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Original Communications.

KOCH'S TREATMENT OF TUBERCULOSIS.

BY PROF. R. RAMSAY WRIGHT.

Communicated from Berlin to the University of Toronto.

[FIRST COMMUNICATION.]

Since my last letter, the only new contributions of any importance to the Koch literature are contained in the *Deutsche Medicinische Wochenschrift*, published to-day. I give you the following sketch of the contents as far as they differ from my previous summary, and include a chart, such as is being used to record cases.

Prof. Frankel, of the City Hospital, *Am Urban*, whose selected cases are chiefly incipient pulmonary tuberculosis, lays great stress upon numerical examination of the bacilli in controlling the progress of the cases. [He uses Gabbett's method, but considers that the concentrating method of Biedert is the only method that can be depended upon to show the absence of bacilli.]

He urges gradual increase of dose, and cites a case where, there having been no reaction to 1 mg. or 3 mg., a dose of 5 mg. produced alarming dyspnoea.\* He observes that where the pulse in the reaction is from 80 to 100, the patient generally stands increased doses well; but if it has risen to 120, great care is required. Similarly, if the respiration reached 40, it may

be desirable rather to reduce the dose. He proposes to stop with his phthisical patients when he has reached 100 mg. Of thirty-one cases, nine showed the typical reaction, seventeen merely indicated it, while it was absent in five. He considers this due to the idiosyncrasy already known in other toxic agents; it is not due to the absence of the disease. Like other observers, he has occasionally observed albuminuria and icterus: at first the sputa is considerably increased in amount, and the bacilli no longer singly, but in heaps of some ten to twenty. While he does not think that the beaded forms, described by Fraentzel, and of which I spoke in my last letter, are due to the injection, [I have just seen a beautiful preparation in Professor Ewald's clinic of these forms from a case *before* injection], he is of opinion that the bacilli do not stain so intensely as before. The bacilli are also increased in other excretions. An interesting case of otitis media is cited, where the pus contained very few bacilli; it increased in amount and in the number of bacilli enormously under the treatment, but eventually they disappeared, and a perforation in the tympanic membrane now shows healing granulations. From a report of Lenhartz, of Leipzig, I extract only two cases which seem to be of special value: one was a case in which the diagnosis was doubtful between lupus hypertrophicus and tertiary syphilis. The patient, whose forehead was much infiltrated, is now able to wrinkle it, which was formerly impossible. A case of Addison's disease gave a violent re-

\*Another case is cited of a young man with the remains of pleurisy, but no sputum, where there was no reaction till 100 mg. was given, when suddenly a violent reaction, accompanied by expectoration containing numerous bacilli, occurred.

action in fifteen hours. There was no pulmonary disease, and the prognosis was bad; after the eighth injection of 5 mg. the patient did not react, and the outlook is now much more favorable. It was probably one of those caseo-fibrous degenerations of the supra-renals of tubercular origin. Lenhartz considers the new medium to be not only diagnostic but curative.

Professor Czerny records, from Heidelberg, some favorably progressing (although, so far, not healed) cases from his surgical clinic. He lays special stress on the diagnostic value in surgical cases, especially in spondylitis, where the local reaction indicates the spot for surgical interference. He concludes by remarking that if the lymph only turns out to be curative for incipient pulmonary tuberculosis and lupus, it will, nevertheless, be one of the most important therapeutical discoveries. He urges that its nature should be disclosed as soon as possible, not only on account of the discomfort which every physician must experience in using a secret remedy, but because the methods which led to its discovery, when made known, may lead all the sooner to the discovery of specifics for the treatment of the other infectious diseases.

Professor Stiller, of Buda-Pesth, on the other hand, approves of Koch keeping his secret with regard to the lymph, but thinks the animal experiments ought to be described as soon as possible. He finds the local reaction in the lungs indicated by increased rates and the breaking up of the tubercular tissue in the altered character and constituents of the sputum. He reports the unexpected result of a violent general reaction in a case of chalazion (a swelling of a meibomian duct, recently shown by Tangl to be of bacillar origin).

Professor Ebstein, of Gottingen, uses a Parvaz syringe, and finds no local difficulty when the injection is made below the scapulæ. None of his cases were in the earliest stage; he excluded cases of intestinal and peritoneal tuberculosis and pregnant tuberculous patients, fearing perforation in the former and the results of injection on the foetus in the latter. While he does not speak of any complete cures, yet the general impression he has formed is favorable; and he makes no doubt that the lymph is able to seek out and to kill the tuberculous tissue wherever it is situated in the body.

Professor Lindner, of the Augusta Hospital, whose surgical clinic I visited yesterday, speaks very favorably as to the effect of the remedy in surgical cases. Various fistula, *e.g.*, which had proved refractory, have closed under the treatment. He observes, however, that it is necessary to speak with caution about tubercular ulcers, on account of their well-known tendency to heal up and break out again.

I have nothing further to report as to the more scientific aspect of the case, but hope to have some further news for next mail. Although I hear some unfavorable comments on the remedy, these have not as yet found their way into the Berlin medical press; I daresay you will have access to them elsewhere. A second anti-Koch pamphlet, which I have got hold of, is from a Wiesbaden physician, who relegates the pathology of lupus and pulmonary tuberculosis to the cervical cord; so his polemic will not interest you.

[SECOND COMMUNICATION.]

You will be interested to have in continuation of my last letter a summary of the opinions expressed by Prof. Leyden on the results obtained by him in the Charité Hospital with Koch's lymph. Leyden has always appeared a little less sanguine than some of his colleagues, and his lecture reported in yesterday's *Klinische Wochenschrift* is therefore all the more interesting. He cautiously begins by refusing to pronounce, after only four weeks' trial, a definite opinion; but says it is the physician's duty to act upon the Hippocratic motto, "Neither to adopt nor to reject a new remedy without careful investigation."

In speaking of the general reaction, he is inclined to think that some non-tuberculous cases react, and that it is extremely difficult to allow properly for the psychological influence of the injection. The expectant condition into which the patient is thrown must have a varying influence, according to temperament and health, on his subjective sensations. On the other hand, some cases not supposed to be tuberculous and treated simply as control-experiments disclosed, after injection, symptoms of latent tuberculosis.

Leyden lays especial stress on the condition of the pulse during the reaction; it increases very much in frequency and becomes much

weaker, but the curve of frequency is by no means parallel to the curve of temperature. He considers that the cases of sudden death recorded may be attributed to heart-failure. The respiration is also generally more frequent, and may be dyspnoëic; gastric symptoms which have been observed may be possibly due to local tubercular foci. There is increased metabolism or rather katabolism, as indicated by the urine and by loss of weight (one patient lost two pounds in forty-eight hours); and if the favorable effect on the local pathological change were not so great as to lead to a rapid recovery from this symptom, he considers it would hardly be justifiable to subject the patient to the trying reaction.

Another discouraging feature as to the treatment is our ignorance of what happens to the bacilli when the surgical removal of the necrosed tissue in which they are contained is impossible. Again, doubt still exists as to whether a violent reaction always indicates extensive tuberculous process, and whether a diminished reaction is always to be interpreted favorably.

