side of the trachea, just above the bifurcation. The trachea was moderately compressed; no erosion present. The left pneumogastric showed marked atrophy. At the spot where it passed over the aneurism it was flattened and widened for an area of half an inch. The left recurrent laryngeal was atrophied. The orifice of the right subclavian was narrowed as to barely admit a No. 5 catheter. Patient was a navy, and was seized about October last with cough and dyspnœa. There was found to be dulness below clavicles, contraction of left pupil, tugging at the trachea, hoarseness and brassy cough. Dyspnœa increased to such a degree that venesection was performed and followed by a partial relief. The dyspnœa increased three days later, patient succumbing to it.

DR. MACDONNELL showed a photograph of a patient who had suffered from aneurism of the descending aorta, attended with unilateral sweating. Unfortunately no post-mortem was allowed.

DR. JOHNSTON said he had examined the body externally after death, and found that the tumor was very tense and fluctuating, giving the impression of a closed cyst. This seemed to prove that the pulsating swelling in the back was not a part of the original aneurism, but a pulsating hæmatoma caused by the sac having perforated posteriorly into the tissues of the back.

*Chronic Pyelitis.*—The bladder showed a chronic cystitis.

In the prostate was a cavity with firm granulating walls containing a small calcified nodule. One kidney was converted into a thin-walled sac full of thick inspissated pus; the other showed commencing suppurative pyelitis. The history of this case was: Patient entered the General Hospital suffering with a distended bladder; urine could only be passed in drops, but after introducing a filiform bougie the urine passed a little more freely. A stricture in the penile portion of the urethra was detected, and this was cut through by the urethrotome. Soon afterwards pus appeared in the urine; the amount of urine passed per diem gradually decreased, and finally patient died.

*Laceration of Urethra.*—DR. JOHNSTON showed a specimen of extensive laceration of the urethra, produced by passing a catheter for retention of urine for a comparatively slight stricture. The patient had a chill, followed by a temperature of 107°F., and died within five hours, having passed his urine freely after the operation. There was no urinary infiltration, hemorrhage or sloughing in the neighborhood of the laceration, which was situated beyond the bulbous urethra.

*Necrosis of Femur.*—DR. HINGSTON exhibited the lower half of a femur from a case in which he had performed amputation on account of extensive necrosis of the lower end of the femur. The specimen showed a small opening at the posterior part of the bone, and when a longitudinal section had been made, this opening was found to communicate with the medullary cavity, the walls of which had undergone most extensive caries.

*Appendicitis.*—DR. SHEPHERD exhibited an appendix which he had removed from a child who had only been ill two days with slight right iliac pain and tenderness. The bowels were moved by purgatives, but without relief. Operation for removal of appendix performed next day; severe vomiting came on, accompanied by protrusion of three feet of intestine; peritonitis developed, followed by a fatal result.

DR. BLACKADER, who was in attendance on the child, said the family history was of peculiar interest. He had attended the mother for an attack of ante-partum peritonitis; two children had died from appendicitis, and another child had succumbed to an attack of peritonitis.

The PRESIDENT here related a case of a man, aged 32 years, who for the last year and a half had had several attacks of appendicitis. Last January he suffered with "la grippe," and subsequently was seized with severe abdominal pains, which salines only partially relieved. Decided to operate, and after opening the abdomen found abscess cavity in right iliac fossa enclosed by knuckle of bowel. The appendix had sloughed off, and found to contain the raspberry seeds. No opening in bowel discovered. Patient made a good recovery.

*On Abdominal Section in Tubercle of the Peritoneum and Uterine Appendages.*—DR. W. GARDNER read the paper, a report of which is to be found on page 641.

*Discussion.*—DR. SMITH said that if the disease originated in the tube the prognosis was bad. He thought that the ingestion of tubercular food was a cause of tubercular peritonitis.

DR. JOHNSTON remarked that he had seen at autopsy tubercular peritonitis in which this was not the actual cause of death, and the person had apparently lived without any evidence of it.

DR. ALLOWAY said he thought Dr. Gardner was to be congratulated upon having been able to collect so many interesting cases of this rare disease. He did not think any surgeon had, up to the present time, published the complete histories of so many cases of tubercular peritonitis. He thought that it was a condition more prevalent than was generally considered, and that our knowledge upon this point was due to the rapid strides abdominal surgery had taken of late years. He also thought that many cases of severe pelvic inflammation and death following comparatively trivial operations upon the uterus without due care to antiseptic precautions were probably due to the lighting up of a latent tuberculosis in subjects predisposed by heredity to that disease. He was therefore exceedingly careful with so-called delicate women when he found it necessary to operate upon the uterus or vagina. Dr. Alloway related the case of a lady operated upon by the late Dr. J. M. Drake (dilating the uterus and applying nitric acid to the endometrium), where death took place on the fourteenth day after the operation from general peritonitis. At the autopsy the whole peritoneum was found studded with

miliary tubercle. Whether laparotomy and washing out the cavity with water should have the credit of benefitting these patients, or that time and medical care would do the same for them, it is impossible to say. Certainly the majority of such cases that have been operated upon by accident have been improved, and many have remained free from pain and malnutrition for years afterwards.

