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Original Communications.

MALIGNANT DISEASE OF THE OESOPHAGUS.*

BY HERBERT A. BRUCE, M.D. TOR., F.R.C.S. ENO.,
Associate Professor of Clinical Surgery, University of Toronto.

It is not my intention to-night to take up exhaustively the whole subject of malignant disease of the œsophagus, but to show you specimens of special interest and of some rarity in connection with this disease.

The specimens are from a man, J. D., aged 36, who died on October 7th, 1898. He felt perfectly well until January last, when he first experienced difficulty in swallowing solid food. He vomited the first mouthful of food before a second could be taken; had pain at lower end of sternum and in the back. In May he was able to swallow liquid food only, and he was getting progressively weaker and losing flesh rapidly. I first saw him on August 7th, when his condition was as follows: Much emaciation, anxious expression, complaining of pain at lower end of sternum and in back over eighth and ninth D. V. Liver was enlarged and painful on palpation. Liver dulness (absolute) from sixth rib to one inch below costal margin in mammary line. No nodules felt. Nothing bearing specially on the case in the respiratory, circulatory or urinary systems.

An œsophageal bougie was passed (No. 22), and an obstruction was met with $16\frac{1}{4}$ inches from the teeth. There was no blood on the bougie after removal, nor in the mucus afterwards expectorated. On listening with a stethoscope over ninth D. V. while patient swallowed water, the water could

* Read before Toronto Clinical Society.

be heard for some seconds dropping into the stomach. He continued able to swallow liquids until his death, October 7th, 1898.

Autopsy.—Great emaciation. Omentum thickened at lower border with numerous small whitish nodules throughout it. Right lung adherent. Both lungs showed emphysema and collapse of lower lobes. Heart; eight ounces, valves normal, coronaries dilated and tortuous, some small thickened patches in visceral pericardium, even thickening of the endocardium. brown atrophy of the heart muscle. Spleen; enlarged, pulp increased and dark in color. Kidneys, both normal. Ureters and bladder, normal. Œsophagus; apparently normal in upper 2½ inches, from this down, small papillomatous growths are seen on the mucosa, larger posteriorly. These extend in a scattered way down to the cardiac extremity, varying from one-eighth to one inch, and are approximately oval in shape. The fræe surface is distinctly shaggy. At the cardiac extremity large masses of growth nearly surround the lumen and project inwards, almost closing the passage. The wall of the Œsophagus is thickened and densely fibrous in the lower inch and a half of its extent. These growths are hard, firm and solid throughout. Stomach inflamed; veins large and tortuous, walls thickened, capacity diminished. Lesser curvature and anterior surface of stomach adherent to under surface of liver. A large gangrenous ulcer on anterior wall extending to lesser curvature. This ulcer corresponds to the adherent part of the stomach. Adhesions between stomach and liver torn during manipulations, and two large openings made in stomach wall. Although cardia shows no gross signs of disease, microscopic examination demonstrates infiltration with the growth from the Œsophagus. Duodenum—mucous membrane and peritoneal covering normal. Nodule one-fourth inch in diameter in duodenal mesentery. Mesenteric glands enlarged and very hard, many of them infiltrated with lime salts. Numerous small nodules on the under surface of the diaphragm. Pancreas firm, suprarenals normal. Cœcum, colon and appendix—glands hard and enlarged; appendices epiploicæ enlarged; a hard nodule in wall of cœcum close to ileo-cæcal valve; hard solid enlargement of the tip of the appendix. Liver enlarged, surface nodular, mostly small nodules, largest being about three-fourths of an inch in diameter, many nodules umbilicated; section of liver—congested, solid, studded with white masses of various sizes up to three-fourths of an inch in diameter. The masses seem to be distributed along the course of the portal vessels. Gall-bladder contains bile, duct patent, small growths in wall of gall-bladder and also along the duct. Microscopic examination of the growth at the lower end of the Œsophagus showed it to be a glandular carci-

noma, having its origin in the mucous glands of the œsophagus. Sections were made of (1) the nodules higher up in the œsophagus, (2) the stomach at the edge of the ulcer, (3) the liver, (4) the mesenteric glands, (5) the tip of the appendix, (6) the nodule in cœcum, (7) diaphragm, (8) cardiac end of stomach, and they all showed the same type of growth—a glandular carcinoma. A glandular carcinoma (or cylindrical-celled or columnar epithelioma, or adeno-carcinoma or malignant adenoma—all of which terms are now considered as synonymous) is a very rare form of growth in the œsophagus. Butlin states that 90 per cent. of all tumors met with in the œsophagus are squamous-celled epitheliomata. J. P. Arnold, in reporting a case of squamous-celled epithelioma of the œsophagus in the *International Medical Magazine* recently, states that this is the form of carcinoma invariably met with in the œsophagus. My case and others that have been reported show that his assertion is wrong, and that glandular carcinoma does occur in the œsophagus although very infrequently. The primary seat of the disease is undoubtedly in the lower end of the œsophagus, and the feature of special interest is the occurrence of secondary growths of the same type, both upwards and downwards along the alimentary canal. In the case of the œsophagus the secondaries higher up might be due to epithelial cells or parasites being carried up with food vomited, or the growth might be disseminated along the lymphatics against the lymph stream, a possibility which is now generally accepted.

In considering the secondary growths in the stomach, cœcum and appendix, there are at least four ways of explaining them: (1) that epithelium has been carried from the growth with the food; (2) parasites carried from growth with the food; (3) dissemination by lymph stream; (4) dissemination by blood current. Then again the disease may have extended from the œsophagus directly by continuity into the cardiac end of stomach and along the lesser curvature, and from here into the liver and throughout the liver by the portal circulation.

ACUTE PANCREATITIS, WITH HEMORRHAGE AND FAT NECROSIS.

BY JOHN CAVEN, B.A., M.D., L.R.C.P. Lond.,
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AND

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So little, comparatively speaking, is generally known, as yet, of the morbid conditions occurring in the pancreas that no excuse seems necessary when recording cases observed.

Amongst recognized diseases of the pancreas, apart from neoplasms, hemorrhage and inflammation are perhaps the most important.

Hemorrhage into the pancreas is, on all hands, admitted to be the cause of death in a series of cases, in some of which the end of life comes suddenly, almost instantly, whilst in others the patient succumbs after an illness of, at longest, a few hours' duration. A satisfactory explanation of the occurrence of pancreatic hemorrhage, unaccompanied by inflammation, has not yet been brought forward. Vascular changes have been spoken of, but not proven; aneurysm, whilst naturally suggesting itself, has not been shown to exist. Fatty changes in the gland itself and a nervous origin have also been suggested.

Pancreatitis may be primary or secondary, the latter variety occurring in the course of pyemia when it is suppurative, or, as the result of a new growth, carcinoma most commonly, or calculus.

Instances of primary pancreatitis are so rare, or, at any rate, so infrequently recognized during life and proven by *post-mortem* examination, that the number of them throws but little obstacle in the path of the student; on the other hand, the paucity of reliable and complete records renders accurate study and classification a matter of considerable difficulty.

The most exhaustive analysis of such cases that has yet been brought before the medical profession is to be found in the monograph on acute pancreatitis, by Dr. Fitz, of Harvard University, being the Middleton-Goldsmith lecture for 1889.

Dr. Fitz, as a result of his investigations, not only of all recorded cases which he has been able to find, but of the relatively large number which he has been fortunate enough to have seen, classifies those showing inflammation under the heads: hemorrhagic pancreatitis, suppurative pancreatitis, and gangrenous pancreatitis. Any one of these forms may be accompanied by fat necrosis, in which disseminated nodules of necrosed fat, varying in size, are to be found scattered through the fatty deposits in the omentum, mesentery, subperitoneal tissue, and around and within the pancreas itself.

Acute pancreatitis is to be described anatomically as consisting in "degenerative changes in the parenchymatous cells, or exudation in the interstitial tissue, or both these factors" (Fitz).

In all acute infectious diseases the parenchyma of the pancreas, as of other glands, may be more or less affected by changes embraced under the name of cloudy swelling, which are supposed to be the initial stages of parenchymatous inflammation. In the class of cases under consideration at present, however, the changes are much more marked, and the interstitial processes are, no doubt, a large part of all instances of "genuine acute pancreatitis."

With regard to causation, acute pancreatitis is said to result in many cases from an "extension of a gastro-duodenal inflammation along the pancreatic duct." It may also depend upon hemorrhage, or be the cause of hemorrhage. In the following case the hemorrhage evidently accompanied or resulted from the inflammation, and did not cause it. No inflammatory process could be traced from the duodenum.

One of the most interesting, and at the same time difficult, problems in these cases is that of the accompanying fat necroses. Bacteria have been found in and around the necrotic patches by Chiari, and, as will be seen further on, the reporters of this case have also to speak of micro-organisms seen; but it is extremely doubtful whether these are more than accidental contaminations of the tissue. No proof can be offered of a causal relationship.

Balser concluded from examination of several cases of various diseases in which fat necroses existed along with other morbid conditions, that an *excessive growth* of fat cells may cause death of fat and be associated with hemorrhage, either the necrosis or hemorrhage causing the death of the patient. Such an explanation can be of no effect in the case we are to report, since the amount of fat present was by no means excessive in any part of the body, and, moreover, Virchow thought that the changes spoken of by Balser as fat necroses were merely cadaveric, as proven by the absence of any vital reaction in their neighborhood.

Robert Langshans, of Berlin, in a contribution to the *Festschrift*, dedicated to Virchow in honor of his seventieth birthday, describes a series of experiments made by him upon dogs and rabbits with the object of determining whether or not ferments derived from the pancreas itself could give rise to fat necroses. His procedure in conducting these experiments was quite simple, consisting in the injection into adipose tissue in the animals used of a watery solution of pancreas rubbed up in a mortar with fine glass. The results of twelve such experiments are tabulated, and in one only (a rabbit being the animal used) was any satisfactory conclusion reached. In this case fat necrosis, similar to that seen in cases of pancreatitis, was observed and fully described. Langshans has since undertaken a new series of experiments in the hope of confirming and con-

cluding what has already been done: but meanwhile we are justified in considering his single successful result as at least very suggestive.

The following case is one of pancreatitis, with hemorrhage and fat necrosis:

Dr. Oldright was called to see Miss H. during the forenoon of Monday, October 5th, 1891, the message indicating that she was in severe pain, afterwards found to be referred to epigastrium. The intensity of the pain may be inferred from the fact that two messages were sent within fifteen minutes. On questioning it was found that the patient, in addition to an ordinary breakfast, had eaten a number of grapes, swallowing the skins. A diagnosis of acute dyspepsia was made and treatment to suit ordered, a small dose of morphine being given with other remedies. Within an hour and a half the physician was summoned again, the epigastric pain having become very intense, and being described now as passing through the back and up under the shoulder blades: vomiting had occurred, a quantity of grape skins constituting part of the vomited matter. A hypodermic of morphia was given to relieve urgent symptoms, and purgatives prescribed in order to clear the alimentary canal; at this time also a purgative enema was administered, with little result. During the next twenty-four hours opiates and carminatives were administered and counter-irritants and fomentations applied externally. On Tuesday afternoon the patient appeared much better, and so far no rise of either pulse or temperature had been observed, but towards the evening the temperature rose to 101° F., and the radial pulse beat 100 to the minute; continued pressure over the lower part of the abdomen disclosed tenderness; treatment, opium in large doses and hot fomentations. On Wednesday morning the pain had subsided to a great extent, but nausea was marked. Opiates were now omitted and purgatives again administered—calomel, Seidlitz powder, and enemata. Bowels were moved thrice between 12 o'clock a.m. and 3 o'clock p.m., many grape seeds and skins passing. Shortly before 3 p.m. the physician was sent for, the report being that the patient had lost the use of her limbs. This motor paralysis was found to be complete in the arms and partial in the legs. Sensation also was impaired, more noticeably in the right arm than elsewhere. Hysteria from exhaustion was suspected, and a consultation asked for. About 8 o'clock p.m. Dr. J. E. Graham saw the patient with Dr. Oldright. The condition then was about the same as before; pupils, normal; pulse, fifty beats to the minute; muscles of neck paralyzed; sphincters, all right; patellar reflex was not obtained, but the test could not be made satisfactorily; no reflex gagging occurred on tickling the fauces; no paralysis of muscles of face or tongue; voice like that of a person with

swollen tonsils; no albuminuria. The patient was then moved into a larger room, and was immediately seized with a severe epileptiform attack, which threatened suffocation, there being much spasm of the facial muscles. This convulsion was limited to the face and neck. Soon afterwards she seemed more comfortable. Pot. brom. and asafetida were given by the mouth and rectum. At the request of her friends, Dr. A. J. Johnson was now called in consultation, meeting Drs. Graham and Oldright about 11 o'clock p.m. Drs. Graham and Johnson left about midnight. Shortly afterwards Dr. Oldright left the sick room, going downstairs; he had been seated but a few minutes when the nurse came down to ask a question, received her answer, went upstairs and immediately called the doctor, who, on reaching the bedroom, found the patient dead. A friend in the room said she had been seized with a convulsive attack similar to the one described above and died in it.

The family history in this case is good in all respects, and throws no light upon it.

Post-mortem examination of the body was made next morning about twelve hours after death.

Report: Inspection shows the body of a female of apparently about thirty years of age; nutrition very good; *rigor mortis* well marked; *post-mortem* staining well marked in usual positions; external orifices all right.

Section: Shows a large amount of subcutaneous and subperitoneal fat; muscle in good condition; omentum presents numerous yellowish white nodules, varying in size from that of an ordinary bean downwards, in which, on cutting them open, whitish spots like caseous matter are found—these were at first supposed to be tubercles; mesenteric glands are enlarged and some show central opaque whitish areas as from necrosis; all the abdominal viscera exhibit marked venous congestion, but, with the exception of the pancreas, appear otherwise healthy; the thoracic viscera are in very good condition: heart contains fluid blood and no clots.

Pancreas: Much larger than usual in cross measurement and also thickened: the capsule is tense and distended over the parenchyma by a reddish fluid, and here and there upon the surface yellowish spots similar to those in the omentum are to be seen; similar spots are noticed in the peripancreatic tissue. On cutting into the organ a quantity of blood at once oozes from its surface, the whole tissue seeming to be soaked with it. Closer inspection shows that the blood is diffused through the interstitial tissue and underneath the capsule, but does not apparently invade the parenchyma. At no point is a clot visible. No ruptured vessels can be found, nor are there macroscopic changes noticeable in the vessels anywhere in the

body. The brain and spinal cord also were carefully examined, and appeared to be in a perfectly sound condition.

Microscopic Examination: Parts of the pancreas, mesenteric glands, and omental nodules were submitted to microscopic examination, with the following results:

(a) *Pancreas*: The interstitial structures show considerable infiltration with blood, the capsule, subcapsular tissue, and interlobular bands near the surface being by far most affected. No changes can be made out in the vessel walls, but they are crammed with blood corpuscles; the stripping off of the endothelium of the arteries is very remarkable, the cells being mixed through the clotted blood in the vessels. The capsule is also in places considerably infiltrated with inflammatory cells. In the fat tissue in the neighborhood of the capsule and adherent to it are necrosed patches similar to those described below, and even the fat which is not otherwise affected shows marked small cell infiltration. In the interlobular tissue, acute inflammation is in process, as indicated by round cell infiltration, but this is patchy. The parenchyma of the organ in parts presents areas of cell necrosis without definite signs of inflammation; in others merely cloudy swelling; whilst in others round cell infiltration is so dense as to completely destroy lobular structure. At no place can abnormal collections of fat be seen in the pancreas. The condition, then, is one of acute interstitial and parenchymatous pancreatitis, with hemorrhage and necrosis. No blood appears *within* the lobules.