As far as the therapeutic value of the treatment is concerned, he thinks that the prospects are excellent for lupus and tubercular laryngitis, but it is too soon to pronounce any opinion with regard to pulmonary tuberculosis. Even with the hitherto current methods of treatment of early cases, resulting in apparent cure, the physician would hesitate to pronounce a case secure against relapse. There has, so far, been no time to compare the results attainable in such cases by the use of Koch's lymph with those of other methods of treatment, which, like those of Dettweiler, of Falkenstein (who has cured one-third of the cases arriving sufficiently soon), are often very favorable.

Professor Leyden concludes by hoping that Koch has discovered a specific which will greatly increase the number of cures, but he warns against neglecting the other remedial agents which the progress of medical science has put in the hands of the physician.

In the same number are also reports by Burkart, of Bonn, and Hofmeier, of Berlin. Two cases are cited by the former which corroborate the doubt expressed by Leyden as to the intensity of the reaction being a trustworthy indication of the extent of the tubercular process. One

patient with abundant sputum, infiltration of both apices, but no fever, did not react till a dose of 30 mg. was reached, when there was a violent reaction; while a second case, with mitral insufficiency following rheumatic arthritis, slight cough with scanty sputum, in which no bacilli were at any time detected (although the scar of an excised gland in the neck indicated strumous diathesis), reacted violently to 1 mg., and indeed to each following dose of 1 mg. This patient lost four pounds during the treatment, but her cough improved.

Hofmeier considers it quite judicious to treat pregnant patients with the lymph before the end of the sixth month. In two such cases the results were favorable. The interesting fact is recorded that the foetal pulse was accelerated on the day following the reaction.

With the approach of the Christmas holidays, the stream of strangers to Berlin has considerably diminished; but reports as to the use of the lymph, from the most distinguished authorities, continue to appear. I hope in another letter to be able to write something as to the progress of the cases in the pavilions in the City Moabit Hospital, which have been placed at Koch's disposal.

### KOCH'S TREATMENT OF TUBERCULOSIS.

BY JAMES D. THORBURN, M.B., L.R.C.P.,  
L.R.C.S. LOND.

Late Resident Medical Officer of the Manchester Hospital for Consumption and Diseases of the Throat.

Communicated from Berlin to the Medical Society of the University of Toronto.

*Reaction following administration of Koch's fluid may, for convenience, be divided into*

- (a) *General*, as shown by rise of temperature; increased frequency of respiratory action; increase in pulse rate and character; rigors, chills; nausea, vomiting; headache, delirium; general prostration.
- (b) *Local*, as shown by a swelling and redness of diseased parts; pain, and local heat; rapid formation and casting off of necrotic masses.

These reactions, one and all, occur in every case, in a more or less marked degree, in which there is either a latent or active tubercular pro-

cess, and are always more marked in women and children, especially when suffering in a marked degree from tuberculosis of the lungs.

All induced changes disappear in from one to two weeks.

#### ACTION OF "KOCH'S FLUID,"

"Antituberclin," as it is now called, upon

*Mouth and soft palate and uvula:* Sometimes produces a herpes.

*Stomach:* Deranges digestion; causes nausea and vomiting; loss of appetite; severe pain.

*Intestines:* Diarrhoea, followed by constipation; diarrhoea is probably owing to the large sloughs which are cast off ulcerating surfaces. Pains—(a) Neuralgic in type, where ulcerations already exist. (b) Dull aching, where disease is latent; tenderness on pressure not marked; tympanites not noticed as yet; jaundice in some cases.

*Spleen:* General enlargement, more especially in transverse diameter; no tenderness; changes in spleen seem to be influenced by condition of lung.

*Liver:* Slightly enlarged, and correspondingly tender upon pressure; surface smooth.

*Kidney:* Transient albuminuria, more especially in pregnant women; an increase in amount of albumen, where there has already been some, before injection.

*Heart:* DECIDED action upon the force and frequency of the beats causes palpitation; pulse dicrotic, soft. Should be used with caution in all cases complicated with heart disease, although to date no accidents have followed the administration in these cases, eight in number; a sense of anxiety; deaths in early cases probably owing to action of antituberclin on heart; the action on the heart does not correspond to the height of the temperature.

*Eyes:* No reaction except in a case of tubercle conjunctivitis, when the reaction was marked.

*Nose, Throat.* { *Pharynx.* } Changes here are  
                          { *Larynx.* } remarkable, and follow, as a rule, within twenty-four hours of injection, preceded or not by a more or less intense general reaction.

**LOCAL CHANGES.**—The diseased tissue becomes swollen and red; in a short time this is covered with a gray-white exudation, appearing first in the centre of diseased mass and then rapidly extending to periphery; next it takes on

an ulcerative process, beginning and spreading in the track of the discoloration; ulcer becomes flat and funnel-shaped; afterwards the diseased parts shrivel up; the discharge of mucus from mouth and nose is greatly increased during this reaction. Virchow says, "The process of formation and destruction of the tubercle is so hastened by the treatment that the subject gets rid of all before fresh ones can form." Frequently an eruption appears upon the soft palate, uvula, and tonsils, this may be either herpetic or tubercular in origin; in other cases where the reaction is not so violent we only find a general catarrh of these parts, voice being hoarse, mucous membrane red and inflamed, secretion increased; where process is very severe, patients frequently suffer from great "dysphagia" or a dull pain referred to seat of ulceration.

*Lungs:* Feeling of oppression, and in some cases actual pain. The changes in the lungs after injection are astounding; lung tissue, after very careful examination pronounced healthy before the injection, within from six to ten hours following it will present some of the following changes:

(a) Pneumonic patches of various sizes, from quite a small island to an area larger than a hand.

These pneumonic patches, probably tubercular, exhibit the following peculiar clinical picture: (a) No chill or rigor preceding the local changes; (b) No pain before or after consolidation except in a few cases; and in these the pain was not severe, and not influenced by breathing; (c) Is not accompanied by dyspnoea.

The area of dulness increasing and decreasing one or twice in twenty-four hours. Upon auscultation, one hears a number of large moist rales, simulating more the rales heard in cedema of the lungs; although not exactly alike, still could be mistaken for them. I have not heard true crepitation in any case. These rales are influenced to a certain extent by coughing, or upon patient breathing deeply. They do not change in character from beginning to end of induced change. Bronchial breathing is frequently absent, although dulness exists, as well as other signs of consolidation. Normal respiratory sounds in some cases are marked by numerous large rales, and even gurgles; these change from time to time during the examination

of patient. Cavities fill and empty with remarkable rapidity.

Local reaction in lungs may be influenced by

- (a) Fibroid diseases of lung.
- (b) Encapsuled tubercle.
- (c) Certain idiosyncrasies.

*Pleuræ.* Two cases under observation have developed pleurisy after injection; soft pleuritic crepitation were heard in numbers, but no effusion followed; again in these cases pain was wanting. The induced changes in the lungs and pleuræ disappear in from one to two weeks, leaving no trace behind; while the pre-existing active lung changes are found to be improved to a greater or less extent.