DR. BELL did not think that abdominal section was called for in cases where the diagnosis was certain, as he could not see what beneficial result would follow such a procedure ; but would advocate such operation only in cases of doubt.

The PRESIDENT remarked that where the operator can find a local focus, then its removal would probably be followed by benefit, but merely opening and closing the abdomen was going to do little good. Until we know the life history of tubercular peritonitis we can expect to do little for such cases.

*Trichorrhæxis Nodosa*.—DR. FOLEY exhibited a specimen, showing the whitish nodules resembling nits and the split or green stick fracture appearance of the hair.

---

## HAMILTON MEDICAL AND SURGICAL SOCIETY.

*Stated Meeting, Feb. 4th, 1890.*

J. W. ROSEBRUGH, M.D., PRESIDENT, IN THE CHAIR.

*Dislocation of the Foot Backwards*.—DR. WM. McCARGOW read the following notes of this case :—

The subject of this accident, a large, stout woman, aged 60, I first saw at Oneida, County of Haldimand, August 1858, along with Dr. Jacob Baxter of Cayuga. She stated that three months ago she received a fall, displacing the ankle-joint ; that she was treated for it by a medical man in her neighborhood, who failed to reduce the luxation, and left her in her present state. She also stated having consulted other medical advice without benefit. Upon examination the foot is found to be displaced backwards, with shortening of the foot and lengthening of the heel, with a depression above the latter. The toes are pointed downwards, and the extremity of the tibia forms a projection in front of the

ankle. I gave her to understand that it might not be too late to remedy the displacement so that she could walk. At this time the way she went about the house was only by resting the injured limb on a chair, and with the aid of the other and carrying the chair, move about in that way. Having willingly agreed to an operation, a plaster cast of the limb was taken. On the 7th September, assisted by Dr. Baxter and Mr. Farrell (subsequently a graduate of Royal College of Kingston), the patient having been duly placed under chloroform, an attempt was first made at reduction by the aid of a Jarvis adjuster. Not succeeding by what was considered by us as a fair trial, I divided the tendo-Achilles, when reduction with the hands was easily effected. The fibula, broken in the usual place in like cases, was ununited. The chief after-treatment of the case consisted in keeping the end of the tibia in place with due support of the heel and foot, which was done by a well-fitting anterior tin-splint with foot piece, such as Dr. Kerr of Galt was in the habit of using in simple fractures of the leg near the ankle-joint. She recovered with a stiff joint. Passive motion was advised after the removal of the splint, but insufficiently used by her husband, and the distance from my house in Caledonia being some sixteen miles, it was out of my power to attend to it. I saw the patient some years subsequently at the house of her son in London, Ont., when she was well and had good use of the foot.

This dislocation is very uncommon, which is my only excuse for bringing this case before the Society. The tibia rests in these cases from half an inch to three-quarters of an inch in front of its proper place.

## Selections.

**The Prevention of Tuberculosis.**—In the course of the debate which has been proceeding for some time past in the Academy of Medicine of Paris, and was concluded last week, there has been a republication of curious edicts and rules intended to prevent the spread of tubercular disease among members of communities. Thus M. Germain Sée drew attention to one of those edicts passed over a hundred years ago, namely, in the year 1782, when the King of Naples proclaimed as law : (1) That every physician in practice should be bound rigorously to furnish indications to the authorities as soon as he had discovered phthisis in any of his patients, and if he neglected this announcement should be amenable to a fine of one hundred ducats, and in case of repetition of the offence be condemned, without appeal, to banishment for ten years. (2) That the sick, after the discovery that they were suffering from phthisis pulmonalis, should be taken immediately to the hospital. (3) That the directors of hospitals should be obliged to keep separate the clothes and the linen belonging to the phthisical, with an inventory of all the clothes that had been worn by every individual certified as being tuberculous, and that after the death of such person the director or manager should prove that all parts of the clothes were still present, any infraction of this part of the decree being punishable by imprisonment or even the galleys. (4) That the authorities should be empowered to renew the sick-chambers in which phthisical persons had been lodged ; that is to say, the flooring of the chamber, the bed-clothes and the hangings of the bed, and should remove and burn the windows and the doors and replace them by new ones. (5) That severe penalties should also be inflicted on those who bought or sold effects belonging to the phthisical. (6) That every house in which a phthisical patient died should be put under ban, and its proprietor be reduced to the loss of it.

These proscriptions, M. Germain Sée said, were only a copy of still older regulations which had been brought into force against the plague in former times ; and the same rules were



applied in Portugal. In the kingdom of Naples this law was applied in all its rigor until the year 1848, and what was the result? The result generally was an evil incalculable. What was the result to the sufferers from tuberculosis? Nothing. The vigorous application of the law for two or three generations to those who were the victims of phthisis proved that it was without the least effect. No Neapolitan or Portuguese physician could verify the slightest diminution of phthisis during all this time.