(b) *Mesenteric glands*: Swollen; dense small cell infiltration of periphery, with central necrosis, the necrotic areas being quite soft in the gross specimen.

(c) *Omental nodules*: These are seen on examination to consist of greatly modified fat tissue. A division into two zones, and in some cases three, can readily be made out. In the central and middle zones the cells retain their outline fairly well, and can generally be accurately delimited with the eye; in the outermost zone, in parts, only granular debris infiltrated with inflammatory corpuscles can be recognized. In many of the fat cells of both inner zones the cell contents are collected into a large globule located centrally in the cell, with either clear areas or granular matter surrounding; in many instances these globules are of a marked bright yellow color. The cells of the central area, as a whole, stain with carmine much more feebly than those of the middle zone, although both stain markedly enough. Taken from centre to circumference the cell contents can be better described as finely granular than otherwise, some being completely filled out, others only partially so. Fat crystals are to be seen in a few of the mid-zone cells, but not generally. The zone of the inflammatory reaction is narrow, as compared with the size of the whole nodule, and

composed in large part of granular debris, leucocytes, and proliferated, connective tissue cells. In a few spots fat cells have broken down and collections of free oil globules are visible. This has happened near the outer zone. Staining for the bacillus tuberculosis gives a negative result, treatment of sections with methyl blue only shows numerous small rods, occurring singly or in pairs, scattered through the inflammatory zone, but very few being seen in the central areas. These rods vary considerably in length (4 to 10 *m.*), free individuals being longer than the articles of a pair. In single rods the ends are rounded. Spore formation is noticed in the longer rods. No micro-organisms have been seen in the pancreatic sections. Attempts at cultivation have failed.

[This paper appeared originally in the *Canadian Practitioner*, May 2nd, 1892, and has been republished by request. So far as we can ascertain on consulting the literature on the subject, this is the first case of acute pancreatitis reported by a Canadian.]

CLEANSING SOLUTION FOR THE NASAL PASSAGES.

BY G. STERLING RYERSON, M.D., L.R.C.S. (Edin.), TORONTO.

The progress which has been made during the past two or three decades, and which is still being made, is a frequent subject of remark and congratulation. In no branch of medicine has greater progress been made than in rhino-laryngology. In so simple yet important a matter as a nasal cleansing solution progress has been made. The sole solution at hand was Dobell's, a solution which experience taught was agreeable to the throat, but which was somewhat harsh and irritating to the nose. Sometime during 1884 I devised the following solution, which was made for me by Mr. W. Lloyd Wood :

℞ Sodæ bicarb.,	
Sodæ biberat.,	
Sodii chlorid.....	ãã gr. xxx.
Sodii salicylat	gr. xl.
Ol. bergamot	℥iii.
Listerine	℥ss.
Glycerine	i.
Aq. destil. ad.	℥viii.

It is contemporaneous with Sciler's formula, but was devised without knowledge of his solution, from which it differs in several essential particulars. I have used this solution continuously ever since with satisfactory results. I commend it to the attention of the profession.

THE GENERAL PRACTITIONER.*

BY CHARLES MERRILL SMITH, M.D., M.C.P.S.O., ORANORVILLE.

It is not my intention to give a dissertation on the general practitioner of ancient, mediæval, and modern times, but rather to confine myself to a few salient points which have presented themselves to me, illustrating our present condition.

Like the Gaelic "neenister," who, when he took as his text the words, "The devil goeth about like a roaring lion, seeking whom he may devour," divided it into three parts as follows: (1) Who the devil *he* was; (2) What the devil *he* was doing; (3) What the devil *he* was roaring about. I shall treat my subject under three heads, namely: (1) What he (the general practitioner) was; (2) What he is; (3) What he might be; in other words the *fuere*, the *esse* and the *posse*. I have neither the time nor ability to sketch the fathers of medicine, mythical and real, but will merely name Æsculapius, the pupil of Chiron, and his sons Machaon and Podalirius, of whom Homer wrote in song:

"Of two great surgeons, Podalirius stands
This hour surrounded by the Trojan bands,
And great Machaon, wounded in his tent,
Now wants the succour which so oft he lent."

—thus showing that in those days as in our times the "non-combatants," as our supercilious British officers call the medical staff, did not flinch from their duty in the midst of danger. Neither shall I regale you with the histories of Hippocrates, Galen, Avicenna and Celsus, but will refer you to character sketches of the more modern physician to Shakespeare and Dickens, whose brilliant pens have immortalized the family doctor.

The great dramatist tells us in "King Lear" how disease was sold dearer than physic, as it is also in our day; for is there one here who does not know that the scoundrel who has given his last five-dollar bill to get a malady will spend \$30 in trying to evade payment of \$20? While the novelist caricatures certain types of Drs. Sunebey, Jeddian, Blanikers, Kurtancunnagen, Prof. Muff and the Charlatan Marigold, the reader will observe that due honor was paid to the studious, hard-working, faithful family physician, the friend and confidant of the household, whose words of hope and cheer were ever ready, as, guided by his skill and devotion, the children were led from infancy to childhood, from youth to man's estate and womanhood.

In comparatively recent times there stand out in noon-day brightness the names of Sydenham, Simpson, Hunter, Jenner,

* Read before the Dufferin Union Medical Society at Shelburne, December 30th, 1893.

McDowell, Atlee, Peaslee, Sims, Lawrence, Watson and hundreds of others which have been blazoned on the scroll of Fame.

Ian Maclaren has with burning pen told of one who was, I am proud to say, but a type of the true physician. Then, as now, the family doctor rode through mire and mud, turned night into day and risked limb and life in efforts to succour the sick, heal the helpless, and aid the mother in her agony. What were his rewards? Were they, as in the days of Hippocrates, garlands, gifts and works of art sublime, such as the golden statue presented by the people of Argos? I trow not. In many cases, I am safe in saying, he was paid as now, with wood short in measure and *queer* in quality, or hay heavy with a night's rain, having been loaded the previous evening and left out to get the dust laid properly! But while the old family doctor had a wide field in which to practise, and the whole of the human anatomy to keep in repair, the practitioner of to-day not only has to contend with our crowded ranks, but has his share of the *corpus* (not corpse), so narrowed down by the eye and ear specialist, the nose and throat, the thoracic, the genito-urinary, the orthopedic, the nerve and rectal specialist, the gynecologist, and dermatologist, that nothing will shortly be left but the umbilicus, and even that may be claimed by the laparotomist.

We are to-day, to use a Darwinian phrase, "the victims of an untoward environment," a pauperizing paradox. The State calls upon us for statistics and gratuitous services in sanitary matters and preventive medicine, gives grants to hospitals instituted primarily for a charitable and noble purpose, but now affording free or nearly free medical and surgical aid to people, who, though well-to-do, are mean enough to claim the privileges of paupers.

Among the other leeches that suck the life-blood of the general practitioner are the patent medicine vendors, the manufacturing chemist, and, shall I say it, yes, the repeating and prescribing druggist or pharmacist as he now calls himself. When formerly each member of the family would, on some occasion, consult the doctor, now the old man either takes K. D. C. or Warner's Safe Cure, or hies away to a hospital and gets put to rights at the rate of \$14, \$12, \$8, \$6 or \$2.80 per week according to his ability to lie about his worldly circumstances. The old lady takes Celery Compound, or drops into the hands of the gynecologist, the son takes secret remedies for secret vices, G. and G. or Cr. and C. Capsules, while the daughter takes Pink Pills for Pale People, or perhaps sits at the feet of that princess of modern fakirs, the Christian Scientist, paying therefor the modest fee of \$100 for a brief term.

Instead of fees, he (the general practitioner) frequently gets

fevers; instead of glory he gets gray, "but not with years"; instead of reward he gets rheumatism, and contracts pneumonia and sciatica in lieu of acquiring a comfortable livelihood. I have briefly glanced at the *esse* without mentioning the serious condition of toxemia in the *corps medicale* itself, which requires a vigorous flushing out of the *primæ viæ*.

Agitate and unite, unite and agitate. Concerted action, as to our rights, regarding Dominion registration, the duties of municipalities towards the indigent sick, State aid to preventive medicine, and original investigations would give to our much abused vocation that status which it deserves. Look at our legal friends in parliament, and their name is legion. Do they confine their energies to the interests of their individual constituencies? No! each and all labor to make the practice of law more indispensable to the citizen and lucrative to themselves. The soldier fighting for his country and slaying her enemies is recognized by his Queen and her Viceroy, and just and right is it that such should be the case; but did you ever hear of pensions, K.C.B's. or K.C.M.G's., being bestowed on any one of the host of our confreres who have become disabled during their efforts to preserve the lives of Her Majesty's subjects? or can you point to families of those who have suffered martyrdom through fatal contagious affections, and say our country has done its duty towards her defenders? For such indeed are they whose

. . . "true ambition there alone resides,
Where Justice vindicates and Wisdom guides:
Where inward dignity joins outward state,
Our purpose good as our achievement great:
Where public blessings, public praise attend.
Where glory is our motive, not our end.

And such is human life, still gliding on;
It glimmers like a meteor, and is gone,
What higher aim can man attain,
Than conquest over human pain?"

Clinical Notes.

NOTES OF CASE OF ALBUMINURIA COMPLICATING PREGNANCY.*

BY J. D. BALFOUR, M.D.,
Superintendent London General Hospital.

Elizabeth P., Canadian, aged 21, fair complexion and red hair. Admitted to the General Hospital on September 29th, 1898. When admitted she could scarcely walk, was very pale, and suffered from dyspnea. Had to be carried upstairs. Her whole body was edematous from her feet to her hair. The limbs were three times their natural size, but the edema was most marked in her breasts, abdominal walls, and face. It was the worst case of general anasarca I ever saw. She had a large goitre as big as two fists, which she said commenced over a year ago, and which increased rapidly after she became pregnant. She was about seven months pregnant when admitted.

The urine was scanty, about fifteen ounces in the twenty-four hours, cloudy, acid, specific gravity 1026, became nearly solid with albumen when boiled; epithelial casts were also present: severe headache and insomnia were prominent symptoms.

The patient was confined to bed, put on milk diet, a hot bath every day, with full doses of the tincture of iron, combined with small doses of arsenic. Pill rhei comp. was used to procure daily motions of the bowels. This line of treatment was continued for two weeks, when the patient had improved so much as to be allowed to leave her bed, the iron mixture being still continued. By this time the edema had disappeared, except in the breasts, in which it remained till after her confinement.

From October 14th until November 14th, a period of one month, she was up around in the daytime, was quiet and inclined to brood over her trouble, but was fairly comfortable. During this time she was allowed milk, broths, beef-tea, custards, bread puddings, etc. The urine remained scanty, however, with high specific gravity, and about one-fourth albumen. She was unable to sleep well, and a dry hacking cough caused her a great deal of annoyance, and the least exertion tired her out.

On the morning of November 14th she exhibited well-marked symptoms of Bell's paralysis of the face—left side: the next day one of the oblique muscles of the eye was affected, and she had double vision—all, as I take it, toxic in origin. The edema now began to show itself again; frequent micturition

* Read at December meeting of London Medical Association.

and bearing down pains also were in evidence. Fearing an outbreak of eclampsia at this time she was again put on milk diet, and her bowels, kidneys and skin actively acted upon.

At this time some blood was found in the urine. She was delivered on November 23rd, at 11 a.m., but the day before she had a temperature of 100 degrees, pulse 118, foul breath, and sordes on the teeth, urine thick and scanty. She was in labor for sixteen hours, and finally the application of the forceps was necessary to deliver the child, the mother having become completely exhausted. After delivery the fourchette was found to be torn, and there was also a slight laceration of the lower back part of the vagina, no doubt caused by the instrument.

The usual toilet after modern methods was made. The next day after confinement the temperature became normal, pulse 100, and everything went well until the evening of the sixth day when the patient had several chills, and on the following morning the temperature reached 104 degrees. Then followed one week of a mild type of bed fever with its ups and downs, principally ups. On the 29th of November—that is, at the commencement of the fever—the urine showed the following analysis: acid, specific gravity 1036, urates in excess, albumen one-half, thick and cloudy.

Present condition: On December 7th urine as follows: acid, specific gravity 1020, albumen one-tenth, high-colored, urea 2.9 per cent. Temperature normal. December 10th—urine acid, specific gravity 1018, albumen one-tenth, urates in excess, cloudy and high-colored. Temperature 100 degrees, still weak, but convalescing slowly. She is troubled sometimes with a cough, but I can find no signs in the lungs of impending phthisis. Is still confined to bed, appetite poor, and no ambition. The paralysis has almost disappeared.

This case, I believe, is an example of a class which in our time is far too numerous. A young girl becomes pregnant, feels herself disgraced and leaves home, has neither money nor friends, is neither fed nor cared for properly. Under these conditions she is unable to sustain the extra amount of work thrown upon the system which becomes impoverished; her blood becomes hydremic, which I think is the first pathological lesion, and the other diseased conditions, including the affection of the kidney, follow. Should such a person again become pregnant under favorable circumstances albuminuria would not likely return.

The peculiar features of the case are the presence of a large goitre, which since her confinement has decreased in size about one-half: the extensive kidney lesion, as shown by the great quantity of albumen, casts and blood; the excessive amount of edema at seven months over the whole body; the toxic paralysis; the fortunate escape from an attack of eclampsia; the unfortunate advent of bed fever.

CASES IN PRACTICE.

B. JAMES E. GRAHAM, M.D.,
Professor of Medicine Toronto University.

Cerebro-Spinal Meningitis.

Ward 21, Toronto General Hospital. Admitted December 27th, 1898. Died December 27th, 1898.

History.—R. S., aged 50. Family history negative.

Personal History.—Laborer at G. T. R. shops. Good habits. Always strong and healthy. No history of ear disease. Was at work on Friday, December 23rd, apparently in perfect health. Woke at four o'clock Saturday morning, and complained of severe pain in the back of the head, greatest on the right side. This pain was of a sharp, shooting character, and at times extended into the right temporal region and down the neck. Was very feverish, and refused his food. The pain continued and increased towards evening. Seen by Dr. Noble Saturday evening. Temperature, 103; pulse, full and frequent; face flushed. Complained of severe pain in back of head and neck. Passed a very restless night, and vomited frequently, but brought up very little from his stomach. The pain continued throughout Sunday, but the vomiting was not so frequent as during Saturday night. Sunday night, very severe pain in back of head and neck; very restless; threw himself from side to side in bed; twitching of arms and legs; did not sleep. Monday passed with an increase in the severity of the pain and greater restlessness. Monday night, became delirious; tried to get out of bed when he was left alone; tumbling and twitching of arms and legs.

Admitted to hospital Tuesday morning. Temperature, 103; pulse, 124; respirations, 42; face flushed; head turned towards left side; stiffness of muscles of neck; irregular movements of eyes; pupils dilated, react slightly to light; irregular contractions of muscles of arms, legs, face and thorax; knee-jerk increased on both sides; ankle clonus present on both sides. Sensation—hyperesthesia. Pin pricks caused contraction of muscles of arms and legs. Died Tuesday night, December 27th. Before death, temperature, 103½; pulse, 150; respirations, 60.