While the induced changes are present the injections following, up to a certain time, increase the local reaction. In from one to two weeks all the induced changes disappear, and the portions of lung known to be diseased before the injection seem to be greatly improved, as shown by the physical signs.

EXCEPTION.—When induced changes have gone on to cavity formation, after it is empty it seems to shrink up and become obliterated.

*Cough:* At first increased and then lessened, finally ceasing in favorable cases.

*Sputum:* At first increased in amount, afterwards disappearing; in the beginning more mucopurulent, then frothy, and consisting chiefly of mucus. After standing twenty-four hours, the clear underlayer contains a large quantity of carbonate.

*Bacilli:* At first greatly increased in numbers and were thought, until yesterday, to show certain changes in form, e.g.; (a) smaller in size; (b) granular appearance; (c) curved.

These changes, however, have been discovered in bacilli obtained from patients who were not treated by Koch's method.

After a while they decrease in numbers, and in some cases cannot be found at all.

*Urine:* The ordinary fever urine, *vide* kidneys.

*Blood:* No changes so far discovered in shape of discs; but a very rapid "leucocytosis" is produced, in which the leucocytes increase greatly in number, while the lymphocytes remain about the same as in normal blood. Further investigation required.

*Nervous System:* Intense headache (frontal), and pains, neuralgic, at back of eyes; a feeling

in the extremities as if they were paralyzed. Small doses promote sleep in a few, while larger, or in cases where reaction is great, prevent sleep; herpetic eruption on face; tendoreflexes increased; vertigo; noises in ears and head; general nervous prostration: (a) delirium or (b) partial delirium; (c) low muttering; in character, not active.

*Temperature:* Is of a hectic type, coming on from three to thirty-six hours after injection, gradual rise terminating by lysis; sometimes normal the following day, and then re-occurring on the second. Sometimes lasting forty-eight hours. Difference between morning and evening from one to four degrees.

The following circumstances seem to influence the rise and fall: (a) Time of receiving injection, which should be done about the time of beginning normal rise, e.g., 10 a.m.; (b) patients free of pre-existing fever; induced temperature does not rise to any great height; (c) greater if there be much local reaction; (d) according to the nervous state of patient; (e) age; greater in extremes of life. Not influenced by the dose (amount of) or gravity of disease.

*Respiration:* In many cases, *urgent dyspnœa*; always some increase in number. This increase in number always precedes rise of temperature. Although dyspnœa may be very great, patients lie on their backs; do not sit up; breathing fairly deep; inspiration and expiration occupying about same time. Cause of dyspnœa is as yet unknown, and does not seem to be influenced by temperature or severity of disease.

*Skin:* Three rashes; (a) Like measles, only deeper in color; not itchy; (b) Like scarlet fever; not itchy; (c) A simple erythema, at times accompanied with a pricking sensation. (a and b) Spread over the whole body; (c) More localized around affected joints, or over affected lungs, etc. (a, b and c) Last a few days.

In one case a simple desquamation, not preceded by a rash.

In a *post-mortem* examination yesterday, I noticed the following changes in the lungs of a woman who had received injections, but whose condition before treatment was so alarming that no hope of recovery was entertained by Prof. Krause, under whose care she was. Numerous cavities were found in both lungs, these cavities being filled with pus, and broken

down tubercles and lung tissue; the walls of the cavities were intensely congested and œdematous, glazed on the surface; the tubes filled with a muco-purulent secretion. These changes have been found in all cases, where examination has been made, in patients treated by antituberculin.

*Affected Glands:* After injection become swollen, semi elastic, and in some cases painful.

*Diseased Joints:* Become swollen, red, hot, painful; at first movement is restricted, later freer; effusion in some cases seems to be partially absorbed, a cheesy mass resulting; in others large sloughs are cast off in the joints, and these are removed by subsequent operation.

*Peritonitis:* I have not seen any cases as yet.

*Night Sweats:* Do not seem to influence them to any great extent. In 50 per cent. they cease; so I am told, but have not seen it.

*Body Weight:* Loss of weight up to the healing injection, which is said to be 0.1; then a rapid increase.

The loss in weight is greater in cases where the remedy has been pushed too quickly; a few patients gain in weight from the beginning.

*Case 1:* Jacob Spanier, woodcarver, æt. 26. Admitted into the Charité Hospital, Nov. 12th, 1890.

*Family History:* No family history of phthisis; father alive and healthy; mother died of fever, following confinement; two young brothers dead, cause unknown; one brother, æt. 29, living and enjoys good health.

*Previous Personal History:* Suffered from dyspepsia since a youth; enteric fever, 1880-1; malaria, 1883; past three years has had attacks of diarrhoea with intervening constipation; while in the army (1887) contracted bronchitis, and since then has had cough, with expectoration and pains in the left chest. In January, 1888, had a severe attack of hæmoptysis, lasting, off and on, for six weeks; this was followed by a feeling of oppression on chest; night sweats and dyspnœa increased upon exertion. This condition lasted until date of dismissal.

1889. Cough less, sputum diminished in quantity.

1890. Cough, sputum, and pains in chest greatly increased, and now patient cannot lie on left side.

*Former Treatment:* 1887. For a year underwent the milk treatment without benefit.

1st Oct., 1890. Was treated as an in-patient in the Urban Hospital for consumption. Was sent home from there to die.

Nov., 1890. Entered Moabil Hospital, where he was only kept a short time; finding himself worse, he left.

Entered the Charité, Nov. 12th, 1890. Status on that date: Middle-sized man; anæmic; bones and muscles well developed; skin dry and harsh, but elastic; pains in sup. scap.; inf. and sup. clavic fossæ, left side; pulse soft and irregular; spleen normal; appetite good; thirst increased; sleeps on right side.

*Lungs:* Right side—Vesicular breathing; Left side—Apex antrly. contracted one inch; impaired resonance to the third rib; vesicular bronchial breathing over this area; posteriorly, left side, dulness to middle of scap. region; consolidation of lung in this region; cavity in left inf. clavic space.

*Heart:* Heart pulsations diffused.

*Vital Cap.* 2300 cc.

*Bacilli.* In very large numbers.

*Before Injection:* Patient was observed for eight days before injections, and during that time his temperature rose only once to 38.2; usually had a low night temperature; respirations were from 20 to 30; night sweats; weight 56 lbs.

Nov. 20th, 10 a.m. First 0.002 injection; temperature eight hours after, 38.3; normal next morning.

Nov. 22nd, 10 a.m. Second 0.005 injection; temperature eight hours after, 38.4; sub-normal next morning.

Nov. 23rd, 10 a.m., 0.005; temperature eight hours after, 38.8; lung changes; *cavity full*; sputum, *increased* from 40 cc. to 60 cc.; liver and *spleen normal*.