These, says M. Germain Sée, are the results of ignorance; ignorance of the laws which govern the transmission and spread of the most fatal of human diseases among civilized nations. And now what is the true knowledge which M. Germain Sée would have us accept? He himself is as rigorous as the King of Naples ever was in regard to rule and ordinance, only his rule is infinitely simpler, and is one which every nurse could follow without injury or annoyance to any one—a rule which we hope every English nurse does follow scrupulously. The rule is to do away with the sputum expectorated by the phthisical or to destroy it; then all is said that can be said if this rule be correct.

As will be inferred, M. Germain Sée is a valiant partisan of the school of contagionists. In his eyes heredity as a factor in phthisis plays a very inferior part; and if his points were altogether admitted, the part allotted to it would, at the best, be secondary. Take away, he would say, the cause, the source of contagion, and by the act you take away the heredity, since heredity itself requires a root from whence to spring. But he lays himself open to question by his opponents when, in his zeal, he sums up the difficulties lying in the path of all true inquirers into primary causes by attributing every failure to ignorance of the hypothesis, or, as he designates it, the law of the transmission of the tuberculous bacillus. This is not just. It is but fair to assert that they who do not admit the premises of the contagionists are *not* ignorant of those premises. Opponents of the hypothesis may know the hypothesis as well as the contagionists themselves, but, knowing it, they may not accept the validity of it with such assurance of its certainty as to become convinced

of its truth. They may see, in brief, so much evidence in favor of the older and longer recognized views that they feel bound to hesitate, and when they hear of such facts as are disclosed in the working of the edicts of the King of Naples they naturally may hesitate the more. In the English medical fields of controversy the battle on this subject has scarcely commenced in earnest. A good number of men, led into the contagionist camp rather by the novelty of the work there than by the satisfying character of it, have created an impression, and on the question of diagnosis have created an exceedingly strong impression. But the masses of the profession are still in doubt, and before the parasitic and transmissible nature of phthisis is so far proved that the hereditary nature of the disease may be put aside a generation of controversy of the severest kind must be carried out. And, in a matter so momentous, the labor of a generation is worth all the time and all the trouble, since, whichever side ultimately wins, the world at large will, perforce, be the greatest gainer. We have singled out the remarks of Prof. Sée in order to contrast, for the nonce, the two kinds of teaching on this important matter; but we propose shortly to review the whole discussion, which, it must be confessed, came to a rather impotent conclusion.—*London Lancet.*

### **The Relation of Dusty Occupations to Pulmonary Phthisis.**—(By DR. W. B. CANFIELD.)

This question is by no means new, but it has always been of great interest to those who have much to do with diseases of the lungs. The pulmonary diseases caused by the inhalation of different kinds of dust have received a variety of names, according to the kind of dust inhaled; but collectively they are all covered by the name "pneumoconiosis." The pathology of these conditions was not clearly understood. They were spoken of as "miner's consumption," "grinder's consumption," etc., even when their tuberculous nature could not be proven. Even after Koch's discovery of the tubercle bacillus, and the gradually improved classification of the other classes of lung diseases, there seemed to be some doubt whether these dust diseases were tuberculous or not.

Most writers agree that the inhalation of non-tubercular dust can only produce a non-tubercular disease of the lungs. Naturally, the different kinds of dust, such as sand, coal, soot, slate, etc., when inhaled in large quantities, or by persons enclosed in a thickly-laden, crowded atmosphere (unventilated mines, etc.), gradually overcome the action of the ciliated epithelium, and penetrate to the alveoli of the lungs, whence they find their way by their sharp edges through the wounded endothelium—through the pseudo-stomata in the alveolar wall, or between the cells, through the *kittsubstanz* (Osler). Those that are not carried off, rendered harmless or devoured by the greedy phagocytes, remain in their subepithelial bed, and cause an irritation, a determination of blood, inflammation, and resulting hypertrophy and hyperplasia of the connective tissue of the lungs. There results, then, a fibroid condition of the lungs, a fibroid phthisis, or chronic interstitial pneumonia.

This condition seems to be produced by all kinds of dust indifferently when inhaled in condensed quantities. Fagge says that this condition is only tubercular when tuberculous matter enters; that the common occurrence of phthisis among miners is due to the crowded and unventilated condition of the mines, and to the great and sudden changes of heat and cold to which the miners are exposed. C. J. B. Williams thinks that the fibroid element seems to oppose a direct barrier to the growth and multiplication of the bacillus tuberculosis, and in large tracts of lung tissue which have been converted into this material, often not a bacillus can be detected. Moxon says that when they are found, it is because fibrosis has supervened on a tuberculous condition of the lungs. Watson Cheyne, Percy Kidd, Sir Andrew Clark, and others have also failed to detect bacilli in this condition. According to Orth, consumption is one of the rarest complications of miner's lung, and Kunze, after examining the lungs of those engaged in a variety of dusty occupations, concludes that if tuberculosis is present, it is almost an accident, or was present before the patient began this occupation. The most recent literature on this subject is to be found in the Milroy Lectures on Occupations and Trades in Relation to Public Health, by John T. Arlidge, M.D., and B.A. London.