Autopsy.—By Dr. J. Caven, December 28th, 1898, 3 p.m. Nutrition fair. *Post-mortem* staining in dependent parts; rigor mortis marked; orifices normal. Fat, deep yellow color; muscle, dark red; very little fat in omentum; no peritoneal adhesions; no fluid in peritoneal cavity; no pleural adhesions; no excess of fluid in either cavity; about 1 oz. clear fluid

in pericardium; no adhesions. Heart, 10½ oz.; muscle, dark red in color; left ventricle slightly hypertrophied; coronaries show commencing atheroma; a.m. and p.m. clot in left ventricle; slight atheroma of mitral valve; other valves normal. Lungs—Left, 17½ oz.; right, 15½ oz. The bronchi contain considerable muco-pus; in both lungs also some slight emphysema and collapse; edema of lower lobes. Spleen, 3 oz., dark colored, fairly firm. Kidneys—left, 5½ oz.; right, 5 oz.; capsules, non-adherent evidences of cloudy swelling. Bladder, very thin-walled and distended. Stomach, many sub-mucous hemorrhages (venous?). Large Intestine—appendix: end hanging free over brim of the pelvis; sub-cecal and ileo-cecic pouches well developed. Liver; fatty patches on surface—wedge-shaped—extending into liver substance; organ fatty throughout; patches of perihepatitis; weight, 54½ oz. Brain and membranes: general basal meningitis; thick purulent exudate in subarachnoid space. About the pons and medulla it is very thick and pretty evenly distributed. It is thick along the sylvian fissures, and extends over the cerebral cortex in the sulci. The vessels injected, and some capillary hemorrhages. Ventricles; no fluid; choroid plexus congested; cortical grey matter degenerated in some parts where exudation is thickest. Spinal Cord—dura distended with thick purulent exudate. Exudate also general throughout subarachnoid space. Vessels injected, and there are numerous capillary hemorrhages.

(Reported by Mr. Tanner.)

Tumor of Spinal Cord.

Toronto General Hospital. Admitted November 7th, 1898. Died December 7th, 1898.

History.—R. D., aged 67. Negro. Mother died at 30—(tuberculosis?). Family history of rheumatism, no history of new growth. Plasterer and bricklayer by occupation. Hard worker. Smoked a great deal. Never drank to excess. Had gonorrhœa, but no symptoms of syphilis. Rheumatism since he was quite young. Had many accidents, but said he never injured his back. For past two years had to use a catheter, and to remedy this had both testicles removed, but with no effect. Had pain in the back for two years. Towards the end of September, 1898, he complained of severe pain in the back and hips accompanied by weakness in the legs. This pain continued. About two weeks previous to admission to the hospital he complained of a girdle sensation at about the junction of the dorsal and lumbar regions. At this time there was complete loss of power in the lower extremities.

Entered the hospital, November 7th, 1898. Paraplegia. Sensation much impaired below Poupart's ligament. Distinction

between heat and cold poor in lower limbs. A hot tube passed along the spine caused considerable pain at level of tenth dorsal vertebra. Herpes zoster on left side in fourth intercostal space. Urine had to be drawn off. Knee-jerk present, plantar reflexes present. November 11th.—No knee-jerk, no plantar reflexes, sensation very slight. November 15th.—Bed-sores forming on left tuber ischii and on left heel; loss of knee-jerk; loss of plantar reflex; complete loss of sensation in lower extremities; urine dribbles away; rectal sphincter good; abdomen distended and tympanitic; legs flaccid and muscles very flabby, but no marked atrophy; feet cold; culture from blood negative; continued as above until death on December 7th; anal sphincter always under control; loss of sensation extended up to three inches below umbilicus.

Post Mortem.—Bed-sores over sacral prominence, left ischial tuberosity and on left heel; largest sore over sacral prominence, $2\frac{1}{2} \times 2\frac{1}{2}$ inches; body darker in color below level of tenth dorsal vertebra. Heart: 11 oz.; brown atrophy of muscle; coronaries tortuous and thickened; edges of aortic valves slightly calcareous, but the other valves normal; blood dark in color and clotted. Lungs and pleura: old adhesions at right apex, no fluid in right pleural cavity, 12 oz. in left cavity, adhesions: edema and hypostatic congestion of lower lobes; emphysema of upper lobes; left lung 30 oz., right lung 20 oz. Kidneys: capsules non-adherent, relation of cortex to medulla reduced; numerous small cysts in both kidneys. Stomach: atrophied and thickened; small intestine normal; large intestine distended. Brain and membranes: brain weighed $41\frac{1}{2}$ oz.; membranes adherent to skull; vessels congested; no softening. Spinal cord: commencing at the level of the tenth dorsal vertebra the dura was strongly adherent to the spinal canal for three inches down the cord. At the level of the eleventh dorsal vertebra there was a small tumor attached to the dura and surrounding a nerve trunk. The growth was $\frac{1}{2}$ inch in length, hard, and projected into the canal, compressing the cord. There were also some small nodules on the dura adherent to the right side of the canal at the level of the twelfth dorsal vertebra.

Microscopic examination of the tumor: Composed of fibrous tissue and nerves bundles, the fibrous tissue forming the greater bulk of the mass. The cord was constricted opposite to tumor, and microscopic examination showed degeneration of the central grey matter and also of the white matter.

A CASE OF OTITIS MEDIA WITH PURULENT MENINGITIS.

BY DR. H. J. HAMILTON.

Patient—H. W., admitted to Toronto General Hospital under the care of Dr. W. H. B. Aikins; male, aged 32 unmarried. Had four children. Worked as a salesman. Used tobacco and drank heavily. Had pneumonia in February, 1898, and enteritis three years ago. On the night of December 24th he complained of some earache which passed off in a short time, and did not prevent him from working during the next week. One week later, or about midnight on Saturday, December 31st, he went to bed feeling as well as usual, having worked all day and attended a banquet at night. In a short time he awoke with a most severe pain in the right ear and right side of the head. On the next day, Sunday, January 1st, there was a discharge of blood and pus from the right ear. He also complained of pains in the back of the neck, and great headache and some vomiting.

Was admitted to the hospital on January 9th; was delirious on the preceding day, and has continued so since. Very restless, tossing about in bed and getting out of bed. Had some slight cough, and the sputum was streaked with blood on the day of admission. He complained several times to his wife that his left side seemed paralyzed, and that his right eye smarted a good deal. When he wanted to move the left hand he always lifted it with the right.

Present Condition.—Patient delirious. Resp. 24, temperature 100.4°, pulse 108. Face flushed, pain in the head, some tenderness over the mastoid process in the right side. Discharge from right ear. Right pupil larger than the left. Both pupils reacted to light. No tender points along the spine. Patellar reflexes not exaggerated. Ankle clonus present in both legs, but more marked in the left. Sensation seemed to be normal. No muscular twitching, but restless, getting up all the time. No paralysis of power or motion observed after admission. Urine alkaline, specific gravity, 1025, albumen and sugar not present. Impaired resonance in the base of the left lung. No rales. Breathing heard over both lungs. Heart normal, liver enlarged, spleen palpable. The patient was delirious throughout the next day, January 10th, and died that night, twenty-four hours after admission.

Autopsy.—Made by Dr. Hamilton twelve hours after death. The condition of brain and meninges was the chief point of interest. The external surface of the dura mater was practically normal. No congestion of the vessels, but there were

some adhesions old in character at the base. No pus on the outside. The arachnoid and pia mater at the base, but more particularly on the right side, were congested and infiltrated with thick yellowish pus. The same condition extended over the cortex of both hemispheres, but was more marked in the frontal and parietal regions. The choroid plexus on the right side somewhat congested. Fluid in both ventricles not increased in amount. In the mastoid process pus was also found. The other organs of the body were normal, except the liver, which was enlarged—3 lb. 15 oz., somewhat fatty, and a number of infarcts throughout.

Bacteriological examinations of the blood before death and of the pus after death gave pure cultures of streptococcus pyogenes.

THE OUTBREAK OF SMALL-POX IN CAMDEN TOWNSHIP, KENT COUNTY.

REPORTED BY W. F. BRYANS, M.B., TORONTO.

During October and November, 1898, there were four cases of small-pox in Camden Township, Kent County. The first case occurred October 3rd. The disease had been contracted in Detroit from a family supposed to have chicken-pox.

The Camden cases occurred in a family of ten persons, living in a seven-roomed farm-house. Of these ten persons five had never been vaccinated. Of these five, four contracted the disease. A baby eight months old did not take the disease, though unprotected by vaccination. The five who had been vaccinated five years ago, showed one good cicatrix each, and these all escaped.

The four cases occurred on October 3rd, 19th, 22nd and 24th respectively. The stage of incubation was in first case, seven to fourteen days; second case, sixteen days; third case, nineteen days; fourth case, twenty-one days. The first case was semi-confluent and very severe. The temperature was characteristic in each of the first three cases. The fourth case was very mild, there not being over twenty papules present, and in only one was the characteristic umbilication present.

The highest temperature noted in any case was 105½. This was before the rash appeared. After the rash appeared the temperature was in each case 98½. The nausea was very marked in each case, and continued forty-eight hours. All made a good recovery. In the first case the pitting was excessive, especially on face. The other three are very slightly marked. The ten persons were quarantined at their own home, a seven-roomed farm-house.

The sick were only separated from the well by a thin wall. There was no attempt to separate the sick and well from October 3rd to October 14th. The disease was recognized as small-pox on October 9th. The rash was confluent on the head and face in first case. Pox could be seen under nails of fingers and toes during convalescence. There were pox in mouth and pharynx. In second and third cases the rash appeared first on lower third of legs, and was more marked in this situation than elsewhere.

Treatment.—No special treatment was adopted. Liq. ammon. acet. was given freely at first, and six ounces of whiskey were used for the four cases. During pustular stage a mixture of equal parts of carbo ligni, ac. boric and acetanilid was freely dusted on over the entire body. This seemed to be useful as a deodoriser, and also relieved the soreness of the raw surfaces. The ventilation was such by means of doors and windows that the patients were practically treated in the open air. The diagnosis was very easy in the first three cases, there being present the characteristic temperature, the intense nausea, and the umbilication of the vesicles. The fourth case was so slight as to be almost unnoticed had it not occurred during an outbreak.

Selected Articles.

TUBERCULOSIS.

BY THOMAS CLIFFORD ALBUTT, M.D., LL.D., F.R.S.,
Regius Professor of Physic in the University of Cambridge.

[ABSTRACT.]

The editor of the *Practitioner* is good enough to desire from me some expression of opinion concerning this important subject, one which has received so interesting a treatment at his own hands and those of his contributors. That I have anything to add to these previous opinions and records I cannot suppose; but some reiteration of the views of the older members of the profession may be of weight in pressing the subject upon public attention.

It is still with pain that I recall the sadness with which, in my early days, we were wont to recognize the presence of consumption in young and promising men and women, too often bright and interesting, or at any rate capable and industrious members of society. Well I remember the fatal—for such it then seemed—the fatal note of the “consonating rãle”: how it impinged upon the unwilling ear like a knell. For they nearly all died in those days. There were legends, indeed, in every man’s practice, in every family circle, of lives plucked from the fire; but these rare successes gave us no confidence in individual cases. Statistics are no comfort to the individual: they have scarcely an application to his case. What comfort is it to the man, standing before you for a verdict, to tell him that 10 per cent. of his class will recover? As I have said, prognosis was very dismal in those days. For years the victim of phthisis might linger; for years his foe might sleep, indeed: but, sooner or later, the hand of death was laid, softly or harshly, upon him.

Then arose Henry Bennet, a keen and original thinker, and a good fighter. Smitten himself with phthisis, he determined to live; and Bennet was the practical maker of the “open-air cure.” Bennet threw away all traditional codling, and committed himself boldly to the open air. Day and night he lived virtually out of doors; but, not altogether freed from the bogey of “catching cold,” he sought, and indeed wisely sought, a climate in which such an experiment—for then it was little more—could be conveniently, pleasantly, and, as he thought,

safely carried out. As we all know, he settled down at Mentone; there he lived in his beautiful garden, his old tower being but a summer and picnic house, and by night he slept without windows. After a while when he ventured to spend some part of the year in London, he found that even in our climate he could bear the well-opened window without harm, and thus grew bolder in his measures. A few years later Archibald Smith, Hermann Weber, Unger, and others, discovered not only that consumptive persons could trust themselves to the open air, but that it was not necessary for this purpose to seek a warm and delicate air; that even in the Andes, and in the winter of the high Alps, results could be attained as good, and even better, than the records of the Riviera. In 1870 and the two following years, tracing certain German rumors to their sources, I visited Davos, and helped to convey to English physicians the message of Dr. Unger, who, as he was wont to say, "triumphed at Davos over the Riviera." Then came Dr. Brehmer and Dr. Dettweiler, declaring not this climate in particular, nor that, but the fresh air of mother earth to be the essential remedy; and that the consumptive need not be banished to this country or that, but may find his homely remedy at his own door. Koch's discovery of the tubercle bacillus gave point and clearness to these conceptions: the modern system of treatment gave the physicians new weapons and a new enthusiasm in fighting the enemy, and now we hear even the "consonating rôle" with some approach to equanimity. A pathetic acquiescence in the delusive hopes of the sanguine *poitrinaire* has given place to a cordial anticipation of cure. This line of progress, and the likes of it, such as the serum treatment of diphtheria, have cheered both physician and patient, and have largely transformed the face of medical practice.

Opinion, indeed, after its fashion, is now turning to the other extreme, and people are saying that any air will do; the raw, damp atmosphere of English moorlands in winter, the bitter winds of our east coast, or even the murk and filth of London. Well, it is true that if the invalid cannot change his country he will do better to trust himself to such air as he has than to huddle himself up in dread of it. However, the best of our home atmospheres may be trusted too carelessly, even if they may be used by the discreet with success. In this respect, those who have the means to choose can find far better opportunities of enjoying the open-air cure: perhaps best by camping for months at a time in the deserts of Upper Egypt and Nubia, or of Syria; or, again, in the Asiatic, South African, American or Australian prairies and uplands. Nevertheless, much and remarkable success may be obtained in England,

especially in its more favored regions; yet the best results are to be had at high elevations: at Davos or St. Moritz for the young and active, and the Andes and other balmier highlands for weaker or older patients; and next to the mountains come the great deserts, especially the Nubian, and after these the open-air treatment at lower elevations, a dry, equable and bracing air being the best. The German institutions, in my experience, are unsuitable for English patients of the upper classes, the habits of life and cookery being distasteful to them. A damp soil—and in England damp soils are too much with us—is injurious; cold and damp air favors catarrh, and catarrh favors tubercle. Persons of catarrhal bent should either leave England or reside on dry uplands, as on the uplands of Hampshire or Sussex. Cases in which there is a proclivity to pleurisy or sore throat (of whatever kind) are better away from Alpine climates.

Are we to hope that consumption, like small-pox, may become a tale of the past? If so, like small-pox, it must be banished by preventive means. Is there any prospect of such a consummation? Undoubtedly there is; and while we are perfecting our means of cure, let us not rest till these perfect means are no longer wanted. Tuberculosis has fallen into the class of infectious diseases, and must be resisted by the methods applicable to infectious diseases: these are—to seek for an antidote, and to abolish the immediate cause.