*Larynx:* Which before injection presented no abnormal signs, left vocal cord not so wide as right, had now taken on the following condition: On the evening of the second injection there was a distinct swelling in the inter-aryt. space; on inner side of left aryt. body, a greyish-white exudation; from the right vocal process a small nodule protrudes.

*Vital Cap.:* On the 27th, after third injection 2400 cc.; no marked reaction of lung up to 27th.

Dec. 1st. After five injections a general catarrh of the larynx; bronchial breathing over left lung was very evident, accompanied by a very few rales.

Right apex: occasional rales; harsh; bronchial vesic. breathing. We see that a reaction had set in in the right lung, which, before injection was considered to be healthy.

Dec. 2nd. Injection 0.020; no reaction of temperature.

*Urine*: Sp. gr. 1017; traces of albumen, and upon standing some hours gave a fever deposit; since that time there has been no trace of albumen.

Dec. 10. Bacilli are greatly diminished in number and appear under the microscope to be curved, smaller than usual, and slightly granular.

*Vital Cap.*: 2650; no night sweats; feels better; all pain is gone, and patient can now sleep on either side; cough less; *sputum* increased in quantity, but is now like frothy water; after injections has always complained of severe frontal headache, worse at night; pain in the limbs and throat.

*Larynx*: Is now normal in appearance; the exudation and nodule have disappeared.

Dec. 13th. Last two days feels very weak; appetite gone; temperature higher; great oppression over chest; says he is becoming weaker every day.

*Present Condition*: Dec. 13th. Pale, anæmic man; lying on back; fairly well-developed chest and muscles; skin dry and semi-elastic over body, while on the face it is oily; myotatic irritability not very marked; fingers slightly clubbed, blue at tips; no sinking-in of either sup. or inf. clavic regions; heart pulsations to be seen in third, fourth, and fifth interspaces.

*Lungs*: Right side antrly.: expansion fair; no shrinking in of soft parts; vocal fremitus slightly increased; percussion; impaired respiration in sup. and inf. clavic fossæ as far as the second rib.

Respiration: bronchial vesicular, as far as second interspace.

Auscultation: a few fine rales in inf. clavic region.

Left side antrly.: Expansion poor; flattening in inf. and sup. clavic fossæ; vocal fremitus normal; percussion; dulness in sup. clavic and inf. clavic spaces to the third rib, except at one spot in the first interspace; a cracked-pot tone

is present; from the fifth rib to the base the note is impaired, and at points almost dull.

Auscultation: Sup. clavic bronchial breathing; a few large rales, numerous finer ones. Inf. clavic cavernous breathing, whispering pectqy. gurgles, and behind third rib fine crepitus. In fifth interspace, a very few fine crepitus (distant), breath sounds very faint, and slightly blowing in character.

Posteriorly, right side: Impaired respiration to spine of scap; breathing bronchial vesic.; no adventitious sounds except in extreme base; a number of small bubbles with inspiration and expiration.

Posteriorly, left side; Left apex one inch lower than right. Percussion: dulness extending to angle of scap.; a few fine scattered creps. over this area, and at a spot (sup. spin. foss.) the ordinary signs of a secreting cavity. Base: a few fine bubbles.

Dec. 13th. Sputum 40 cc.; no bacilli were found.

Dec. 15th. Sputum 30 cc.; bacilli were found in large numbers; injection of 0.070; patient complains of very dry cough.

Dec. 16th. Temperature normal; cough better; sputum 30 cc.; feels much better.

Dec. 17th. Injection 0.080; temperature 38.4; *vital cap.* 2300; sputum 66 cc.; has a few night sweats.

### THREE CASES OF TUBERCULAR PERITONITIS OPERATED ON BY ABDOMINAL SECTION DURING THE YEAR.\*

BY J. F. W. ROSS, M.D., C.M., L.R.C.P. LOND.,

Lecturer in Gynecology, Woman's Medical School;  
Surgeon to the Toronto General Hospital, and  
the Hospital of St. John the Divine.

CASE I. was a woman, æt. 36. III. para. Unwell nine months before seen; previously regular. Had cough and shortness of breath. No lung consolidation could be detected, though many moist rales to be heard. Abdomen much enlarged, with a muffled resonance obtained irregularly over the front of the abdomen, and an indistinct "far away" fluctuation. Diagnosis of thickened peritoneum was made—perhaps malignant, perhaps tubercular. Temperature ranged 99° to 100°. Pulse from 80 to 90.

\*Abstract of a paper read before the Toronto Medical Society. Published in the *Buffalo Medical and Surgical Journal*.



Operation: The peritoneum was found about  $\frac{3}{4}$  in. thick and studded with tubercular nodules. The hard mass felt before operation proved to be omentum, much thickened, and adherent in a conglomerate mass to abdominal parietes above and to the right of the navel. Bowels were glued together by adhesions, and pressed back into either loin by the fluid found free in the cavity of the peritoneum. Ovaries, tubes, and uterus normal. Abdomen was washed out and glass drainage tube inserted. Patient did well; wound healed; stitches removed on the seventh day. Rubber drainage tube used after removal of glass one. Cough then became more troublesome, and in a few weeks tubular breathing and other signs of lung solidification were noticed. Sputum changed in character; became like sputum of phthisis. Temperature remained elevated. An offensive diarrhoea came on and continued at irregular intervals until she went home. Heard that she died from the lung trouble three months later.

CASE 2. Young girl  $\text{aet. } 16$ , only unwell three times in her life; now suffers amenorrhoea. Looked thin and emaciated and very ill, just like a patient in the third week of typhoid fever. Temperature  $101$ ; pulse  $110$ . About four months before she noticed her abdomen enlarging; then seemed to diminish by treatment, and then increased again. Uterine fundus not to be felt; cervix very small; no ovaries to be felt; sound passed by very short distance; abdomen found very much enlarged; no definite tumor to be outlined, but here had again muffled irregular resonance and a "far away" wave of fluctuation. Father's sister died of tuberculosis. Bowels move two or three times daily; tongue is very much coated at its posterior part, and red at tip and edges. A positive diagnosis of tubercular peritonitis was made, being guided to this conclusion by the recent case (No. 1). On opening abdomen; found peritoneum much thickened, of an  $\text{aematous}$ , translucent appearance, and studded with tubercular nodules, looking like little teats. Large quantity of fluid free in the peritoneal cavity; intestines matted together and pressed back into each loin. Strange to say, no broad ligament could be found, and no fundus uteri, ovaries, or tubes. The pelvic peritoneum had no folds, but simply ended in a blind *cul-de-sac*. After treatment and

result of operation same as No. 1, except that patient left for home feeling well. Recent information shows probable tendency to reaccumulation of fluid, but no other symptoms. Patient remains hearty (Nov. 27, 1890).

CASE 3. Woman,  $\text{aet. } 32$ . III. para. Menorrhagia since last winter; no excessive pains; always able to go about; skin, coppery tinge; chief pain referred to neck of bladder; micturates very frequently; no chest symptoms; urine shows pus, mucus, few red blood corpuscles, squamous epithelium, and crystals of oxalate of lime. Has had fever and chills, with subsequent perspirations. On examination find two fluctuating tumors on each side of uterus, and diagnose double pyosalpinx.