Although a fact founded on one case, perhaps imperfectly reported, may be of little value, I have thought it worth while to present the following case :—

J. M., Welshman, aged 56, was admitted to hospital about February 1st, 1888, with the following history, imperfect on account of his want of familiarity with the English language. As a boy he had been well, and had been in health up to two years before, in Wales, where he “took a cold,” which, growing worse, entirely unfitted him for his work, which was that of a miner. On inquiring more particularly as to his occupation, he said that he had been employed for about fifteen years in the slate mines of Wales, and his particular work was to split the slate. He said that there was always slate dust flying about in the air; but not in such quantities as in coal mines. Upon questioning him further, he said that the slate miners were frequently affected with a cough and a profuse gray or blackish expectoration, and that they usually died from this cough at about fifty. He said their manner of coughing was very hard, and there was much wheezing and shortness of breath. While talking with him, I noticed that he was a tall man, slightly bent, with anxious countenance, showing that he was suffering from dyspnoea or imperfect oxygenation. In fact, he suffered so violently at first that it was very difficult to examine him, and most of the history was obtained at the end of his treatment. Inspection showed a spare man with large chest cavity, but not barrel-shaped. On percussion, which was carried out with great difficulty, a possibly increased dulness was heard over the right apex in front and at the base behind. The left lung was slightly hyper-resonant from increased work. The vocal fremitus was not markedly different on the two sides. Auscultation gave coarse and fine mucus, and dry, sonorous and sibilant râles with expiration and inspiration over the whole chest, the expiration being much prolonged. Cough and shortness of breath were the troublesome symptoms, as was shown in his anxious expression, and in his entire inability to lie in the horizontal position. His expectoration had been dark and also grayish-black; but recently it was white, as it was when I saw him. In

order to promote expectoration, I put him on oil of turpentine in fifteen minim doses in mucilage of acacia, cinnamon water and water three times a day.

R. Ol. terebinthin., - - ʒiii  
 Mucilag. acac., - - q.s.  
 Aquæ cinnamon, - - ʒss  
 Aquæ q.s. ad, - - ʒvi

S. Take a tablespoonful, well diluted, three times a day, But as it produced nausea, I changed to the iodide of potash. with muriate of ammonia dissolved in brown mixture.

R. Ammon. muriat., - - ʒii  
 Mist. glycyrrhiz. co., - ʒiv  
 et adde  
 Potass. iodid., - - - ʒiii

S. Dessertspoonful, well diluted, three times daily.

This seemed to remove the mucus, but the dyspnœa still continued, and the râles, though dryer, were just as audible as before.

Dr. Fraser's article on "Dyspnœa in Bronchitis" having just appeared (*American Journal of Medical Sciences*, Oct. 1887), it suggested itself to me to use the nitrite of sodium, which resulted in removing much of the dyspnœa. During the whole time the sputum was examined for bits of slate dust or pigment laden cells; but they were not found. His diet was regulated and his bowels kept open. The urine was tested before turpentine was given, and albumen was found. It disappeared later.

A few weeks after he entered the hospital the sputum was examined for tubercle bacilli, not because I expected to find them, but because I had made it a habit to examine the sputum for them in every chronic case. They were found in abundance. Specimens of sputum were examined with care at short intervals, and the bacilli were always found, and in large numbers. This surprised me, as I had not thought it tuberculous, and had given a favorable prognosis. Now, however, I feared a bad prognosis. Notwithstanding this, he continued to improve under tonics, and returned to Wales in the spring. I have heard from him within

the last month, and he says he is entirely well. Whether the bacilli have disappeared or not, it is not possible to say. As I have examined the sputa for bacilli many times, I feel certain I made no mistake here, and yet it seems rather peculiar in this case.

Dr. G. Hunter Mackenzie says that the number of tubercle bacilli found in the sputa of any case does not seem to bear any reference to the severity of the cases, and that a case may go on for years with an enormous number of bacilli found at every examination, and yet be well in every other way.

The points of interest in this case are :—(1) Patient had no previous history of or predisposition to tuberculosis. (2) He contracted a disease with which tuberculosis is supposed to be very rarely present. (3) He had tubercle bacilli in his sputa in abundance. (4) He reports himself as entirely well.—*(Trans. of the Medico-Chirurgical Faculty of Maryland.)*

**Conclusions Reached by the Hyderabad Chloroform Commission.**—(1) The recumbent position on the back and absolute freedom of respiration are essential.