Happily, man is not a highly susceptible animal in respect of tubercle. Were man as the guinea-pig before tubercle, he would probably have been extinguished ere this, and the editor's essays would not have been written. Some ten or twelve years ago I detected tubercle bacilli in swarms in the milk of one of my own cows. As this cow was a valuable one, I had turned too deaf an ear to some story of a cough, and her milk was continually milked into the pails with the rest. This milk, thus tainted, was not only consumed for weeks by my own family, including a little girl and her young governess, and by household servants old and young, but by two out-door families, one including a young wife, the other a wife of some thirty-five years of age and seven children under twelve years old. For six months I anxiously awaited the consequences, but my little world happily said nothing to my tubercle; as it happens, none of this company has even yet fallen to tubercle. By not a few of these various folk, however, the milk was drunk freely as a food, probably for the most part unboiled.

Now, can this comparative immunity be raised into a complete immunity, say, by a protective serum or other animal juice? Of such a prospect I cannot speak positively; but I have cognizance of certain unpublished laboratory investigations

which are not without hope in this direction. Even if such an instrument be discovered, we may still prefer prevention to antidote, and banishment of the cause to prophylactic and curative vaccinations.

Whether we should register cases of tuberculosis, and whether we should isolate infected persons is, however, presently under discussion. In the large cities of the United States registration is making great way; the social and other hindrances to registration in England seem considerable; still, registration will probably come about. When we demand isolation we are, I think, fanatics; that is, we are driving hard one set of arguments with a blind eye to contingent and conflicting considerations derived from other circumstances which we ignore, or to which we are insensible. This is to be "logical," as our French neighbors call it. Would it have been for the public good to have isolated Henry Bennet or Andrew Clark in the midst of a beneficent career; or now, on early suspicions, to carry off young people to desert islands, to break up families, or to banish a bread-winner on the rather remote chance of consequences which we are learning successfully to neutralize? An old friend of mine came to me with well-marked pulmonary phthisis fully fifteen years ago; he was, and happily still is, a keen sportsman, and one who detested the notion of exile. He was a married man with four children (still healthy and now out in society), and he was subject to overt gout—to podagra—a good sign in the tuberculous, as in the overtly gouty the tendency to protective "fibrosis" is stronger. So I said, "Live still in the open air, but even more so; take certain proper precautions about your expectoration and the like, and continue your present life." This patient has still phthisis—advanced phthisis—in both upper lobes; but he hunts four or five days a week, and is still a forward rider, with one of the fastest packs in the shires. He is a good neighbor, a good father, a good friend and a happy man. And some of us would have shut him up fifteen years ago! Now such cases occur abundantly in every doctor's practice.

Our instant business, to withstand the multiplication of the bacillus as best we can, suffices for us; we may avoid it far better than we do at present, and we may awaken in the English public a quicker perception of the value of ideas in these, and, for that matter, in all subjects of thought than at present prevails, for your ordinary Englishman is as dull to ideas as he is valiant in action; and thirdly, we may provide for the victims of tubercle some instruction in the best cure at present known, namely, the open-air cure; and see that some tolerable means for carrying it out are within the reach of all classes of the commonwealth.

Finally, is the "open-air cure" a cure for consumption only? Are not the virtues of fresh air rather indirect and confederate than specific in their functions? Even from the airiest room we are warned that "ozone" is absent. In the treatment of many other chronic diseases the open air may be an invaluable ally; in the treatment of typhus fever I proved and published its value thirty years ago, and oftentimes since have seen its value in infective and septic affections of many kinds. Nay, Mr. Auberon Herbert has eloquently proclaimed the virtues of the open air, for the so-called healthy man, any time this ten years or more: and longer ago than that, at his house in the New Forest, had carried out his principles in as thorough-going a fashion as the most modern "air specialist" of them all.—*The Practitioner*, January, 1899.

A CEREBRAL TUMOR IN THE LEFT FRONTAL LOBE.

(Continued.)

Dr. Giannelli, in his most accurate study upon ninety-seven cases of tumors of the frontal lobes, has not found psychical symptoms in more than twenty (*Policlinico*, fourth year, 1897). The recent cases gathered by Devio and Courmont (*Revue de Médecine*, April 10th, 1897), by Tamburini and Obici, also show the importance of the grave psychical symptoms in the course of frontal tumors. The clinical deductions have found their support and their proof in the laboratory. Bianchi had already observed the loss of the higher psychical functions in apes with their frontal lobes mutilated (1894). Then examining histologically the brains of apes thus mutilated (1895) he was able to show that the frontal lobe, while it has few direct relations with the pons, communicates freely with the sensory and motory cortical areas.

From all of this we may make the deduction that in the formation of the higher psychical processes, the frontal lobes, or, better, the prefrontal, have a special importance. The study of cerebral localization, in which the names of our Tamburini, Luciani, Seppilli, Bianchi and others were so prominent, has taught us that the cerebral cortex has no uniform function, but that upon it there are special zones with special functions. While we assert that the prefrontal lobes are the part of the nervous system set apart for the formation of the higher psychical manifestations, we do not by that mean that the prefrontal lobes are organs independent in themselves of the other

parts of the brain—that would be contrary to the very principle of cerebral localization. If the various parts are designated each to a special function, all are, however, connected, so that the harmonious fusion of their products goes to form the various manifestations of life. Likewise, in order that the function of the prefrontal lobes may be manifested (physiology having shown that it is not the seat of the motory and sensory perceptions), it is necessary that the other parts furnish the material. From sensation, a physiological fact not of a psychical nature, by a dynamic vital action of the cerebral cellules which receive the sensation, we ascend to perception, the first psychical fact, whose remembrance or whose images or representations constitute the simple elementary idea. From the simple ideas which accumulate in the cortex, preserving special bonds, we proceed by degrees to the formation of the highest abstract thoughts. But for the formation of the abstract thoughts, those anatomical elements which have already been the seat of the first images, of the first associated groups, are not sufficient. It is certainly necessary that other elements of higher functional developments should intervene; and it is here that the importance of the prefrontal lobes shows itself. Here would take place the fusion of the sensorial and motory products of the other parts of the brain, the reproduction of the ideas in their more complex associated relations, the formation of abstract thoughts, of judgments and of reasonings, in a word, the synthetizing of all those facts whence is constituted the personality, the psychical life, of the individual. The prefrontal lobes, writes Bianchi, would receive the nervous waves from all the sensorial areas of the brain, and would transmit them, after the special elaboration of which they are capable, to the motor zones, and especially to the centres of spoken and written speech. They would thus be the more immediate organ of consciousness and memory, that is to say, of the personality in space and time.

Wherefore I claim that the psychical disturbances in my case are due solely to the change in the white substance, and to the compression and material alteration of the cellules of the affected frontal lobe. I claim that in the diagnosis of tumors of the frontal lobes, no small share must be given to psychical symptoms, which appear early, which last and increase in force, and are prominent throughout the course of the disease, especially when, as in my case, other marked symptoms do not exist, which would lead one to conclude that the neoplasm was in other parts of the brain. And, nevertheless, a symptom was present from the first, and lasted to the death of the patient—a symptom which seemed to have arisen in order to keep up the doubt as to the seat of the tumor—I mean the special

wavering gait. On this subject I shall mention that L. Bruns, in 1892, in his observations on four cases of tumors in the frontal lobes, with autopsy, stated that a leading and constant symptom was a disturbance of the equilibrium of the body analogous to cerebellar ataxia, which is rare in tumors of the other parts of the brain. Recently, at the International Congress at Moscow (1898), he has spoken again on the subject, and asserts that the so-called cerebellar ataxia, claimed to be characteristic of affections of the cerebellum, can be found in the same manner in tumors of the frontal lobe, and under the following form. He says that there are two forms of cerebellar ataxia: (1) typical ataxia, or the drunkard's gait of Duchenne; (2) resembling the ataxia of babies. He also traces the diagnosis between cerebellar tumor and frontal tumor with co-existing ataxia, taking account of the general or collateral symptoms, which are met in each case, differing in the one case from the other. My case might confirm what Bruns asserts; the patient walked like a drunkard, without, however, perceiving it. And the tottering gait did not depend on true vertigo. The sense of equilibrium was truly wanting. Disturbances of the gait in cases of frontal tumors have been observed also by others. Thus, to mention only a few, in Giannelli's case—a syphilitic tumor of the left frontal lobe, cured, the sense of equilibrium was slightly wanting. In the first of the two cases of Tambroni and Obici, walking was very difficult, both on account of the general weakness and because of the tendency to fall backwards. We therefore see how interesting would be an accurate and comparative study of disturbances of gait in frontal tumors, both in order that we might have a fuller knowledge of the features thereof, which perhaps are not confined between such narrow bounds, as Bruns says, and also that we might have another diagnostic symptom, and a more complete study upon the physiology and pathology of gait and equilibrium in cerebral diseases. I merely claim that, in my opinion, such disturbances of the gait are, in every case, to be accurately sought out, as they, when accompanied by grave and early psychical symptoms, may have no little importance in the diagnosis of the seat of tumors of the frontal lobes.

Translated from *La Clinica Medica Italiana* by

HARLEY SMITH.

Society Reports.

TORONTO CLINICAL SOCIETY.

The fifteenth regular meeting of the Toronto Clinical Society was held in St. George's hall, Elm Street, on the evening of the 11th January, 1899. Dr. F. LeM. Grasett, the President, occupied the chair.

Fellows present: H. J. Hamilton, Rudolf, Bruce, Peters, J. E. Graham, Chas. Temple, John Caven, Meyers, Small, McIlwraith, Badgerow, Ryerson, Wm. Oldright, Trow, W. H. B. Aikins, Lehman, Fotheringham, Thistle, Davison, Chambers, George Elliott, W. H. Popler.

Nominations: Dr. Wm. Goldie, proposed by Dr. Jno. Caven, seconded by Dr. G. S. Ryerson.

Otitis Media with Purulent Meningitis.

Dr. H. J. Hamilton detailed the history and presented specimens. (See page 82.)

In discussing the case Dr. Ryerson asked whether there was any history of chronic ear trouble, and stated it would be interesting to know whether abscess of brain in this case followed an acute attack of some old chronic disease.

Excision of Elbow for Tubercular Disease.

Dr. George A. Peters presented a patient (about eighteen years) whose right elbow he had excised about four weeks previously for tubercular disease of elbow of long standing. Commenced after a fall. Had never suppurated, but got stiffer and stiffer every year. Never able to supinate his hand. Tuberculin test had been used and a marked reaction obtained. Excision performed. Kocher's operation. Patient had not seen the palm of hand for thirteen years. Dr. Peters gave a short description of the operation. The arm is now painless. Patient can now comb his hair and feed himself with it. Can bend the arm to a right angle. Pronation and supination good, but not perfect.

Jacksonian Epilepsy.

Dr. D. C. Meyers exhibited a patient (male of twenty-three or thereabouts) subject to Jacksonian epilepsy. At five years of age he had been struck on head by club falling out of a tree.

Dazed, but no loss of consciousness and no depression of skull. At birth, severe labor. Intense headaches about six months ago. Never vomited. Sometimes for a month entirely free from an attack, then a spasm. Attacks mostly confined to left arm. Always conscious. Patient gave voluntary exhibition of bringing on an attack and suspending it by seizing hand forcibly with right member. Spasms last thirty seconds. As many as thirty in a day. One day he had sixty. No change in pupils; no optic neuritis; no urine was passed.

This case was discussed by Drs. Graham, Oldright, Bruce, Peters and Davison. Drs. Bruce and Peters favored trephining the skull for the relief of the patient.

Cerebro-Spinal Meningitis, with Specimens.

By Drs. Graham and Caven. (See page 79.)

Drs. Fotheringham, Davison and Anderson discussed the case, the two latter instancing somewhat similar cases seen in practice.

Tumor of Spinal Cord.

Dr. J. E. Graham. (See page 80.)

Notes of a Case of Cerebral Tumor.

Dr. Fotheringham read interesting notes from his case book regarding a boy, aged 12, under his charge in the Hospital for Sick Children. Symptoms: Headache, dizziness and vomiting; vomiting lasted six months, occurring often four to six times a day. Some hiccough also. Sight began to fail in March, 1897; but at times he had perception to light and color for a short time. Present condition of patient decidedly fat. Pupils very widely dilated, with very slight reaction to light. Diagnosis: Tumor, possibly gliomatous, possibly fibrous, situated in angle of crus and pons. The notes were incomplete as to prognosis, as the patient had passed from under Dr. Fotheringham's charge.

Drs. Davison, Ryerson and Graham made brief contributions to the discussion, after which the society adjourned for the usual refreshments.

GEORGE ELLIOTT,

Rec. Secretary.

LONDON MEDICAL ASSOCIATION.

The regular monthly meeting of the Association was held in the Medical College on the evening of December 12th, those present being: Dr. Eccles, the President, in the chair, and Drs. Campbell, Balfour, Graham, Hodge, Macarthur, Teasdall, New, Ovens, Stevenson, Henderson, Woodburn and English.

Hepatic Calculus.

Dr. Stevenson exhibited a hepatic calculus discovered *post mortem* in a patient aged fifty years, who died of pneumonia. In addition to the calculus the gall-bladder contained a lot of thick grumous matter.

Albuminuria Complicating Pregnancy.

Dr. Balfour read a most interesting report of a case of albuminuria complicating pregnancy. (See page 77 of this issue.)

The discussion thereon was taken part in by Drs. Campbell, Graham, Hodge, Teasdall, Henderson, New, who referred to a case of paralysis of the right internal rectus, due to albuminuria, now under his care. Ovens, who owing to the short standing of the trouble, believed the paralysis to be due to a peripheral lesion toxic in origin; Stevenson, who spoke of the impression produced on the fetus by the albuminuria, and stated that in the majority of these cases where the child is born alive it seldom survived beyond childhood; English, who referred to a patient who, having suffered from goitre for years, had albuminuria and eclampsia when seven months pregnant with her first child and lost it, but in the succeeding pregnancy was entirely free of albumen in the urine and was delivered of a child: and Eccles, who referred to a patient who had lost several children at about eight months owing to toxic poisoning from albuminuria, and in whom he got a living child by bringing on labor at eight months, did not believe pressure to be the cause of albuminuria, and instanced cases where ovarian cysts of forty-five and fifty pounds' weight occurred without albumen in the urine.

Dr. Balfour made reply. He believed that nourishment being deficient the blood was anemic, and that it was in the first instance the cause of this albuminuria, and also that the solids in the urine being normal in amount, systemic accumulation did not take place and consequently no eclampsia occurred.

The President, Dr. Eccles, in accordance with custom, gave an interesting review of the work done by the Association during the year.

The following were elected officers for the ensuing year: President, Dr. R. Ferguson: Vice-President, Dr. J. D. Balfour;

Secretary, Dr. W. M. English; Treasurer, Dr. J. A. Macarthur; Corresponding Secretary, Dr. H. A. Stevenson.

After votes of thanks being tendered to the officers of 1898 the meeting adjourned.

W. M. ENGLISH,
Secretary.

THE SOUTHERN SURGICAL AND GYNECOLOGICAL ASSOCIATION.

The Southern Surgical and Gynecological Association held its eleventh annual meeting at Memphis, Tenn., December 6th to 8th, 1898. A large number of distinguished surgeons and gynecologists were in attendance, and many admirable papers were read and discussed.

Dr. Richard Douglas, of Nashville, President, in his annual address, said:

"This association in the ten short years of its history has become renowned for the excellence of its scientific work, the truthfulness of its records and the spirit of warm friendship that pervades its membership. And we cannot too cordially express our thanks to Dr. W. E. B. Davis, our permanent secretary, to whose indefatigable efforts the Southern Surgical and Gynecological Association owes its existence and high standing."