At operation, peritoneum, both parietal and visceral, found studded with tubercles—not large, but very numerous; peritoneum not much thickened; no free fluid; intestines reddened and adherent to one another. On separating some coils, found double pyosalpinx. Drew out a coil of intestine to demonstrate the tubercle spots to the student present. After treatment and result of operation as in previous cases, except that the bladder symptoms continued, and the patient went home with a knowledge of the true nature of her puzzling case. No doubt there was tubercular ulceration of the bladder and tubercular deposits in the supra-renal capsules, causing the bronzing of the skin. Another case, strangely enough, was operated on but half an hour before No. 1, a case of sub-acute peritonitis, produced by a small suppurating ovarian tumor on one side, and suppurating h $\text{aematocoele}$  on the other. In this case the peritoneum presented all the appearance of that of tubercular peritonitis. In summarizing these cases, the facts may be noted as follows: All looked very ill, the temperature in each case was elevated; abdominal pains in two cases, pelvic pains in one; in two, had amenorrhoea; in one, menorrhagia; in one, want of development of internal genital organs; in one, disease of Fallopian tubes; and in one, no change in these organs; in two, a collection of fluid; in one, the dry adhesive form of the disease. Ages varied—16, 32, 36 years. Two were multiparous women; one, a single girl; in one, enlargement was noticed only two months; in one, three or four months; in the last case the disease had been in progress

about two years. The omentum was much thickened in one, but little thickened in one, and not thickened in one. Peritoneum was thickened in two cases and not thickened in one. As regards diagnosis: the fact must be emphasized that the main points were the irregular tympanitic sounds on percussion; the presence of free fluid in the abdomen, shown by the flattening of the front of the abdomen and bulging of the loins upon tension of the recti; the muffled sounds of resonance; the "far away" wave of fluctuation, giving one the idea of the presence of a thickened peritoneum between the fluid and the fingers; the high temperature, coated tongue, cachectic appearance. Of course, malignant disease of the peritoneum will produce just such symptoms. In cases where there is no collection of fluid and no thickening of the peritoneum, a diagnosis is not possible without an exploratory incision, as in Case 3.

As to treatment: Drainage was not at all necessary; a cure could be effected or life prolonged by removal of fluid, and that removal should be effected by exploratory incision, and not by dangerous trocar puncture—such incision clearing up the diagnosis, as well as relieving the patient. With the knife and the finger, the operator knows where he is going and what he finds. If pleuritic effusion, so often tubercular, can be cured by removal of the fluid, there is no reason why the same should not hold good in the abdomen.

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## Selections.

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### SEQUEL TO A CASE OF OVARIOTOMY.

BY WILLIAM TAYLOR, M.D., F.R.C.P.E.

#### PATHOLOGICAL REPORT.

BY WILLIAM RUSSELL, M.D., F.R.C.P.E.,

Pathologist to the Royal Infirmary, Edinburgh.

Ten years ago I was walking towards the west end of Queen Street in company with a medical friend. He was discoursing with all the fervor of an enthusiast on a recent series of successful ovariectomies performed by him. He informed me that in several of these cases he had made use of a double silk ligature, by means of which he strangulated the pedicle.

He then severed it, and, removing the ovary, allowed the ligature portion to drop back into its place in the abdomen. In my innocence I inquired what became of the ligature? His reply was—"God knows. It never gives me any trouble."

This answer startled me. It was not satisfactory to my old-fashioned mind. I was haunted with the idea of these ligatures remaining in the abdomen, where they might become centres of mischievous irritation, and I naturally desired to become possessed of the knowledge which the ovariectomist contemned. The career of the ligature, after its primary object was accomplished, although involved in obscurity, seemed a legitimate subject of inquiry, and I kept on searching for more light. In this quest the rays of reason alone were insufficient until blended with those of observation and pathology, and time was required to gather them into a focus. Meantime the ever-recurring question, What became of the ligature? presented itself in varying phases, of which the following may serve as examples:—

1st. Did the ligature drop away through an avenue of pus after its term of usefulness had expired, in the same way as the ligature used in the deligation of an artery finds its way to the surface?

2nd. If so, what became of the pus so imprisoned and the ligature so liberated in the abdomen?

3rd. Did the ligature remain *in situ*, entailing months or years of detriment undefined and undefinable, but such as must always attend the presence of a foreign body within the tissues of the body—the presence of matter in a wrong place?

4th. Did the ligature and its attendant products of pus and other disintegrated matter undergo solution, digestion, and absorption into the system?

5th. If so, the pabulum would seem to be most unsuitable; but even if unsuitable, what became of the effete residuum which is attendant upon all processes of digestion? Did it also enter the circulation in a state of decomposition but non-assimilation, and was it carried onwards mechanically by the blood-current until it became deposited in some nook or eddy of lung or liver or kidney, where it set up business on

its own account, and proceeded to disseminate and propagate amongst the surrounding tissues?

Whilst these problems were floating in my mind, I was consulted by a patient from England who had suffered for three years from menorrhagia. I treated her for two periods, but failed to stem the periodic flood. I consulted my friend the ovariologist. After reviewing the treatment and its results, he at once recommended deligation of both ovaries as the only treatment likely to succeed.

This was agreed to. The operation was performed. Both ovaries were healthy; both were removed, and the ligature pedicles were dropped back into the abdomen. The patient recovered from the operation. Nine years have since elapsed; no return of the menorrhagia has occurred, but she is still an invalid. She has never resumed work. Her intended marriage was broken off in consequence of the mutilation she had undergone, and thus possibly the real cure of her misery has been withheld. Meantime she remains ill, and but for the contingency of an opportune legacy she would be poor indeed. The question naturally arises, Have the embedded ligatures anything to do with this continued ill-health?

More recently (1883) a very instructive case came within my observation. A patient from abroad came under my care. She had a left ovarian tumor of considerable size. I consulted my friend, and he decided to remove it. This was accomplished at Christmas. The stump was carefully cauterized, and returned to the abdomen. He then examined the right ovary, and found it healthy. He was in an operating humor. He examined it a second time, and said that, in order to make sure that it should not be the site of future disease, he would remove it. He applied a double silk ligature, removed the ovary, and allowed the ligatured stump to drop back into the abdomen. The patient's recovery was tardy at first, owing to her intolerance of morphia, which was injected in routine fashion. This routine was so obviously injurious that I protested against it, and on its being discontinued she made a steady recovery.

For six months she made little effort. Thereafter she became more active, and took outdoor exercise. She complained of nothing

except occasional rheumatic pains, which were met by constitutional treatment.