(2) If during an operation the recumbent position on the back cannot, from any cause, be maintained during chloroform administration, the utmost attention to the respiration is necessary to prevent asphyxia or an overdose. If there is any doubt whatever about the state of respiration, the patient should be at once restored to the recumbent position on the back.

(3) To insure absolute freedom of respiration, tight clothing of every kind, either on the neck, chest or abdomen, is to be strictly avoided; and no assistants or bystanders should be allowed to exert pressure on any part of the patient's thorax or abdomen, even though the patient be struggling violently. If the struggling does occur, it is always possible to hold the patient down by pressure on the shoulders, pelvis or legs without doing anything which can by any possibility interfere with the free movements of respiration.

(4) An apparatus is not essential, and ought not to be used, as, being made to fit the face, it must tend to produce a certain

amount of asphyxia. Moreover, it is apt to take up part of the attention which is required elsewhere. In short, no matter how it is made, it introduces an element of danger into the administration. A convenient form of inhaler is an open cone or cap with a little absorbent cotton inside at the apex.

(5) At the commencement of inhalation care should be taken, by not holding the cap too close over the mouth and nose, to avoid exciting, struggling, or holding the breath. If struggling or holding the breath do occur, great care is necessary to avoid an overdose during the deep inspirations which follow. When quiet breathing is insured as the patient begins to go over, there is no reason why the inhaler should not be applied close to the face; and all that is then necessary is to watch the cornea and to see that the respiration is not interfered with.

(6) In children, crying insures free admission of chloroform into the lungs; but as struggling and holding the breath can hardly be avoided, and one or two whiffs of chloroform may be sufficient to produce complete insensibility, children should always be allowed to inhale a little fresh air during the first deep inspirations which follow. In any struggling persons, but especially in children, it is essential to remove the inhaler after the first or second deep inspiration, as enough chloroform may have been inhaled to produce deep anæsthesia, and this may only appear, or may deepen, after the chloroform is stopped. Struggling is best avoided in adults by making them blow out hard after each inspiration during the inhalation.

(7) The patient is, as a rule, anæsthetized and ready for the operation to be commenced when unconscious winking is no longer produced by touching the surface of the eye with the tip of the finger. The anæsthetic should never under any circumstances be pushed till the respiration stops; but when once the cornea is insensitive, the patient should be kept gently under by occasional inhalations, and not be allowed to come out and renew the stage of struggling and resistance.

(8) As a rule, no operation should be commenced until the patient is fully under the influence of the anæsthetic, so as to avoid all chance of death from surgical shock or fright.

(9) The administrator should be guided as to the effect entirely

by the respiration. His only object, while producing anæsthesia, is to see that the respiration is not interfered with.

(10) If possible, the patient's chest and abdomen should be exposed during chloroform inhalation, so that the respiratory movements can be seen by the administrator. If anything interferes with the respiration in any way, however slightly, even if this occurs at the very commencement of the administration, if the breath is held, or if there is stertor, the inhalation should be stopped until the breathing is natural again. This may sometimes create delay and inconvenience with inexperienced administrators, but experience will make any administrator so familiar with the respiratory functions under chloroform that he will in a short time know almost by intuition whether anything is going wrong, and be able to put it right without delay before any danger arises.

(11) If the breathing becomes embarrassed, the lower jaw should be pulled, or pushed from behind the angles, forward, so that the lower teeth protrude in front of the upper. This raises the epiglottis and frees the larynx. At the same time it is well to assist the respiration artificially until the embarrassment passes off.

(12) If by any accident the respiration stops, artificial respiration should be commenced at once, while an assistant lowers the head and draws forward the tongue with catch-forceps, by Howard's method, assisted by compression and relaxation of the thoracic walls. Artificial respiration should be continued until there is no doubt whatever that natural respiration is completely re-established.

(13) A small dose of morphia may be injected subcutaneously before chloroform inhalation, as it helps to keep the patient in a state of anæsthesia in prolonged operations. There is nothing to show that atropine does any good in connection with the administration of chloroform, and it may do a very great deal of harm.

(14) Alcohol may be given with advantage before operations under chloroform, provided it does not cause excitement, and merely has the effect of giving a patient confidence and steadying the circulation.

The Commission has no doubt whatever that, if the above rules be followed, chloroform may be given in any case requiring an operation with perfect ease and absolute safety so as to do good without the risk of evil.—*Lancet*.



THE

# Montreal Medical Journal.

VOL. XVIII.

MARCH, 1890.

No. 9.

---

---

## THE CHLOROFORM QUESTION.

As a result of the report made by the Hyderabad Commission, the question of the merits of chloroform are attracting great attention. This Commission, of which Dr. Lauder Brunton was a member, performed a great number of experiments, principally on dogs, with the view of definitely settling the vexed question of how chloroform kills. Ever since the introduction of this agent there have been two rival theories as to the way this lethal effect is brought about. One of these views, mainly held by Edinburgh surgeons and their disciples, was that chloroform induced death by paralyzing the respiration; the other view was that death almost invariably occurred from cardiac failure.