The officers elected for the ensuing year were: Dr. Joseph Taber Johnson, of Washington, President; Dr. F. H. Parham, of New Orleans, and Dr. W. L. Robinson, of Danville, Va., Vice-Presidents; Dr. A. M. Cartledge, of Louisville, Treasurer; and W. E. B. Davis, of Birmingham, Ala., Secretary. Members of the council are Dr. L. S. McMurtry, of Louisville; Dr. George J. Englemann, of Boston; Dr. G. M. Johnson, of New Orleans, and Dr. Tiffany, of Baltimore. Dr. Ernest S. Lewis, of New Orleans, was made chairman of the committee of arrangements for the next annual meeting.

THE DUFFERIN UNION MEDICAL ASSOCIATION.

The Dufferin Union Medical Association was organized at Shelburne, Ont., December 30th, 1898. The members were addressed by Dr. James Henry, Council Representative for District No. 6, and the President-elect, Dr. John Barr.

Dr. George Campbell, of Grand Valley, was elected Vice-President, and Dr. Charles M. Smith, Orangeville, Secretary-Treasurer.

The Secretary read a paper, which was directed to be published. (See p. 74 this issue.)

The society will hold its meetings quarterly, the next session to be held in Orangeville on the second Tuesday in May, 1899, when a number of papers and cases will be discussed.

Editorials.

MEDICAL EDUCATION.

Dr. Wm. Ewart, Senior Physician to St. George's Hospital, London, in his Harveian lectures, to which reference was made in our last issue, had much to say about the teaching of medicine. He said the system of teaching which prevails at present is "academical" to a fault, the various subjects being dealt with in compartments. Very frequently it happens that the teaching of elementary subjects is practically divorced from their uses, and students forget much that they have learned in anatomy, physiology and chemistry before they commence clinical work.

Dr. Ewart regards examinations as a necessary evil, the tendency of which is to cultivate and develop memory rather than imagination and original thought. Many think that the burden of scientific facts is becoming intolerable for medical students, and should be to some extent lessened. The most important point, however, according to the lecturer, is the matter of clinical teaching. He thinks that elementary clinical work is too long delayed. The student, in the early part of his course, devotes his attention entirely to pure science, and at a certain time suddenly goes over to his final work in hospitals and lecture rooms. He may at once become a clinical clerk before he is at all fitted for his duties in such capacity.

We believe that it would be desirable to have the clinical element introduced into the teaching of medicine as early as possible, but before a student has completed his primary course he decidedly objects to these clinical features. He ever has before his eyes that "necessary evil," the primary examination; he has to do a vast amount of work to prepare himself for that serious ordeal, and he positively wants no "extra frills" in the shape of clinical "tips."

As far as Canada is concerned, the importance of the clinical aspects in teaching has been duly appreciated for many years; but we have come to the conclusion that the most feasible plan

is to give the students as much "pure science" as possible during the primary course, and make practical and clinical work the all-important element in the final course. The system adopted in Toronto of dividing the men of the third year into small classes under capable instructors, and teaching such classes what may be considered elementary clinical methods, has produced good results. We would consider it rather absurd to make a man who has just passed his primary examination, a clinical clerk without any preliminary training of any sort. The tendency has been to exalt the practical and bedside methods of teaching, and to largely diminish the didactic lecturing. The healthy rivalry between the schools in Toronto has done no harm, while the friendly feeling which to so large an extent prevails between them, has done positive good. Toronto and Trinity are commencing to realize that their best policy is to pull together in the great struggle for existence and pre-eminence which is taking place among the medical colleges of the world.

EXTRAORDINARY BLACKMAILING.

A most infamous system of blackmailing has recently been exposed in England. In the first place the blackmailers carried on a most disreputable business of selling abortifacient nostrums for a period of about two years. They then sent letters to those women who had used the drugs, threatening to prosecute them unless they paid a certain sum of money. A great many yielded to their exorbitant demands. The Judge in referring to the position of these unfortunate victims read a couple of letters. One writer, after expressing "the greatest sorrow for doing wrong," concluded: "But if I have done wrong I ask you to forgive me, as I did not know it was wrong, and I will promise you I won't do wrong any more, for Christ's sake. Amen." Another letter was from a poor servant girl, who sent the two guineas demanded, and begged for forgiveness. The Judge added that there were thousands of such letters.

After all evidence was given the Judge analyzed it, explained the law affecting blackmailing, and then gave the case to the jury. After deliberating three-quarters of an hour they

brought in a verdict against the three blackmailers. They also added a rider expressing their conviction that the vile plot could never have been possible but for the acceptance of the prisoners' immoral advertisements by a section of the press, religious and secular. The jury were also of opinion that means should be found to suppress such advertisements, and the institutions from which they emanated—a recommendation which the Judge said he would send to the Home Secretary. Two of the prisoners were sentenced to twelve years each of penal servitude, while the third was sentenced to seven years.

The London *Lancet* has recently investigated the nature of two of these nostrums used for the purpose of procuring abortions. It says that in one savaire appeared to be the active constituent of the pills, while in the other the liquid was a mixture of senna and rux tea. The letters from the *Lancet* to purchase the nostrums were so written as to leave no possible doubt in the vendor's mind that the purpose for which the purchase was being made was the induction of abortion. The *Lancet* says: "If any one should find in our conduct here matter for unfavorable comment on the ground that we have tempted Mr. Thomas Ottey to sin, we have to say that we found in him so willing an accomplice that we can hardly have been his seducers, and, secondly, that it is useless to fight a certain sort of stink with rose water."

POST-GRADUATE WORK IN LONDON.

Arrangements have recently been made in London which give Canadians and Americans improved facilities for post-graduate work. Dr. William Murrell gives some details concerning the new regulations which relate to such work, in the *Medical Brief*, January, 1899. Any Canadian or American physician can attend the practice of nine hospitals in London for three months on payment of a fee of seven guineas (\$37). He can attend the same for six months for a fee of ten guineas (\$52). Cards of admission can be obtained from the Secretary, Metropolitan Medical Schools office, West Wing, Examination Hall, Victoria Embankment, London, W.C. These tickets allow the holders full admission for all varie-

ties of practice in the following hospitals: Westminster, Guy's, St. Thomas's, Charing Cross, Middlesex, St. George's, St. Mary's, King's College and University College.

The number of visitors who have taken out such tickets during the last few months is large, and the regulations have given general satisfaction. There has been no overcrowding in the wards, and no friction with the regular students. In all the hospitals there are many departments open at the same time: for example, the medical wards, the surgical wards, the wards for special diseases of the eye, ear, nose, skin, etc., the operating theatre, and the post-mortem room. Dr. Murrell says that most of the visitors, after getting their tickets, make a tour of all the hospitals on the list, and then attend the practice of some one institution. Many who intended to remain for only three months have changed their minds and extended the time to six months or more. The Westminster Hospital, in which Dr. Murrell is one of the lecturers on medicine, issues a special ticket for twelve guineas (about \$62) to British, Colonial and foreign qualified practitioners, which will allow the holder to attend the hospital practice and all lectures for an unlimited time, "with a view to receiving a certificate of attendance for examination purposes."

THE PROGRESS OF A GREAT CHARITY.

Dr. Ryerson, General Secretary of the St. John Ambulance Association in Canada, has recently received the returns from the various Centres, which show that the Association's work is growing. The following figures show the number of persons who have completed the course of instruction since the establishment of the Association in Canada, but does not include those who have attended some but not all of the lectures. Some three hundred more should be allowed for them: Halifax, N.S., 258; Fredericton, N.B., 52; Montreal, 95; Westmount, Que., 106; Toronto, 727; Brantford, 30; Guelph, 26; Orillia, 50; London, Ont., 68; Vancouver, B.C., 68; grand total, 1,480.

The Association is established to give instruction in rendering first aid in case of accidents and sudden illness, in the elementary principles of ventilation and sanitation, also of nursing and in

carrying out works for the relief of suffering of the sick and wounded in peace and war, independently of class, nationality or creed. The lectures are delivered only by registered medical practitioners, and the Association is designed to be an aid to aid support, and not an opponent, of medical men. Opposition to the work of the Association arises either from ignorance of its objects and modes of working or from the littleness of narrow understandings. H. R. H. the Prince of Wales is the president of the parent association, and Sir George Kirkpatrick of the Canadian Department.

MILITARY MEDICAL REFORM.

The gratifying news has been received, just as we are going to press, that stretcher sections and stretcher bearers are at last authorized by the Government. Military medical reform has been warmly advocated in these columns for many years, and we are glad that, with the aid of an enlightened and progressive General in command, the Canadian militia at last sees better times ahead in a medical sense. We will refer to this subject at greater length in a subsequent issue.

Progress of Medical Science.

SURGERY.

IN CHARGE OF EDMUND E. KING, HERBERT A. BRUCE AND L. M. SWEETNAM.

Reactions in Cases of Wounds and Ulcers Treated by Oxygen Gas.

George Stoker (London *Lancet*, December 10th, 1898) gives the history of some cases of ulcers treated with oxygen gas, showing their toxic reaction, and giving their temperature charts. In nearly all cases treated by oxygen gas a distinct toxic reaction occurs at a period varying from a few days to a few months, and from the time of such occurrence the wound or ulcer heals much more rapidly. The discharges contained staphylococcus pyogenes albus aureus, or citreus. The points of special interest in these cases were, (1) that healing was not delayed, but was accelerated during and after the time the temperature was highest. (2) That the wounds did not become inflamed or dry, and the discharge continued healthy. (3) That there was a good deal of inflammation of the lymphatics and some swelling of the glands in the neighborhood of the ulcers. (4) That in some cases small secondary areas of infection existed where small abscesses formed, burst and healed rapidly. (5) That in all the cases observed the general malaise, or disturbance, was small in comparison with the height of the temperature. The tongue remained clean, there was little headache, and no sickness. Taking these facts into consideration, the author concludes that oxygen acts by forming an antitoxin from the secretion of the micro-organisms in the wound or ulcer. It is possible that the antitoxins which are made by injecting horses, etc., with toxins, are formed by a similar process of oxidation, which takes place in the blood of the animal. This would suggest the necessity of preparing an antitoxin for each separate case from its own micro-organisms, especially in more malignant forms, it being presumed that an antitoxin must have a toxin present on which to act or react. Antitoxins have been prepared by passing a stream of oxygen over a broth culture of the micro-organisms from each case; the broth is then dropped on the wound, where it is absorbed. The results from this method have been satisfactory, not only in cases of a non-malignant character, but also in cases of lupus and rodent ulcer. It is hoped and

believed that by working in this way and preparing antitoxin as above described, the satisfactory treatment of malignant disease may be ultimately reached.

Cerebral Tumors Successfully Removed by Operation.

Geo. E. Williamson (*Brit. Med. Jour.*, November 26th, 1898) reports two cases of cerebral tumors successfully removed.

CASE I.—Male, aged 34. Morning headache of two years' duration; vertigo. History of a fall followed by unconsciousness lasting for three days; paralysis of left arm and paresis of left leg; disappearance and reappearance with subsequent persistence of the paralysis; sensation of pins and needles in left hand and of hot water running down left arm. Double optic neuritis is well marked, but the sight notwithstanding is good. The knee-jerk is exaggerated, and there is well-marked ankle clonus in the left leg.

April 20th, 1897, he complained of feeling drowsy and of severe pain in the head. Shortly afterwards he vomited. At noon he had a fit. The left arm and leg and left side of the face were convulsed. He did not lose consciousness during the fit, which lasted about three minutes. There was well marked analgesia and anesthesia of the left hand and forearm.

Operation May 14th, 1897. A large flap, convex upwards, and consisting of the whole thickness of the scalp, was turned down at the right side of the head. The skull was trephined over the Rolandic area, and the hole enlarged with cutting forceps. When the dura mater was divided a tumor was at once seen on the surface of the brain. It was cut out with the handle of a scalpel, and was half the size of a tangerine orange. The cavity in the brain was lightly filled with gauze, and the scalp sutured without replacing any bone. The gauze was removed on the second day. Microscopic examination showed the tumor to be a small round-celled sarcoma. Shortly after recovering from the anesthetic he could move his left arm and leg almost as well as ever, but it was six days before the paralysis disappeared from the face. Patient made an uninterrupted recovery. February, 1898, patient followed his usual occupation. November, 1898, patient has remained pretty well since February. The swelling over site of trephine opening has increased and is harder than at first. Although patient's general condition is good, there is apparently local recurrence.

CASE II.—Female, aged 23. History—vomiting, headache and a fit followed by paralysis of right arm and paresis of right leg. In March, 1894, the patient began to suffer from frontal headache and vomiting. Sickness was pronounced in the morning, but gradually disappeared during the day, although the head-

ache persisted. On May 12th she felt her right arm and hand numb, and on the following morning but one, when attempting to get out of bed, she found she had lost all power of movement in her right arm, and that the fingers were firmly flexed into the palm of the hand. A fortnight later she had a fit. The convulsion was slight; she was unconscious for about an hour. On recovering consciousness she found that her right leg was now also paralyzed and numb. Condition on admission—partial paralysis of right upper arm, and loss of power in right forearm and fingers is complete. No impairment of sensation. Slight analgesia of right leg. In walking she drags the right foot as it is lifted heavily from the floor, when it is observed to be extremely tremulous. There is slight paralysis of the lower half of the right side of the face, and the tongue deviates to the right. Double optic neuritis in the first stage; pupils equal.

Operation November 14th, 1894. Details as in Case I. The growth was removed and with it a margin of healthy-looking cerebrum. The tumor proved to be a simple angioma. There was loss of speech (aphemia) after the operation. November, 1898: she has almost complete use of words. Slight fattening of right side of face. Complete power in muscles of upper arm, but fingers are spasmodically flexed in hand and do not relax readily. She can walk well, but gait is that of an old hemiplegic. There has been no return of the cerebral growth.

Surgical Treatment of Cancer of the Stomach.

Guinard (*Thèse de Paris*, 1898) collected 302 cases of resection of the stomach. He holds that every new growth of the stomach should be treated by resection as long as that operation is possible and justifiable on the grounds that the general condition of the patient is satisfactory. The mortality of the operation, once very high, is steadily decreasing. Kahn, in 1883, gives a percentage mortality of 85. The author makes out a mortality of 35 per cent. in 291 cases of pyloro-gastric resections within the last eight years. The certainty of recurrence is not so constant as might be supposed. Löbker reported two cases free from recurrence, five and seven years after operation respectively. Guinard states that forty-five out of 131 patients who recovered from resection of the stomach, were at least alive at the end of a twelvemonth. Surgeons should interfere early and cut well beyond the diseased area. He admits that diagnosis is extremely difficult in the earlier stages of cancer of the stomach. Even when the abdomen is opened by the knife, and the tumor is to be felt and seen, it is not always easy to be certain that it is a cancer. Histological evidence alone can decide, and this is not easy to obtain. He holds that under two conditions explora-

tory operations are justifiable: (1) Distinct modification of gastric chemistry, especially aepsia and the presence of lactic acid after a test meal. (2) Complete failure after careful dietary and medical treatment to keep the weight of the patient's body up to its normal weight, or to restore lost weight. Recent experience has shown that exploratory incision for that condition is void of danger, whilst it too often shows that even resection is impracticable. It is only a fifth of all cases where symptoms give good reason to believe that cancer of the stomach exists in an early stage that are amenable to surgical treatment.

The X-Rays in Diagnosis of Renal Calculus.