Three years afterwards she suffered from a copious and offensive uterine discharge. This resisted all the ordinary treatment. All the parts within reach of observation were healthy. Ovarian disturbance could not account for it, for there were no ovaries. Still the discharge continued. Obviously the discharge proceeded from the site of the ligature, and found an exit through the still patent fragment of the Fallopian tube. Nothing was therefore done in the way of treatment beyond such an amount of warm douching as was required for cleanliness and comfort. The discharge continued steadily for months, varying in amount, but never absent; then it stopped for a few days; again it recommenced, and continued for varying periods; and so on for two years, when it finally ceased, and was followed by pain in the back. This interfered very much with active exertion, and gave rise to a constant feeling of weariness and lassitude. The uterine discharge never returned.

Shortly after Christmas, 1888, five years after the operation, she returned from a visit to the country complaining of numbness of the right foot and leg. On examination, I found the foot and leg swollen, the sensibility greatly diminished, and the surface temperature of the foot reduced three degrees below that of the corresponding foot. The œdema extended to the thigh; but the sensibility and temperature increased from the ankle upwards, and were normal at the groin.

The dorsum of the foot presented two blanched bloodless patches of irregular shape, and measuring respectively  $1\frac{3}{4}$  and  $2\frac{1}{2}$  inches in diameter. These were completely sensible to the touch, and suggested approaching gangrene. The appearance of whole limb indicated some very serious intra-pelvic obstruction to the circulation.

*Could this be at the site of the ligature? and could the patent Fallopian remnant which had afforded an outlet through the uterus have become occluded, leading to an accumulation within and giving rise to an abscess, the presence and pressure of which was thus retarding the circulation?*

These were the natural questions suggested to my mind. The great question, however, was

how to get the patient well again, and with this view I enjoined absolute rest in the recumbent position, and warmth. This was accomplished by having the limb enveloped in a great thickness of carded sheep's wool, with the addition of hot bottles; and by this means the foot and leg gradually recovered, until at the end of fourteen days they had regained their normal appearance, and thereafter the surface temperature of the foot rose to one degree higher than that of the corresponding foot.

The patient was able gradually to resume her ordinary duties, but complained of pain in the back, which was somewhat intermittent in character, but she never felt well. In the following July she went to the country, and there she complained of an obstinate diarrhoea. Her diet, which had been unrestricted, was gradually altered, until finally reduced to milk and lime-water. On this she seemed to thrive, but the pain in her back increased, and became continuous. It had also changed its position from the left to the right side, and extended round towards the front. On her return to town in September I examined her, and found a large tumor occupying the right side, and extending from the liver, with which it seemed continuous, down the right iliac space. The outer two-thirds were dull and palpable, the inner third resonant with the overlapping colon, and where this terminated a hard elbow-like projection could be felt. The manipulation of the tumor was unattended with pain.

The motions from the bowels were soft and clay-colored, the urine dark and scanty. Rest was tranquil, and the intellectual powers unimpaired. The breathing was interrupted by occasional sighs, and savored somewhat of pyæmia. The feet and ankles presented no appearance of œdema. The existence of very serious malignant disease was manifest; and Dr. Wyllie, who concurred in this view, kindly assisted me with the further treatment of the case. This consisted chiefly of palliatives, rest, and warmth, with the promotion of gentle action of the skin and bowels. Operative procedure was inadmissible. Ten days after her return to town the kidneys refused to act, and there was no urine passed during the remaining ten days of her life. On the fifteenth day the motions suddenly changed color to an

olive-black, and became very loose, copious, and frequent for thirty hours. Thereafter the hard knuckle at the edge of the liver could no longer be felt, and for a time she seemed to rally. Behind the uterus there was a hard mass, to which it was adherent; and Dr. Wyllie suggested that a gynæcologist should make an examination, in order to ascertain whether, in the event of the ureters being involved and blocked in this way, operative procedure could be entertained. Dr. Berry Hart kindly made the proposed examination, and found the broad ligament adherent on the right side, and the condition already described, but could offer no hope from an operation.

She gradually sank, and died on the morning of the twenty-second day. A *post-mortem* examination was conducted in due course by Dr. Russell, and I will leave him to describe what he found. I asked him to pay special attention to the site of the ligature, and he examined it with great care. He also examined the part where the hard, bony-like projection had been felt. It was the site of the gall-bladder.

#### PATHOLOGICAL REPORT.

Owing to the operation which had been performed, attention was first directed to the uterus and its appendages. The pedicle on the left side presented no signs of prolonged irritation, there being, in fact, a marked absence of thickening either in or around it. The right pedicle had, on the other hand, been the seat of much and prolonged irritation, the evidence of this being found in the presence of dense fibrous adhesions in its neighborhood, especially posteriorly, where the pedicle was incorporated with the parts in front of the sacrum and adjoining pelvis. On the uterine side of what looked like the seat of ligature there was a four-chambered cyst about the size of a small walnut, which contained purulent-looking material. The bladder and parts in front of the uterus appeared normal, but behind the uterus, and in the pelvis round the rectum, there was much fibroid induration and thickening, the thickening extending to and involving the walls of the rectum. This condition, extending upwards along the connective tissues in front of the spine, produced a like thickening and induration in them; and in it both ureters were

embedded, the left being so surrounded by this new tissue as to lead to its complete blocking, while the right was not so completely blocked. The left ureter was not only blocked and surrounded by this fibroid growth, but its wall evidently shared in the process, and was itself thickened. The process extended from the tissues immediately in front of the spine to the pancreas, the head of which it surrounded, and partially, at least, penetrated. Laterally it extended to, surrounded, and involved the suprarenal capsules to such an extreme degree that the left capsule could not be recognized in the indurated tissue occupying its normal site. In addition to this somewhat diffuse condition there was, in the great omentum, a scar-like puckering and a hard nodule under an inch in diameter. The mesentery was thickened somewhat generally, and at one part it contained a calcareous mass, presumably a gland. At the cæcum there was an area where the mesentery was the seat of a localized induration, accompanied with marked puckering of the part, but not causing obstruction. The left kidney, from the blocking of its ureter, presented the ordinary appearances of advanced hydronephrosis. The right kidney showed slight distension of its pelvis and calyces—the organ itself being large, swollen, cloudy, and somewhat fatty. The liver contained a considerable number of small whitish malignant nodules about the size of a sixpenny-piece in circumference.

Microscopical examination showed the new tissue to be mainly fibrous in character, but in it at the parts examined—as, for example, round the left ureter and the nodule in the omentum—there was an adenomatous structure, suggesting, and in parts closely resembling, proliferous cystadenoma of the ovary. In the liver the structure of the nodules was more that of an ordinary carcinoma.

The case, from a morbid anatomy standpoint, offers various points for discussion, which will probably be dealt with at some future time when the wider questions involved are considered. Meanwhile the opinion may be expressed, that the irritation round the ligature appeared to be the starting-point of an irritation which acquired, if it did not originally possess, malignant characters, and led to the condition briefly sketched in this report.—*Edin. Med. Jour.*

From the *Annals of Surgery* we have made the following further extracts :

### RUPTURE OF THE RECTUM BY PETERSEN'S COLPEURYNTER DURING AN ATTEMPT TO PERFORM INTRA-PERITONEAL CYSTOTOMY.

BY GEO. RYERSON FOWLER, M.D., BROOKLYN, N.Y.  
Surgeon to the Methodist Episcopal Hospital,  
and to St. Mary's Hospital.