The experiments performed by the Hyderabad Commission were of two kinds—one being conducted to elucidate what influence is exerted by various conditions upon the relation between cardiac and respiratory arrest, and to point out how far methods at resuscitation are useful; the second group of experiments, made with recording apparatus, were performed to ascertain the effect of chloroform on the heart and blood-pressure. In the first series, 430 experiments were performed mainly on dogs, with the uniform result that in every case where chloroform was pushed the respiration stopped before the heart. The chloroform was administered in various ways, alone and with morphine, atropine and strychnine. Animals were experimented on who were healthy and suffering from disease. It was given on a full stomach and on an empty one, but no matter what the condition was, the result was invariably respiratory before cardiac failure.

Upwards of 150 experiments were performed to ascertain the influence of chloroform on the heart and blood-pressure, particular attention being directed to demonstrate the influence of all possible conditions that seemed at all likely to affect the blood-pressure during the period of chloroform narcosis.

The conclusion arrived at by the Commission from these experiments is that when chloroform is given continuously by any means which ensures its free dilution with air it causes a fall in the mean blood-pressure. As this fall continues, the animal first becomes insensible, then the respiration gradually ceases, and, lastly, the heart stops beating. However concentrated the chloroform may be, it never causes sudden death from stoppage of the heart.

The above conclusions are directly opposed to the conclusions arrived at by a committee appointed by the British Medical Association a few years ago, and also to the experiments on animals by many independent investigators.

Drs. H. C. Wood and Hare of Philadelphia have recently (*Medical News*, Feb. 22, 1890) investigated this subject, and they arrive at the conclusion that it is possible for the heart and respiration to be practically simultaneously paralyzed by chloroform, and, further, that cardiac arrest may occur before respiratory arrest. They distinctly reaffirm the soundness of the opinions almost universally held up to the present time, "that chloroform acts as a powerful depressant poison both in respiration and circulation; that sometimes the influence is most felt at the heart, and death results from cardiac arrest; that in other cases the drug primarily paralyzes the respiratory centres, whilst in other instances it seems to act with equal force upon both medulla and heart."

The experiments of the Hyderabad Commission were conducted with the greatest care, and the only possible way to reconcile the conflicting statements of such competent observers in India, England and America is that the dogs in India are affected differently from those in England and America. After all, it is a very secondary matter how chloroform kills a dog; the living question is, *How does it kill man*, and what are the best means for combating this lethal tendency?

On this great question the Hyderabad Commission say that the effects of chloroform are indetical in the lower animals and in the human subject. This surprising statement is followed by the recommendation that the administrator should be guided as to the effect entirely by the respiration. "His only object, while producing anæsthesia, is to see that the respiration is not interfered with." They are further of the opinion that if the directions given by them in respect to attending to the breathing are closely followed, chloroform may be given in any case requiring an operation with perfect ease and absolute safety so as to do good without the risk of evil. As an editorial in the *Lancet* has it, "The practical outcome of the research would appear to be that deaths from chloroform are not inevitable. They are therefore preventible, and by due care in its administration they may be with certainty avoided."

These very extraordinary statements are made with an assurance which will carry conviction to the minds of many medical men, and the inevitable result will be disastrous. If there is a surely established clinical fact, it is, in our opinion, that chloroform does cause death by directly paralyzing the heart, and the only way to prevent and combat this paralyzing influence is to watch the pulse and resort to those measures which experience has shown to be useful in such conditions. Inversion of the patient and the employment of hot applications to the cardiac region are the most trustworthy.

To advise that the administrator should watch the respirations only is going back to that early period in the history of chloroform anæsthesia when clinical facts derived from its action on man were few.

---

## THE PNEUMONIC COMPLICATIONS OF INFLUENZA.

A very striking feature of the recent epidemic of influenza was the complications of bronchitis and pneumonia. In some parts the frequency of the latter complication was so marked as to lead one distinguished observer (Nothnagel) to suggest that there was a veritable endemic of pneumonia in addition to the influenza epidemic. As pointed out by Kundrat, lobular pneu-

monia was more frequent than lobar pneumonia. The same observer points out several features in the character of this lobular pneumonia which distinguishes it from the ordinary lobular pneumonia which attends bronchitis and the acute infectious diseases. In the first place, the exudate was richer in fibrine than that seen in ordinary lobular pneumonia. It did not affect only the lower and posterior parts of the lungs as the ordinary lobular pneumonia does, but involved also the anterior and superior of the lung as well. The infiltrated patches were much larger than usual, and their centres were usually found in a state of suppurative destruction, resembling in this respect the pneumonic patches that are found in the lungs of horses who have suffered from influenza. Suppurative pleurisy was a feature of most of these cases also.