Ringel (*Centrabl. f. Chir.*, 1898), by experiments in the laboratory and observation on the living subject, has concluded the uncertain results attending the use of the X-rays, in cases of supposed renal calculus, are due to the fact that the transmission of the rays is influenced by the chemical composition of the calculus. Whilst an oxalate of lime calculus forms a well-defined picture, a urate calculus presents but an indistinct outline; and a phosphatic calculus, which, like a gall-stone, transmits the rays, is almost, if not quite invisible. The absence of a shadow, therefore, is no proof that a renal calculus is absent; and this rule will apply even to cases of oxalate calculi, or the outlines of such deposits may be obscured by pus or turbid urine. The X-rays are still more unsatisfactory in cases of vesical calculi, as the author has succeeded only twice in making out by skiagraphy the presence of a stone in the bladder, whilst in several cases of a very large stone removal by operation on the living subject or after death, no traces were afforded by this method of investigation.

THERAPEUTICS.

IN CHARGE OF GRAHAM CHAMBERS.

The Treatment of Uremia of Nephritis by Tapping and Venesection.

Ewald, of Berlin, at the recent meeting of the British Medical Association, strongly advocated this method of treatment. He called attention to the fact that the mode of action of many of the diuretics now in use is not thoroughly understood, and may be due to irritation of the secretory elements of the kidney, and that the cure of nephritic dropsy by diuretics and hydragogue cathartics was usually tedious. The writer advocated early puncture for ascites and pleuritic

effusions. Anasarca should be treated by needles introduced into the subcutaneous tissue, parallel to the skin. If one or two needles are introduced into each leg it is possible to draw off three to five litres of serum in a day. The strictest antiseptic precautions should be carried out in all the manipulations. The wound around the cannula should be dressed with salicylic cotton and iodoform collodion. A rubber tube should be attached to the protruding end of the cannula for conducting the fluid to a vessel on the floor beside the bed. The rubber tube can be fixed to the mattress by means of a safety pin, and thus prevented from pulling on the cannula. Ewald considers Southey's tubes too small, and advocates the use of needles such as are used in tapping the pleura.

The writer also calls attention to the value of venesection, followed in some cases by the intravenous injection of normal saline solution. He does not consider it necessary in every case, but when ordinary remedies do not give relief, and the strength of the patient will permit, blood-letting should be adopted.

The Treatment of Movable Kidney.

In a recent issue of the *Medical Record*, Einhorn discusses the medical and surgical treatment of this disease. We abstract the following conclusions, which indicate his views on the subject:

1. Nephroptosis frequently does not give rise to subjective symptoms, and is usually associated with ptosis of other abdominal organs.
2. The digestive symptoms, present in many cases, frequently do not depend upon the movable kidney, hence nephrorrhaphy will not relieve them.
3. The results of nephrorrhaphy are unsatisfactory in one-third of the cases, and are no better than medical treatment.
4. The mortality of nephrorrhaphy is about 2 per cent.
5. Rational medical treatment, such as rest in bed, massage, electricity, the application of a good fitting abdominal bandage etc., should be tried before surgical measures are considered.

Death from Hypodermic Injection of Bichloride of Mercury.

At the recent annual meeting of the Italian Society of Dermatology and Syphilography, Professor De Amicis reported a curious accident that happened after the hypodermic administration of mercuric chloride. The injection was made in the left side on a level of the angle of the scapula, when the patient was seized with severe pain, vertigo and a feeling of impending death. This was followed on the next day by paraplegia and partial loss of sensation in the left leg. Then followed paralysis

of the sphincters of rectum and bladder, bed-sores, and finally death. No *post-mortem* examination was made, but Professor De Amicis considered it a case of transverse myelitis, following an ascending neuritis—the result of an injury to an intercostal nerve.

The Treatment of Coryza.

In the *Revue de Thérapeutique Médico-Chirurgicale*, Galois is credited with giving the following treatment in coryza. As abortive treatment frequent inhalation of the vapor of tincture of iodine, cologne water or chloroform, or the following prescription:

℞ Pure carbolic acid.	
Ammoniac, of each	1 drachm.
Alcohol (90 per cent.)	2½ drachms.
Distilled water	½ ounce.

Every half hour place a few drops on a handkerchief and inhale.

Or, on the first day, every two or three hours the following powder may be snuffed up the nose:

℞ Hydrochlorate of cocaine	2 grains.
Boric acid	3 drachms.
Salol	3 drachms.
Menthol	2 grains.

Or.

℞ Salol	1 drachm.
Boric acid	6 drachms.
Tannin	15 grains.
Salicylic acid	15 grains.

To allay irritation of nasal orifices the following salve may be used:

℞ Subnitrate of bismuth	1 drachm.
Vaselin and lanolin, each	1 drachm.

As a palliative treatment the congestion may be relieved by atomization into the nostrils of the following solution:

℞ Hydrochlorate of cocaine	15 grains.
Distilled water	3 ounces.

—*Therapeutic Gazette.*

The Treatment of Diabetic Coma.

Robin (*Bull. de Therap.*) discusses this subject, and gives the following treatment which is based upon the probable assumption that the coma is due to toxemia and diminished alkalinity

of the blood. He advises the early administration of the following solution intravenously :

R. Sodii chloridi	1 drachm.
Sodii bicarbonitis	2½ drachms.
Aquæ destillatæ	2 ounces.

In addition saline hydragogue cathartics, such as sulphate of sodium, should be given to produce watery evacuations of the bowels. The exhibition of large doses of bicarbonate of sodium by the mouth will also materially assist in increasing the alkalinity of the blood. Robin believes that a strict milk diet is the best in these cases. When the heart becomes weak and irregular he recommends full doses of digitalis and ergotin.

The Administration of Antitoxin by the Rectum.

Dr. O'Connor, of Sowestoft, administers diphtheritic antitoxin by the rectum, and believes that absorption is both rapid and complete. He claims markedly good results, while at the same time there were very few complications.

The Importance of Cleanliness in the Treatment of Gonorrhœa.

Professor Tarsar, of Berlin, believes that epididymitis, which frequently occurs as a complication of gonorrhœa, is always due to secondary infection—the result of want of cleanliness on the part of the patient. He states that the injections have usually very little antiseptic power, and, as a rule, the patients never disinfect their hands and syringe before using an injection. Professor Tarsar has never known a case of epididymitis to occur in gonorrhœa not treated by injections.

ORTHOPEDICS.

IN CHARGE OF CLARENCE L. STARR.

Treatment of Club-foot.

R. W. Murray, F.R.C.S., of Liverpool, presented a very practical and concise paper, with photographs of results, on the treatment of club-foot, before the section of Diseases of Children, British Medical Association. He first considers the treatment of the deformity in infants and subsequently in older children.

In infants, if the deformity is not severe, manipulation alone may suffice to correct it, or manipulation with retention bandage after division of the tendo Achillis. In more severe cases he operates by dividing subcutaneously the plantar fascia and all

resisting tissues on the inner border of the foot, just in front of the internal malleolus, down to and including the astragaloscaphoid ligament. The varus deformity can then be over-corrected and the tendo Achillis divided. A plaster-of-Paris bandage is applied over the dressing and is renewed once in three weeks for about two months, when all splints or plasters are discarded, relying on daily manipulation to prevent recurrence. The author reports 117 cases thus operated on and claims very satisfactory results.

In older children, where, besides the ligaments and plantar fascia, the bones play an important part in keeping up the deformity, he considers a more extensive operation necessary. After giving his objections to the operations most commonly practised, such as wrenching, Phelps's operation, and removal of the astragalus, he says that the operation of removal of a wedge of bone from the convexity of the foot, as first performed by Mr. Davies-Colley in 1875, appeals to him most strongly. He emphasizes the necessity of thoroughly cleansing the foot before operation, as it is especially hard to render the parts aseptic, the skin being thick and callous and the dirt ground in. Another point he emphasizes is the removal of a wedge sufficiently large to allow the varus deformity to be easily corrected or in fact over-corrected. The tendo Achillis is next divided, the tarsotomy wound completely closed and a back splint with foot-piece applied. The wound is dressed in a week and again in a fortnight, when a plaster-of-Paris splint is applied, and the child allowed to walk in it at the end of two months. Ordinary shoes are subsequently applied. The writer reports fifty-two cases operated on after this plan, which in his hands has proven the most satisfactory method of treatment.

Round Shoulders.

The subject of round shoulders in growing children is usually considered so trivial and commonplace that very little attention is given to it, and as a consequence parents are compelled to treat the existing deformity after their own fashion. Shoulder braces are usually applied, and they for the most part strengthen the already strong pectoral muscles and allow the trapezius and back muscles to atrophy from disuse.

Mr. Bernard Roth, of London ("Trans. Amer. Orthopedic Assn.," Vol. I.), writes very strongly on this subject, and says that shoulder straps and braces are not only useless, but absolutely injurious when prescribed for weak back. He maintains that the treatment should be purely postural and gymnastic, and that all cases may be cured with proper instruction along this line.

Dr. E. H. Bradford, of Boston, has published a very practical

paper on the subject, which shows his usual carefulness of observation, and should stimulate all who read it to give more attention to the subject, especially as along with the unsightly deformity of the spine there is a marked narrowing of the chest. He classes the deformity as one of kyphosis frequently seen in growing boys and girls, and in weak adults. The shoulders are drooped and the scapulæ displaced forward, leaving the vertebral borders projecting like wings. The neck is thrown forward and there is a prominence of the abdomen owing to an increased hollowing of the small of the back. On attempting to raise the arms upward to a vertical line beside the head, one notices a limitation of motion, the vertical line being only reached by increasing the lumbar lordosis and the prominence of the abdomen. The limitation of motion is primarily caused by the clothing dragging the shoulders forward. For fear of injury to the pelvis, the clothing of growing children is, for the most part, swung from the shoulders. The skirt and often the under garments and stockings are attached to the waist, which is supported by a narrow band passing over the shoulder about the middle of the clavicle and making pressure on the edge of the trapezius. The bulk of this not inconsiderable weight falls in front of the line of gravity, and the forward dragging on the shoulders and pressure on the sternum caused the child to seek the position of greatest comfort, which is the faulty position. This position maintained for a great part of each day naturally causes the soft tissues, muscles and ligaments to adapt themselves to the new position, and the limitation of motion naturally results. The prevention is a more important point to consider than the cure. This is easily accomplished when the cause is understood. The clothing should be so arranged that none of the weight of skirt or underwear should drag on the front of the waist, and the waist should exert no pressure on the sternum. The shoulder straps should be wide and rest on acromion process and not on the middle of the clavicle. In growing children the weight of clothing should be borne as far as possible from the hips, and not from the shoulders; the treatment as already intimated being postural and gymnastic, and extending over a sufficient length of time to strengthen the weak muscles and stretch the shortened ligaments.

Tenderness of Heel Due to Exostosis of the Os Calcis.

Dr. G. M. Lowe reports (*Brit. Med. Jour.*, October 15th, 1898) six cases of tenderness or pain on lower surface of the os calcis just at the attachment of the long plantar ligament. No pain is complained of when the foot is at rest, but when the foot is pressed, pain resembling the prick of a needle is felt. A small

nodular substance can sometimes be felt at the painful point. Skiagraphs were made of six cases and they showed a ring of bony growth surrounding back part of the os calcis, giving a hammer-head appearance to the bone. Four of the cases were women engaged in shop work, standing all day and habitually wearing thin-soled shoes. One was a young man engaged as clerk, whose occupation necessitated him standing long hours every day. The treatment consists of the application of a ring of felt around the tender point which relieves the pressure on the part.

OPHTHALMOLOGY AND OTOLOGY.

IN CHARGE OF G. STERLING RYERSON.

The Sixth International Congress of Otolology will be held in London from August 8th to 12th, under the presidency of Dr. Urban Pritchard.

The Ninth International Congress of Ophthalmology will be held in Utrecht, Holland, August 14th to 18th, under the presidency of Dr. Argyle Robertson, of Edinburgh. The official languages at both Congresses will be English, French, German and Italian.

The Use of Holocain in Eye Practice.

Hinshelwood (*Brit. Med. Jour.*, September 3rd, 1898). The writer made a large number of observations with a 1 per cent. solution, with the following results:

1. There is complete anesthesia of the cornea produced in from fifteen to thirty seconds after instillation.
2. The anesthesia lasts about ten minutes.
3. There is immediately after instillation a slight feeling of burning, which rapidly passes away.
4. There is produced shortly after instillation a slight hyperemia of the bulbar and palpebral conjunctiva, which rapidly passes off.
5. There is no alteration in the size of the pupil.
6. There is no disturbance of the accommodation.
7. There is no alteration in the tension of the eye.
8. The corneal epithelium is not changed in the slightest, but retains its normal appearance.

In short, holocain has no other effect upon the eye than to produce anesthesia, in which it differs materially from cocain. Another advantage of holocain is the great rapidity of its action, producing anesthesia in from fifteen to thirty seconds. Therapeutically holocain is useful in photophobia and blepharospasm. It can also be used to advantage as a preliminary

application to nitrate of silver to allay pain. In operations the anesthetic effect of holocain and cocain are about equal, but the former is much more rapid in its action. Only three or four drops are necessary for the anesthetic action. In iridectomy it had the great advantage of not altering the size of the pupil. No toxic action has been observed in these cases of operation. Internally holocain is a poison producing convulsions analogous to strychnine. It should not be used hypodermically. According to Heinz a 1 to 5 solution is powerfully antiseptic, as proved by experiments on bacteria, and therefore it is not necessary to boil the solution in order to sterilize it, which is an advantage.

[My experience has been that holocain is somewhat insoluble and that it is difficult even to get a clear 1 per cent. solution. I have also remarked more irritation than the previous writer has, after application. It is also hard to keep and should be made fresh every day or two.—G. S. R.]

An Artificial Cornea.

Saltzer, of Munich (*Ueber den Kunst, Hornhaut*). According to S., transplantation of living cornea is a failure. He advocates the insertion of a chemically inset-body hoping that it may become incysted. S. seems to have accomplished this in several cases by using a button of rock crystal with a ring of platinum in which are hooks which are imbedded in the cornea. This rock crystal is in collar-button form. The hooks are fastened to the ring of platinum and then are forced into the cornea to hold the button in place. It is remarkable that these hooks do not cause ulceration or irritation of the cornea. Still more remarkable, persons who have simply a leucoma and have perception of light, have materially improved sight by wearing these buttons. He gives the following as the indications for the operation:

1. Inflammatory processes must have entirely ceased for a long time.
2. The cicatricial tissue must have undergone complete contraction.
3. The tension must be normal.
4. Light sense and projection must be good.

He describes in detail special instruments for this operation.

Influenza in its Relations to the Middle Ear.

J. Nathan (*Würzburg inaugural thesis, Annals of Otolology*, November, 1898). There are three recognized forms of influenza, the catarrhal, the nervous and gastro-enteric. Of these the two first only affect the ear. Influenza otitis affects the ear

either at its beginning, the early form; or after it has run its course, the late form. Most authors agree that the former is caused by the influenza bacillus itself, the late form being due to a secondary infection. The early forms, which represent the pure influenza process in the ear, are characterized by hemorrhagic inflammation. These hemorrhages do not occur in all cases, only in a proportionately small number, but hemorrhagic otitis media is met with more frequently in influenza than in other infectious diseases.