On March 12, 1889, D. C. R., æt. 63 years, was admitted to my service at the Methodist Episcopal Hospital, with the following history : For six years he had suffered from vesical irritability and dysuria, with occasional attacks of retention of urine. Four months previous to admission a rubber catheter had been broken off in the urethra, the fragments being subsequently removed through an incision at the peno-scrotal junction.

Examination per rectum revealed a considerable enlargement of the prostate body, both in the middle and lateral lobes. A Thompson's searcher introduced into the bladder came in contact with calcareous material seemingly imbedded in the region of the left lateral lobe of the prostate.

On March 16, an attempt was made to perform intra-peritoneal cystotomy after the manner of Rydiger. The rectal bag or colpeurynter of Petersen was introduced into the rectum and 8 oz. of water, by actual measure, injected therein. A similar quantity of saturated solution of boric acid was then thrown into the bladder, after thoroughly washing out this viscus with the same solution, the penis being tied with a piece of rubber to prevent the escape of the solution from the bladder.

An incision four inches long was made in the median line about half way between the umbilicus and the pubic symphysis, and the parietal layer of the peritoneum reached. As the latter was identified, a black mass was seen through its transparent structure occupying the abdominal cavity. Upon opening the peritoneum this was found to be the rubber colpeurynter introduced into the rectum. It was at once evident that the rectal wall had given way and the bag had found its way into the abdominal cavity. It was observed that the patient, just prior to the opening of the peritoneal cavity, had exhibited signs of profound shock, this probably corresponding to the moment when the rectum gave

way and the colpeurynter entered the abdominal cavity.

The rubber bag was drawn into the incision sufficiently to cleanse its exterior, and was then partially emptied by turning the stop-cock attached to the rubber tubing which projected from the anus. The fluid was carefully gathered as it escaped, and, together with what was removed from the bag upon its withdrawal, was measured and found to amount, in all, to eight ounces. Upon withdrawing the bag, it was found that a rent fully four inches in length had been made in the anterior wall of the rectum, the upper limit of which reached to the sigmoid flexure.

The abdominal cavity was thoroughly cleansed with boiled distilled water, and an attempt made to close the rent in the rectal wall. Upon emptying the bladder in order to accomplish this, it was found impossible to adjust accurately the lower margins of the rent by means of the Lembert suture. Under these circumstances, the condition of the patient becoming exceedingly unfavourable for future interference, the operation upon the bladder was abandoned and an artificial anus established by bringing the edges of the tear in the rectal wall up to the lower angle of the incision and there securing them. In accomplishing this the real cause of the rupture was found to consist in a well-marked thinning and softening of the structures of the rectum itself. It was only after many trials and the greatest care in the manipulation that the artificial anus was established, the tissues of the rectal wall giving way again and again and the silk thread tearing out under the comparatively slight tension required to hold this portion of the rectum in position.

The patient survived the operation but a few hours, never having rallied from the shock following the occurrence of the accident. A post-mortem examination revealed the condition as above described, the softened, thinned, and otherwise weakened rectal wall being especially well marked.

The points of interest in connection with this case are as follows:

1. The fact that the quantity of water used to distend the rectal colpeurynter was rather below than above the average employed by surgeons. In fact, two ounces less than the minimum

quantity mentioned by leading writers as necessary to attain the object of the distension was employed in this case.

Cadge, in the course of a discussion on supra-pubic lithotomy before the Royal Med. and Chir. Soc., at the meeting of March 30, 1886, relates a case in which he introduced 18 ounces of fluid in the rectal bag, for the purposes of a supra-pubic lithotomy. When the bag was removed from the rectum a teaspoonful of blood followed, and then Cadge's suspicions were aroused. The patient went on very well for the first few days, when symptoms of suppression of urine arose. The patient died and at the autopsy it was found that a rupture of the upper part of the rectum, between it and the bladder wall, had taken place. Advanced renal disease was also present.

M. Nicaise, at a meeting of the Soc. de Chir., Paris, October 3, 1888, relates the following case: Patient, æt. 65 years, admitted for vesical calculus, which had produced chronic lesions of the urinary apparatus. Several lithotrities had been performed without relief, supra-pubic lithotomy was decided upon. Operation apparently successful for first 8 days, when vague and indefinite symptoms occurred. Death took place on the 15th day following the operation, without any evidence of peritonitis or other complication to account for the lethal exit. At the autopsy a rupture of the anterior wall of the rectum was found. This did not extend into the peritoneal cavity or bladder. There was considerable induration of the recto-vesical region corresponding to the site of rupture. The rectal bag had been filled with 10½ ounces of water and the bladder had been distended with 8½ ounces of fluid.

2. The condition of the rectal wall is worthy of attention. There can be no question concerning the resistance to rupture which the rectal wall offers under normal conditions. But the altered conditions incident to senility, combined with the degenerative change which the surrounding parts are known to undergo in chronic vesical disease, are precisely of a character to favor the occurrence of the accident under consideration. In the case herewith reported this was strikingly illustrated by the circumstances attending the rupture and the state in which the rectal wall was found, both at the operation and the autopsy.

It may likewise be suggested that the particular operative procedure attempted, namely, intra-peritoneal cystotomy, may have contributed to the occurrence of the accident; the support which the rectal walls receive from intra-abdominal pressure being lessened by the incision in the walls of the abdomen.

There are only two recorded instances of rupture of the rectum, prior to my own, occurring during an attempt to perform supra-pubic opening of the bladder. There are several references made to other cases, but these cannot be authenticated. Prof. Keyes, of New York, quotes the case of Nicaise, and then remarks that four or five other instances of this accident have occurred in France. It has been impossible to find any other reference to these cases except in the course of some remarks by M. Th. Anger, in the discussion upon M. Nicaise's paper, above referred to, and which is reported in connection with the latter. Mr. Anger says: "The case of M. Nicaise is the fourth or fifth of the same kind; I have therefore rejected the use of Petersen's balloon." A most thorough and extended search in the library of the Surgeon-General's office, including the proof-sheets of the forthcoming number of the Index Catalogue (Vol. XI.), having proved fruitless, I am forced to conclude that either M. Anger has not been properly reported, or else the cases which he referred to had come to his knowledge through channels other than the ordinary ones of information through publication.

The same kind of hearsay evidence seems to have been accepted by no less an authority than Sir Henry Thompson. In the article, "On the Supra-pubic Operation for Opening the Bladder," he makes use of the following language:

"First, in regard to the rectal distending bag. It has hitherto been made of a spheroidal or pyriform outline, and some operators, *it is said*, have, in emptying it, burst or seriously injured the rectum."

A further detail of facts in these cases, such, for instance, as those relating to the amount of fluid employed in distending the rectal bag, together with the condition of the rectal wall, would have been of incalculable importance in clearing up the question as to the dangers to be apprehended in the employment of this device. Two facts are undeniable: First, the advantages which the supra-pubic route to the bladder affords in

certain cases, and second, the almost indispensable assistance afforded by the rectal bag in overcoming the principal difficulties and dangers of the operation.