---

### INFLUENZA.

Prof. Weichselbaum of Vienna has published a report of the results of bacteriological examinations in cases of influenza. (*Wiener med. Wochenschrift*, No. 6, 1890.) The sputum was examined microscopically and by means of plate cultures in 21 cases, in every case showing the pneumococcus to be present, but with only one-third of its usual virulence. In only two of these cases did pneumonia actually occur. The bodies of ten patients who had shown symptoms of influenza, some with and some without lung complications, showed the pneumococcus in every case. Prof. Weichselbaum does not consider, however, that this parasite is the cause of the disease, but that its rôle is only secondary. It is well known to be frequently found in the upper respiratory tracts of healthy persons. In two cases where the blood was examined microscopically for bacteria the result was negative. In one case where symptoms of acute nephritis appeared the urine contained abundant pneumococci. No pneumonia was present and the patient rapidly recovered.

Prof. Klebs has published a short article (*Centralblatt für Bacteriologie*, Jan. 24, 1890) in which he states that in the earliest stages of a number of cases of influenza, he found a flagellate protozoon present in large numbers in the blood. This

was similar to the hæmatozoon found in malaria, but smaller; occurred in and between the red corpuscles; stained with methylene blue; was present in great numbers in the blood of two fatal cases. He found bacteria to be absent from the blood in these cases. He did not succeed in tracing the life cycle of the parasite or in cultivating it outside the body. He thinks the lung respiratory affections occurring in the disease are secondary and not due to any specific microbe. He thinks that the fact that cases of influenza after a certain lapse of time get well spontaneously, and that many of the cases afterwards tend to relapse, is to be explained as showing definite phases of development of the parasite, as is the case in malaria and relapsing fever. No facts are adduced, however, to support this statement. He thinks the animalcules are probably to be sought for in the air.

Professor Rippert of Bonn reports finding the streptococcus erysipelatosus in the sputum of cases of influenza. It was found in the lungs and trachea of five cases.

### CLINICAL PSYCHIATRY.

Active steps are being taken to establish, in London, an hospital for the treatment and teaching of insanity. In connection with it there will be a staff of thoroughly experienced physicians, whose duty it will be to promote the scientific study of mental disease. The movement is one of great importance in the interest of the progress of psychiatry as a study, to which it will undoubtedly give a wholesome and much needed impetus. It will also be the means of enabling future practitioners to see and know something of these important class of diseases before they graduate.

## EDITORIAL NOTES.

—From a very interesting report presented to the British Medical Temperance Association it appears that there is a very marked decrease in the amount of alcohol prescribed in 113 hospitals from which a report was received. Collectively the decrease amounts to nearly 50 per cent. as compared with a period twenty-five years ago. There is no doubt that, as a rule, alcohol is too freely and frequently given to hospital patients.

—There is a very instructive lesson to be gathered from the English mortality returns from tuberculosis during the past forty years. In the ten years from 1851 to 1860 the number of deaths from tuberculosis in persons from 15 to 45 years of age amounted to 3,943 in every million. From 1861 to 1870 it had fallen to 3,711. In the following decade, 1871 to 1880, it was 3,194; and from the years 1881 to 1887 it did not exceed 2,666. The decreased rate is more marked in the female than the male sex. It is safe to prophesy that, as our knowledge of this disease increases, the deaths from it will decrease.

—Dr. Sloan of Blyth is a candidate for the representation of the Malahide and Tecumseh division in the Ontario Medical Council. Dr. Sloan is particularly well qualified for the position. For many years he has occupied in the great Huron tract a leading position as a medical practitioner. His popularity in the profession he owes to his ability and sterling integrity. Since the foundation of the Canadian Medical Association he has been one of its most active members, and he has always taken a lively interest in all matters relating to the advancement of the profession. In choosing him as their representative the members of the division will be conferring an honor on one of the most worthy members of the profession in Canada.

—A. Paltauf, Vienna (*Centralblatt f. Path.*) reports four cases where severe injuries and lacerations were not followed by any hemorrhages, though the patients lived ten to thirty minutes after the injury. In all these cases the injuries were multiple,

and in three some profuse hemorrhage had occurred elsewhere in the body. He explains the absence of hemorrhage by assuming that the shock of the injury produced spasm of the arterioles at the time, and that when this had passed away the lowering of the general blood pressure (from the combined influence of weakness of the heart and free bleeding from other vessels) made it impossible for the blood to be forced into the tissues. The importance of these observations is obvious with regard to testimony as to whether certain injuries were inflicted *intra vitam* or not; also as to whether multiple injuries, some of which alone show extravasation, could have all been inflicted simultaneously.

---

### Medical Items.

—Dr. Vipond (McGill, '89) has been admitted a Licentiate of the Royal College of Surgeons, Edinburgh.

—The chair of Physiology in King's College, London, is vacant through the retirement of Prof. G. F. Yeo.

—P. T. Hubert, M.D. (McGill, '89), has been appointed Medical Health Officer for the city of St. Johns, N.F.