These early forms attack mostly persons in the middle and later periods of life; children enjoy a certain immunity. Before the influenza symptoms have subsided, the patient complains of pains in the deep parts of the ear. This is preceded in some cases by more or less epistaxis. The pains increase in intensity and radiate to side of the head and even to the side of neck and chest. A rise in temperature, accompanied or preceded by chills, takes place. There are generally annoying subjective noises and often abnormal sensitiveness to sounds. Hearing diminishes, even to complete deafness of the affected ear. The drum membrane is deeply congested, bulging from accumulated fluid with hemorrhagic points varying in size from a pin-head to that of a pea. The hemorrhagic blebs may appear in the external canal also, or there may be hemorrhagic myringitis without involvement of the middle ear. After a few hours, usually, a perforation takes place with the discharge of a sanious fluid—in some cases a hemorrhage lasting several hours. In other cases the discharge is purulent from the beginning; in these cases the mastoid is usually involved.

Koerner distinguishes four forms of pure influenza otitis:

1. Cases in which there are hemorrhagic exudates and hemorrhagic blebs on the drum membrane from the beginning.
2. Cases in which the drum membrane pouts and the granulations of the thickened mucous membrane crowd through the perforation.
3. Primary disease of the mastoid process, with secondary inflammation of the tympanum.
4. Ring-shaped hemorrhages of the drum membrane.

The Employment of Solutions of Toluidin-blue as a Collyria in Corneal Ulcers and Abrasions.

Clarence Veasey (*Philadelphia Med. Jour.*, August 13th, 1898). This compound is a member of the aniline group closely allied to methylene blue. V. has been using the Toluidin-blue in solutions varying in strength from 1-50 to 1-10,000. No pain or discomfort are caused by the stronger solutions. It has the additional effect of staining and showing up abrasions of the cornea which otherwise were unnoticed. This action is

allied to that of fluorescin. The reparative process is materially hastened by its use.

Boils in the External Auditory Canal.

Field (*Brit. Med. Jour.*, July 1st, 1898) thinks that for relief of pain nothing is better than glycerine. It acts by relieving tension, and when used should be mixed with an equal quantity of tincture of opium and some boric acid.

[The most rapid relief is afforded by incision, which should be free and down to the periosteum.—G. S. R.]

PATHOLOGY AND BACTERIOLOGY.

IN CHARGE OF J. CAVEN AND H. B. ANDERSON.

Tuberculosis of Aorta.

George Blumer, Bender Hygienic Laboratory, Albany, N.Y. (*Amer. Jour. of Medical Sciences*, January, 1899) reports two cases of this rare condition that have come under his own observation. He finds but few cases already recorded, and these fall under two heads: (1) Infection of aorta by extension of growth from surrounding structures; (2) direct implantation of the infective material from the blood. Blumer's cases belong to the latter category.

The records of cases of infection by extension have been made by Dittrich, Kamen and Sigg, the first two resulting from adhesion of tubercular lymph glands to aorta, the third from adhesion of caseating lung to aorta. The patients were all males, aged twelve, twenty-four and sixty-four years respectively.

Of the second class of cases Blumer finds reported two by Weigert, one by Flexner, one by Hanot and Lévy, and one—doubtful—by Stroebe. Blumer's own cases were seen, the first in the Pathological Laboratory of the Johns Hopkins University and Hospital, and the second in the practice of Dr. G. E. Gorham, of Albany, N.Y.

CASE 1.—Colored man, age, forty-five years; *post-mortem* examination revealed chronic tuberculosis of peritoneum; acute miliary tuberculosis of lungs, liver, spleen, kidneys, intestine, adrenals, pancreas, trachea, bronchia, epididymis, testicle, bladder, brain membranes, bone marrow and aorta, besides other lesions, non-tuberculous. The tubercular disease of the aorta appeared as three small nodules on the intima of the descending portion, all below the level of diaphragm, pin-head size or slightly larger, and showing tubercle bacilli upon proper treatment.

CASE 2.—Woman, white, aged fifty years; *post-mortem* examination revealed chronic tuberculosis of apex of right lung, miliary tuberculosis of both lungs and capsule of spleen, miliary tubercle of spleen and liver, caseous tubercles of kidneys, tubercular ulcers of stomach and ileum, tubercle of descending aorta. The tubercular disease of aorta appeared as one pin-head-sized nodule projecting from intima of descending portion. Giant cell formation was seen and tubercle bacilli were found in abundance by staining with carbolfuchsin, etc.

Although infection of the aortic wall through the vasa vasorum is possible, it would appear from examinations made that in recorded cases the intima has been attacked directly from its surface. Some previous damage to the intima, *e.g.*, atheroma, would undoubtedly conduce to the necessary lodgement of bacilli. That pre-existing lesions do favor such lodgement is shown by the fact of a cancer of the esophagus becoming tubercular as reported by Cordua, and cicatrices of both stomach and esophagus suffering in the same way in Breus' experience.

Protective Action of the Liver against Microbes.

Roger (*Sém. Méd.*, October 19th, 1898) describes his recent results on the subject (Paris Society of Biology). In 1897 he found that certain cultures of anthrax bacillus introduced into a branch of the portal vein did not kill rabbits, whereas cultures of the same virulence injected into other blood vessels did cause death. He then found that the lungs possessed a protective action against the streptococcus, whilst the liver possessed none. The staphylococcus aureus grows rapidly in the brain, but, like the anthrax bacillus, is destroyed by the liver. The liver seems to be powerless against bacillus coli, and even to favor the growth of this microbe. Both liver and kidney arrest the growth of oïdium albicans. Recently Roger has made further experiments on rabbits to determine what conditions modify the protective action of the liver. This protective action is less marked when the animal is kept without food, but remains observable even after three days of fasting. If $\frac{3}{4}$ c.cm. of a sterilized culture of bacillus prodigiosus is injected into an intestinal vein, the liver loses all its protective power against staphylococcus aureus. Large doses of glucose—given by the mouth—weaken the protective power of the liver, whereas small doses increase it. The effect of ether is most striking; 5 drops of ether injected into the portal vein, or 2 c.cm. given by the mouth, abolish the protective action of the liver, whereas small doses by the mouth—2 or 3 c.cm. of a solution of ether in alcohol and water—increase it. When the ether is injected subcutaneously

its effect is much less marked. Perhaps the beneficial action of potions containing ether, in the case of patients with infectious diseases, may be explained on the supposition that dilute doses of ether given in this way increase the protective action of the hepatic cells against certain microbes.—*Brit. Med. Journ.*

A Pathogenic Diplo-bacillus in Human Conjunctivitis.

Morax (*Ann. Pasteur Institute*, June, 1896) says: It is generally recognized that a number of different forms of bacteria may cause conjunctivitis. In many instances the general appearance and the development of a case will enable one to definitely determine the organism exciting the trouble. At times, however, this is impossible, and the bacteriologist has to be called in, since even the same germ may give rise to different manifestations anatomically regarded.

In health the lachrymal secretion contains but few organisms, examination often giving a negative result: the determination of their presence or absence in disease, therefore, is not difficult. In the acute stage the secretion contains only the micro-organism causing the inflammation.

Amongst the bacteria already described as exciters of conjunctivitis are the gonococcus and the bacillus of Weeks. We purpose to report now the finding of a diplo-bacillus as causative in some mild forms of the disease.

The clinical characters which justify the designation sub-acute, are marked enough to render diagnosis easy; its mildness, long duration, symmetry (being bilateral) and rapid subsidence under appropriate treatment sufficiently point it out. It falls under the old group of catarrhal conjunctivitis.

This form develops without any apparent cause.

Caseation of Supra-renal Capsules.

Sergent and Bernard have studied a case in which the patient succumbed to what appeared an acute intoxication. At the autopsy the supra-renals were found caseated, although there had been no symptoms pointing to Addison's disease.—*Le Progrès Medical*, January 7th, 1899.

Typhoid and the Spanish War.

J. M. Da Costa (*Internat. Med. Magazine* of January 1st, 1899) makes a short but interesting report on some typhoid cases occurring among soldiers, who became infected whilst on service during the late war with Spain: The Pennsylvania Hospital received in all one hundred and thirty-five typhoid cases—soldiers. Of these, sixteen, or nearly twelve per cent., suffered from phlegmasia alba dolens whilst ill or convalescing from the

fever, the general percentage of this complication being from one to two. Of the sixteen cases, five had the left leg affected, eleven had both legs affected. In one case the attack came on the fiftieth day of the disease.

Da Costa formerly held with most others that phlebitis was always present; now he believes that thrombosis is the essential lesion, with or without phlebitis. The pressure of the clotted vein upon the artery may cause arterial thrombosis as well. This is rare, as also is a fatal result from phlegmasia.

Typhoid Bacillus in Cider.

Dr. E. Boden (*Ann. de l'Institut Pasteur*, Juillet 25th, 1898, page 464) says:

1. Typhoid bacilli introduced into cider are destroyed in from two to eighteen hours after introduction.

2. Destruction is due to acidity of cider: two grammes of malic acid per litre are necessary to insure it in the time specified. The less the acidity the longer the germ lives. In neutral cider it may survive twenty days.

3. Most commercial ciders have more than two per one thousand of malic acid, and accordingly the germ commonly lives no longer than eighteen hours. Dilution with contaminated water renders the cider capable of causing the disease for a varying length of time—varying with the reduction of acidity.

Bacterium Coli Com. as Cause of Urethritis.

Josiporice (*Centralbl. f. d. Krankh. d. Harn u. Sexualorgane*, B vij: H. 10; p. 663) reports two cases of urethritis resembling gonorrhœa, from the discharges of which he isolated the bacillus coli communis, no gonococcus being found. He proved the identity of the bacillus by microscope and by cultures.

LARYNGOLOGY AND RHINOLOGY.

IN CHARGE OF J. PRICE-BROWN.

Bilateral Tumors of the Septum.

Pegler (*Jour. Lar., Rhin. and Otol.*, October, 1898) divides these growths into two varieties: the lymphoid and the erectile. Their chief interest lies in their etiological relationship to nasal obstruction, paresis of the soft palate, and sigmatic dyslalia or affections of speech.

Of the lymphoid variety the author reports one case. This consisted of a growth on each side of the septum, about three

millimetres from the posterior border. The tumors were attached by a broad, tough pedicle, and projected into the nasopharynx. They were oval in shape, pale in color, and mammillated on the surface. Microscopically they consisted solely of lymphoid tissue, encapsuled by ciliated epithelium. There were no adenoids, but large hypertrophies of the middle and inferior turbinateds were present.

The erectile variety appeared as parallel longitudinal ridges, extending along the septum from before backwards at the level of the tubercle. They, too, are broad-based, pink in color, and sometimes lobulated. Microscopically they are composed of erectile tissue, mingled with masses of lymphoid cells.

The treatment of the lymphoid tumors was removal by cold snare and spoke shave, aided by the finger in the naso-pharynx. The erectile growths were excised by means of a curved, probe-pointed tonsil knife, the snare being used to engage what had escaped abscission.

The Abuse of the Electric Cautery in the Nose.

Holbrook Curtis (*Laryngoscope*, January, 1899) sounds a judicious note of warning against the too free use of the galvano cautery in operative treatment of the nose, more particularly in the treatment of deformities of the nasal septum. The mucous membrane covering the triangular cartilage is very thin and tensely stretched, and when spurs and projectures occur, may be even more attenuated. Mal-nutrition in this area readily takes place, and when the galvano cautery is applied, the destructive change which occurs in the cartilaginous cells, is very likely to produce serious mal-nutrition. Virchow has recently shown that cartilaginous repair can only arise from proliferation of pre-existing cells. The effect of the galvano cautery is to change the nature of these cartilage cells and destroy their power of healthy proliferation. The consequence is, that clean-cut incisions, whether by saw, knife or trephine, are much more amenable to the healing process.

Curtis closes an able article, replete with just criticism, with a report of two cases of perforation of the cartilaginous septum, occurring in women, and in each instance caused by the over-officious use of the galvano cautery.

Hematoma, Abscess and Serous Cyst of the Nasal Septum.

M. G. Garel (*Arch. Internat. de Laryng., Otol., Rhinol.*, 1898) describes the three phases through which fluid collections in the septum usually pass. The origin as a rule, is traumatic, commencing as hematoma and ending in abscess. Sometimes, however, abscess is the first manifestation, following injury.

Abscess may also occur as a result of erysipelas, variola, typhus, etc. The author had met, likewise, with three cases of serous cyst of the septum. He usually treated the latter by caustery puncture without the use of artificial drainage.

Acquired Tongue-tie.

Arthur Powell (*Brit. Med. Jour.*, December, 1898) records the history of an instance of this condition occurring in a Bengali lad, aged eight years. Nearly half the lower lip, from the right angle to opposite the right central incisor tooth was firmly united to the margin of the tongue for a corresponding distance. All the lower teeth on that side had fallen out, except the median lower incisor. Three years previously he had suffered from an ulcerative stomatitis of scorbutic origin. The teeth fell out at the time, and the ulcerated surfaces of the tongue and lip united along the line of contact. They had remained in that condition ever since. The union was firm, involving the whole thickness of the tongue.

On the Pathology of Diphtheritic Paralysis.

F. E. Batten (*Jour. Lar., Rhin. and Otol.*, October, 1899) bases his paper on the examination of six cases by the Marchi method.

The result of the examination was that he found "degeneration of a parenchymatous nature in various cranial nerves, in the anterior and posterior nerve roots, and in the nerve fibres as they pass through the white matter to the grey matter of the spinal cord, in the vagus, phrenic and peripheral nerves, and also on both sides of the posterior root ganglia."

In conclusion, the author regards the dominant lesion in diphtheritic paralysis as a parenchymatous degeneration of the myelin sheath, affecting both sensory and motor elements.

Tonsillar Calculi.

Aitchison Robertson (*Brit. Med. Jour.*, January, 1899) reports a case of enormous tonsillar calculus, occurring in a man aged 50, and weighing one ounce. About six years previously, he began to have repeated attacks of tonsillitis. These often ended in suppuration. About three years later the sub-maxillary glands on right side began to enlarge and become painful. They ultimately suppurated and discharged by a small sinus in front of the neck, at the level of the thyroid cartilage. After a while the discharge ceased, to be followed by diffuse cellulitis of the neck. This extended from the right ear down to the sternum. The sinus was slit up and pus freely evacuated. The wound then healed, and for two years the patient was well.

During the past summer he again suffered from slight cold, and could only take fluids in sips. While he was supposed to be recovering, he was awakened one night with a sense of suffocation. Violent coughing followed, and he forcibly ejected an elongated oval stone measuring by its longest diameters $1\frac{3}{4}$ by $1\frac{1}{2}$ inches, and weighing almost an ounce. Relief was at once experienced. There was no bleeding; and two days later when the throat was examined, a hollow behind the right tonsillar pillar indicated its former position. The calculus was pale-yellow in color, worm-eaten in appearance, and while fresh had a very unpleasant odor. Query? How could such an enormous stone have remained in position for years without having been discovered?

Case of Chronic Abscess of Naso-pharyngeal Vault.

Ardénne (*Rev. Hebd. de Lar.*, February, 1898) reports a case of this exceedingly rare affection. On examination a smooth, red, globular mass was found attached by a broad base to the vault. It was about the size of a walnut, and was filled with yellow non-fetid pus, which escaped on accidental rupture of the abscess during digital examination. After freely opening it, and swabbing out the cavity with zinc chloride, the parts healed.

A Case of Bulbar Paralysis.

Herr Baumgarten (*Monats. für Ohrenheilk.*, June, 1898) reports the history of a case occurring in a hotelkeeper, aged 40. He complained of difficulty in speaking and of choking when he ate or drank. His lips and palate were paretic, and the left half of the tongue was wasted. The epiglottis was erect and remained so, its depression being paralyzed. The right cord moved very sluggishly, and the internal tensors were paretic. Sensibility was reduced, but reflex action and electric excitability were still present.

In central paralysis the reflexes are long retained, but finally disappear; in peripheral and toxic paralysis they disappear soon but return quickly. Central paralyses are generally bilateral, and the laryngeal conditions may suffice for diagnosis. The auditory nerve generally escapes.

Thyrotomy for Epithelioma of the Larynx Successfully Performed in a Man aged Eighty Years.

Middlemas Hunt (*Jour. Lar., Rhin. and Otol.*, October, 1898) reports an exceedingly interesting case of successful operation for the removal of intrinsic cancer. The chief interest lies in the great age of the patient. On examination the anterior

part of the glottis was found to be filled with a pinkish white growth, which had begun to break down and ulcerate. It sprang from the anterior part of the upper surface of the left vocal cord.

Owing to the great age of the patient the operation was divided into two stages: the first, tracheotomy; and five days later, the 2nd, thyrotomy, removing the growths and surrounding soft parts.

Although attended by the development of pneumonia during the second week after operation, the man made a good recovery. Nine months later he was still doing well, with steady improvement of the voice. Microscopic examination verified the case to be one of epithelioma.

Personals.

Dr. Allen Baines, of Toronto, spent a few days in New York early in January.

Professor Osler, of Baltimore, paid a flying visit to Toronto during Christmas week.

Dr. Charles O'Reilly, Superintendent of the Toronto General Hospital, spent Christmas in New York.

Dr. Thos. S. Cullen (Toronto, 1890), of Baltimore, spent a few days during December with his friends in Toronto.

Dr. Garnet Holmes (Toronto, 1898), of Chatham, is taking a course at Moorefield's Ophthalmic Hospital, London, England.

Dr. W. T. Stuart has been appointed Professor of Chemistry in Trinity Medical College in the place of Dr. Kirkland, deceased. He has been connected with that institution for many years as Professor of Practical and Analytical Chemistry.

Dr. George R. McDonagh, of Toronto, left the city January 22nd, and after spending a few days in New York took the steamer for Genoa. He expects to see something of Italy, Turkey, Egypt and Palestine, after which he will visit some of the hospitals in Europe.

Dr. James E. Graham, of Toronto, intended to have gone with Dr. McDonagh, but on account of the illness of his father, was unwilling to go so far from home. He is, however, taking a short holiday of three or four weeks. He left Toronto for Florida, January 26th.

Obituary.

Feb. 1899

WILLIAM YOUKER, M.D.—Dr. Youker, of Belleville, after a short illness from appendicitis, died January 11th, 1899.

JOSEPH JARDINE, M.D.—Dr. Joseph Jardine, of Sunderland, died January 17th, of typhoid fever, aged 34. He was a Trinity student in medicine, and received the degree of M.D. from Trinity University in 1890.

EDWARD ROBINSON WOODS, M.D.—Dr. E. R. Woods died at Galt, December 29th, 1898, aged 37. After finishing his undergraduate course in Trinity Medical College, he received the degree of M.D. from Trinity University in 1878. He afterwards did post-graduate work in England, and became L.R.C.P. Lond.

WILLIAM B. DUCK, M.D.—Dr. W. B. Duck died at his home in Preston, after a brief illness of one week, January 20th, 1899. He received his medical education in Trinity College, and received the degree of M.B. from the University of Toronto, and also from the University of Trinity College in 1879. He was successful as a practitioner in Preston, and took much interest in public matters. He was an active member of the Conservative party, and was a member of the Public School Board for several years, and chairman of the same during last year.

GEORGE SAMUEL HEROD, M.D.—Dr. Herod, of Guelph, died January 25th, of pneumonia, after an illness of about a week. He was born in Lancashire, England, in 1827, and came to Canada in 1840. As a medical student he received his education in the medical department of King's College, Toronto, and passed his final examination before the Upper Canada Medical Board in 1847. After taking charge of the Emigrant Hospital in Hamilton for a few months he commenced practice in Georgetown. In 1854 he went to Guelph and formed a partnership with Dr. Wm. Clark, M.P. He possessed great abilities and untiring energy, and was the leading physician of Guelph and vicinity for many years. He was a coroner and surgeon to the gaol for about forty-five years. He was the surgeon of the Wellington Battalion for a time, but resigned some years ago. He took an active interest in public matters, was a member of the Guelph Council for several years, Mayor for two years, and a member of the Public School Board for some time.

Book Reviews.

Clinical Observations on Two Thousand Obstetric Cases. By G. PORTER MATHEW, M.D. (Cantab.), etc., Later Scholar of Trinity Hall, Cambridge, and University Scholar, St. Mary's Hospital. Price two shillings. London: Simpkin, Marshall, Hamilton, Kent & Co., Limited: Whitehead, Morris & Co., Limited.

This unpretentious little book is, from a practical and clinical point of view, one of the most interesting contributions to obstetrical literature that I have seen. Dr. Mathew must have expended much patient labor on his analysis, although he does not claim that it is quite complete. His tables giving statistics are well arranged and very interesting. The best feature in the report is his description of different methods of practice under varied circumstances. I think I have seen nothing so good in so few words, although I don't happen to agree with the author in all respects.

After a few remarks on the diagnosis of the onset of labor he comments on the mechanism of labor. He correctly states, as was first clearly demonstrated (I think) by Berry Hart, that the usual statement, that in occipito-anterior cases the head is born by a movement of extension, ought to be qualified, as he has found "by examination per rectum that the chin does not leave the sternum until the major diameter of the head passes the vulval outlet." In occipito-posterior cases he rotates to the front, and claims he is always successful, the secret being that he rotates early. From the author's point of view many others (including myself) have been very unsuccessful in this respect.

In a large proportion of breech cases he performed external cephalic version before or early in labor. He strongly favors the use of axis-traction forceps in properly selected cases, and does not agree with Prof. Jabb Sinclair, the President of the Section in Obstetrics at the Montreal meeting, that such procedure in fairly skilled hands is frequently followed by bad results. He agrees with Milne-Murray that in flat pelvis version has no advantage over axis-traction forceps properly applied. His remarks on the causes and treatment of puerperal septicemia are exceedingly apt. He describes two forms: 1. Sæpemia, or saprophytic toxemia; 2. Septic toxemia. The chief virtue of such classification is its simplicity, while it tends to prevent confusion about sæpemia. His rules as to treatment are to my mind the best I have seen in print. The only complaint I have to make is that I think Dr. Mathew should have written a bigger book.

Diseases of Women. A Clinical Guide to Their Diagnosis and Treatment. By GEORGE ERNEST HERMAN, M.B.Lond., F.R.C.P., Obstetric Physician to, and Lecturer on Midwifery at the London Hospital, Examiner in Midwifery to the Universities of London and Oxford, Late President of the Obstetrical Societies of London, and of the Hunterian Society, etc. With 252 illustrations. Cassell & Co., London, Paris and Melbourne, 1898. Canadian Agents—A. P. Watts & Co., 10 College Street, Toronto.

In speaking of the general plan of this work, we feel that we cannot do better than produce the author's own words: "In most works on the diseases of women the subject-matter is arranged anatomically, according to the organ affected. But patients do not come labelled, 'Disease of Uterus,' 'Disease of Ovary,' etc. They come complaining of symptoms; and the discovery of which organ is in fault is often the greater part of the diagnostic problem. I have thought it more useful to the student and practitioner to arrange the maladies according to their leading symptom—that is, the one usually first mentioned by the patient. Such a division is not pathological or logical. It involves a little repetition; and in some instances it is difficult to say where the disease should rightly be placed, for the same disease will make one patient complain of one symptom, another of a different one, but I hope the clinical utility of this arrangement may compensate for these defects."

From Dr. Herman's experience and reputation as a clinical teacher, one would expect that in following such a programme he would produce a very valuable text-book. As a matter of fact, he has done so. The work is likely to be highly prized by both students and practitioners.

An American Text-Book of Genito-Urinary and Skin Diseases. Edited by L. BOLTON BANGS, M.D., Late Professor of Genito-Urinary and Venereal Diseases, New York Post-Graduate Medical School and Hospital; and WILLIAM A. HARDAWAY, M.D., Professor of Diseases of the Skin, Missouri Medical College. Octavo volume of over 1,200 pages, with 300 illustrations in the text, and 20 full-page colored plates. Price: Cloth, \$7 net; sheep or half-morocco, \$8 net. Philadelphia: W. B. Saunders; Canadian agents, J. A. Carveth & Co., 413 Parliament Street, Toronto.

The volume is one of the American Text-Book series published by W. B. Saunders that has been of such practical value. The one under review in no way lessens the high standard of the ones previously issued. Mr. Saunders has always secured the best men in the several specialties to edit these volumes

and in Dr. Bangs and Dr. Hardaway the standard has been well maintained.

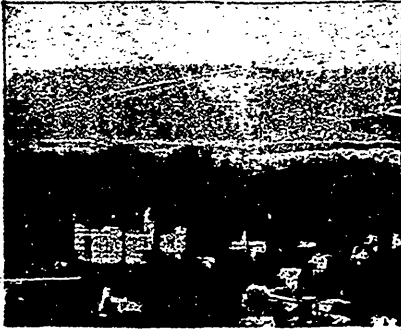
It is impossible to give an exhaustive review of a volume of the size of these, but the work as a whole is thoroughly practical, beginning with a chapter on urine analysis. We note an omission of any reference to bodies which strongly resemble casts, cylindroids, but are not casts. A description of these may prevent a false diagnosis of nephritis with all the accompanying worry. The description of connecting hypospadias and epispadias, two comparatively common conditions often neglected, is very lucid and well worth careful attention. We do not see why the clamp still figures in circumcision. It is an obsolete instrument, and by no means necessary. The operation can be more quickly and neatly done without any such encumbrance. The description of the use of cocaine in circumcision is, in our opinion, very faulty, although the common one. The injection as described is made "in the median line over the corona." This will produce an artificial edema through which the incision must be made and subsequent suture introduced. If the injection is made in the method described, but at the base of the penis, none of this edema is produced, and the incision etc., is made through normal tissue, which will unite by first intention. The strength of the solution is recommended as 4 per cent., while equally good results can be obtained by using 10 per cent., with no risk of cocaine poisoning. The diseases of the seminal vesicles, a subject generally neglected, or whenever referred to confounded with diseases of the prostate, is ably handled by Dr. Eugene Fuller, who has given much attention to the subject. To Dr. Fuller the profession owe a considerable debt for the able manner in which he has described the many phases that this diseased condition produces. Gonorrhoea is by no means the only cause for seminal vesiculitis, and Dr. Fuller fully points out the order and causes. The operation of castration is much facilitated by making one incision at the apex of the scrotum after both testicles have been well drawn down; through the opening both testicles can be removed and the drainage is in the most favorable situation.

The second part of this work, which deals entirely with the diseases of the skin, is well illustrated and the text is very complete. We think that the colored illustrations are too highly colored, and in this matter again it is the common fault. What is wanted in the way of illustrations is to secure fewer illustrations, but have those few done with the thoroughness and accuracy in detail of the German work. The typography, paper and presswork are all that could be desired, and reflect the greatest credit on the publisher.

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465 and 467 West Broadway, NEW YORK.

A Treatise on the Science and Practice of Midwifery. By W. S. PLAYFAIR, M.D., LL.D., F.R.C.P., Emeritus Professor of Obstetric Medicine, King's College; Consulting Physician for the Diseases of Women and Children to King's College Hospital; Late President of the Obstetrical Society of London, etc. Seventh Edition from the Ninth English Edition. With seven plates and 207 illustrations. Lea Brothers & Co., Philadelphia and New York, 1898. A. P. Watts & Co., 10 College Street, Toronto.

There is probably no text-book on Midwifery that is so well and favorably known in Canada as that of Playfair. The first edition, published in 1876, pleased everybody who read it. It soon became the popular book on Obstetrics in England, Canada and the United States. Nine English editions in twenty-two years tells briefly how the work captured the John Bull doctor. We are not prepared to say that this edition is perfect, or relatively quite as good as that of twenty or twenty-two years ago when we compare the first, second and third editions with their respective contemporaries; but we do assert with confidence that it is a good book for both student and practitioner. Playfair's style of writing is charming—simple, plain, and attractive; his judgment is good; his ideas are eminently practical; his opinions on any vexed question are clear and well expressed. The changes which are found in this edition show very clearly that there has been an absolute revision, and this revision has made the book more valuable in all respects than the books which were issued some years ago.

A Treatise on "Unripe" Cataract. By WILLIAM K. MCKEOWN, M.D., M.Ch., Surgeon to the Ulster Eye, Ear and Throat Hospital, Belfast; member of the Senate of the Royal University of Ireland; Lecturer, etc., etc., Queen's College, Belfast. Illustrated with nine plates and sixty original drawings. 202 pages, 8vo. Price, 12s. 6d. net. London: H. K. Lewis, 136 Gower Street, W.C.

This monograph of Dr. McKeown is marked by great candor and clearness of statement and detail. It is easily to be seen that this treatise is the result of dissatisfaction with the present condition of our knowledge regarding unripe cataract and the treatment thereof. Then comes his endeavors to put our procedure on a surer and more scientific footing. In all this time of fourteen years or more he finally gives us this monograph. Thus we are made aware that it is the outcome of mature deliberation and in nowise hastened by a fear of not being first in the field. The full explanation regarding all



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forms of cataract is excellent, and the change in nomenclature quite justifiable.

There is another great merit in this work, which is that the mind of the author has been quite openly judicial throughout, and thus he has avoided many pitfalls of previous writers. His operation, which especially applies to the immature cataract, is to insert a hollow needle inside the capsule of the lens and inject a weak saline solution. Then the capsule is ruptured. As much of the lens as will easily come out is first removed as in the mature cataract by the ordinary way of pressure outside the cornea, and the remainder by irrigation. The apparatus used is minutely described with many illustrations. It may also be mentioned that the illustrations throughout are numerous and good.

The author prefers as a rule the extraction with iridectomy as it gives more surely good average results with less fear of after complications.

The whole book fairly consolidates our previous knowledge. That which is original is put forward in a way which shows so plainly the singlemindedness and knowledge of his subject of the writer that we feel we most undoubtedly have in this work a valuable and trustworthy contribution to this most important branch of ocular surgery.

Practical Handbook of the Muscular Anomalies of the Eye.

By HOWARD F. HANSEL, M.D., and WENDELL REBER, M.D.
Philadelphia: P. Blakiston's Sons & Co., 1899.

This is one of the first text-books in handy form which has been compiled to deal exclusively with muscular anomalies. It has the advantage of conciseness, clearness and brevity. The presswork has been well done and the illustrations are excellent.

BOOKS RECEIVED.

Diseases of Children. Freyberger's Pocket Formulary, 1898.
London: The Rebman Publishing Co., 129 Shaftesbury Ave., W.C.

The Practice of Obstetrics: By American Authors. Edited by CHARLES JEWETT, M.D., Professor of Obstetrics in Long Island College Hospital, Brooklyn, N.Y. In one handsome octavo volume of 763 pages, with 441 engravings in colors and black, and 22 full-page colored plates. Cloth, net, \$5; leather, net, \$6. Lea Brothers & Co., Publishers, Philadelphia and New York.