—Thos. A. Woodruff, M.D. (McGill, '88) has been admitted a Licentiate of the Royal College of Physicians, London.

—Dr. Duquet, President of the Medical Board of Longue Pointe Asylum, has been made an associate member of the Medico-Psychological Association of Paris.

—It is said that upwards of four hundred graduates attended the New York Post-Graduate Medical School and Hospital during the year 1889.

—The chair of Physiology in the University of Vienna will be vacant, at the termination of the present academic year, through the retirement of Prof. Ernst von Brücke.

—Dr. Sims Woodhead, who, for the past three years, has been Director of the Laboratory formed by the Royal College of Physicians of Edinburgh, has been appointed to a similar position

in the Laboratory of the two Royal Colleges of London. The appointment is, we believe, a wise one, for Dr. Woodhead has proved himself to be a worker and investigator.

**BRAITHWAITE'S RETROSPECT.**—The 100th volume of Braithwaite's Retrospect, being the volume for the last half of the year 1889, has been issued. This periodical, in its long history, has been an admirable exponent of the current views in practical medicine and surgery. The one hundred volumes represent the medical thought of the last half century, a period so prolific in scientific progress.

—Nominations for the quinquennial election of the Council of the Ontario College of Physicians and Surgeons have been made. There are twelve territorial representatives on the Board. Out of these the following have been elected by acclamation:—Dr. Bray, Chatham; Dr. Ruttan, Napance; Dr. Orr, Maple; Dr. Day, Trenton; Dr. Williams, Ingersoll; Dr. Phillip, Brantford; Dr. Bergin, M.P., Cornwall. The remaining divisions will be contested as follows:—Malahide and Tecumseh, by Dr. Sloan, Blyth, and Dr. McArthur, London; Burlington and Home, by Drs. James Russel and T. Miller, Hamilton; Toronto, Midland and York, by Dr. Arthur Dukes Johnson, Toronto, and Dr. H. Machel, Toronto; Bathurst and Rideau, Dr. J. C. Cranston, Arnprior, and Dr. A. F. Rogers, Ottawa. Election takes place March 25th.

—The fifth annual meeting of the Association of American Physicians will be held at the Army Medical Museum Building, Washington, D.C., on the 20th, 21st, and 22nd of May, 1890. The following is the preliminary programme:—

*Discussions*—1. Disturbances of Sleep; referees, S. Weir Mitchell, Philadelphia, and Chas. F. Folsom, Boston. 2. Methods of Diagnosis in Diseases of the Stomach; referee, Francis P. Kinnicutt, New York.

*Papers*—1. Inflammations of the Appendix and Cæcum and the Duty of the Physician regarding them, Norman Bridge, Chicago. 2. Anæsthetic and Non-Anæsthetic Hysteria, Charles L. Dana, New York. 3. Seizures characterized by Shock and



Loss of Consciousness, Israel T. Dana, Portland. 4. The Diathetic Causes of Renal Inadequacy, I. N. Danforth, Chicago. 5. Certain Points relating to Tricuspid Endocarditis, with specimens, Wm. F. Gannett, Boston. 6. Antisepsis in Midwifery, Wm. T. Lusk, New York. 7. Varicose Aneurism of the Arch of the Aorta, Wm. Pepper and J. P. C. Griffith, Philadelphia. 8. Natural History of Typhoid Fever, J. E. Reeves, Chattanooga. 9. What can and should be done to Limit the Prevalence of Tuberculosis in Man? Edward O. Shakespeare, Philadelphia. 10. Migraine, Wharton Sinkler, Philadelphia. 11. Etiology of Pleurisy, especially in its Relation to Tuberculosis, A. A. Smith, New York. 12. Report of Cases of Angio-Neurotic Œdema, Samuel B. Ward, Albany. 13. Demonstration of Pathological Specimens, W. T. Councilman, Baltimore.

INVITATION FOR AN INTERNATIONAL MEDICAL AND SCIENTIFIC EXHIBITION.—In connection with the tenth International Medical Congress, to be held in Berlin between the 4th and 10th of August, there is to be an International Medical and Scientific Exhibition. The exhibits will be of an exclusively scientific nature, as follows:—New or improved scientific instruments and apparatuses for biological and strictly medical purposes, inclusive of apparatuses for photography and spectral analysis as far as applicable to medicine. New objects and preparations in pharmacological chemistry and pharmacy. New foods. New or improved instruments subservient to any of the departments of medicine, including electrotherapy. New plans and models for hospitals, convalescent homes, and disinfecting and bathing institutions and apparatus. New arrangements for nursing, including transportation, baths, etc. New apparatuses in hygiene. Applications or inquiries inscribed “Ausstellungs-Angelegenheit,” and accompanied with a printed card containing the name and address of the firm thus applying, ought to be directed to the Secretary-General, Dr. O. Lassar, Carlstrasse, No. 19, Berlin, N. W., Germany.