### THREE LAPAROTOMIES ON ONE PATIENT. RECOVERY.

BY H. C. DALTON, M.D.,

Superintendent City Hospital St. Louis.

Peter M., laborer, æt. 30 years, a strong stout man, was admitted to the hospital June 28, 1888. An examination revealed acute appendicitis, for which I operated the next day. The case was reported in the *Annals of Surgery*, February, 1889.

He returned to the hospital August 12, 1889, with a ventral hernia at the site of the operation. The hernia was pendulous, and formed a tumor as large as the double fist. In the operation to remove the diseased appendix, an incision, four inches long, was made, commencing an inch above the centre of Poupart's ligament, extending upward and outward. The cicatricial tissue covering the hernia was extremely thin.

I concluded the best procedure would be to make an incision in the centre of the cicatrix, cut away all of the same, and bring the sound tissue together. In attempting to execute this idea, I made an incision in the centre and in the long axis of the cicatrix, holding it well up, as I supposed, from the intestines. When the knife entered what we took to be the peritoneal cavity, I was mortified to find that I had cut directly into the intestine. Fluid fæces flowed from the wound. The finger introduced showed that the gut was adherent to the entire under surface of the cicatrix—that they were virtually one wall. I next made an opening into the cavity through sound tissue to the inner side of the cicatrix, introduced the finger and attempted to break up the adhesion between it and the intestine. I succeeded in this, but in doing so tore the opening in the gut still larger. I now had the gut denuded of four inches of its peritoneal coat, with a transverse hole in it occupying half its circumference. Resection being plainly the only feasible procedure, I then removed four inches of the intestine, together with sufficient mesentery to make the proper V-shape. The mesenteric wound was closed by a continuous silk suture.

In making the circular enterorrhaphy I used Senn's rubber ring, and was extremely pleased to find how quickly it enabled me to finish the operation. The entire operation, from the first incision, to putting patient to bed was thirty-five minutes. I had, however, practiced the operation with the rubber ring quite often in the dead-house.

No fæces escaped into the peritoneal cavity. I had taken the precaution to pull out the intestine, empty it, and have an assistant compress it on each side of the wound to prevent the escape of fæcal matter. The cicatrix was cut away and the wound closed without drainage. It healed by first intention.

The patient stood the operation well. For seven or eight days he had some pain in the abdomen and vomited occasionally, but at no time did his pulse exceed 90, nor did his temperature reach 102° F., except on one afternoon. As he had been given a purgative before the operation, no attempt was made to move the bowels for a week, when enemas were given which produced several actions. About the tenth day a diarrhœa developed which lasted six or eight days. At that time a mild attack of dysentery supervened, which lasted about a week, after which the patient made a rapid recovery. He was out of bed on September 8th, twenty-four days after the operation, and in a few days was doing detail work around the hospital.

Unfortunately, the parties watching the patient failed to discover the rubber ring in the fæces, although they were given positive instructions to carefully watch for the same. I take it that the diarrhœa was caused by irritation at the site of the rubber ring.

On September 30th, while apparently in the enjoyment of excellent health, he was very suddenly seized with a most agonizing pain, referred to the umbilicus. He was in collapse in less than ten minutes after the seizure. Extremities were cold and clammy, and beads of cold perspiration were seen over his entire person. His pulse was very fast and weak; rectal temperature, 97.5°. He yelled with every breath.

I diagnosticated acute intestinal obstruction, stimulated him very freely, gave morphine hypodermically, and applied heat to the extremities. As soon as possible (in about half an hour) he

was put under ether preparatory to laparotomy. His pulse improved under stimulants and ether, and during the operation was of fair volume. Just before he was etherized he stated that the pain was most intense at the site of the old wound.

Remembering my former sad experience, I was careful to avoid the cicatrix left from the last operation, and hence made a parallel incision about five inches long, an inch to the inner side of the same. The intestines were found so inflamed, thickened and matted together, that it was quite a while before we could positively make out the exact condition, which proved to be three parallel coils or knuckles of intestines, bound down by a band. The inner coil was found to contain the portion through which the circular enterorrhaphy had been made. The band was cut and removed, adhesions broken up with considerable difficulty, and the intestine straightened.

Thinking, perhaps, some narrowing of the gut might have taken place at the site of the circular enterorrhaphy, and that this might in part account for the obstruction, we deemed it unwise to close the abdomen without definitely excluding this possible cause of obstruction. Of course we understood that the band was ample cause for the obstruction, and ordinarily, we would have completed the operation as soon as the obstruction by the band had been relieved, but in this case the portion of the intestine formerly operated upon was one of the knuckles caught under the band, and in addition (which was very suggestive of the closure of its lumen) this part was particularly thickened and hard upon pressure. I attempted to determine the patulousness of the intestine at this part, as one would push his finger into the inguinal ring, with the scrotum ahead of the finger. Owing to the extreme thickness of the intestine, this could not be done. An incision large enough to admit the index finger was made, the finger passed in, and the site of the circular enterorrhaphy examined. A very slight constriction was found at this part; no more, however, than could be accounted for by the cicatrix. The wound in the intestine was closed, and, as there had been some fluid (serum) in the belly, it was washed out, and a glass drain left in the lower angle of the wound. Patient was put to bed and hot bottles packed around him.



The operation lasted an hour and a half. A half hour after the operation his temperature was 98°, pulse 120, respiration 36. As there had been but little discharge through the tube, it was removed, and the opening sewed up on the second day. The patient was then doing well, but on the third day the abdomen was considerably distended and painful to pressure. In the afternoon of that day his bowels moved spontaneously, after which the distention disappeared.

On the seventh day a fecal fistula was noted. This, however, was not large, and remained open but four days. After this his recovery was uninterrupted. He remained in the hospital four months after the operation, working as a detail around the institution. When discharged he had grown quite stout, and was in the enjoyment of perfect health.

The accidental cutting of the intestine in this case teaches that in operating for ventral hernia the incision should always be made to the side of the cicatrix in sound tissue, as there are no means of determining beforehand in what cases adhesions have taken place between it and the intestine.

Possibly it might have been better not to have operated on this patient; the reduction of the mass and an elastic support might, perhaps, have been better. But when we consider that the tendency of such a hernia is to steadily enlarge, even with elastic support, especially in the laboring classes, we must believe that the operative procedure is the better one.

Had I to perform the operation to-day, I should close the ends of the intestines, employ lateral anastomosis, and should not resect the mesentery, but would close it, as advised by Senn.

#### THE DIAGNOSIS OF PAGET'S DISEASE OF THE NIPPLE.

Surgeons and dermatologists have not infrequently hesitated over a case of chronic inflammation of the nipple resembling in its external appearance an eczema, doubting whether the radical operation of excision of the breast should be undertaken; or, in other words, doubting whether they stood in the presence of what was really chronic eczema, or that affection which long ago Paget taught was likely to

be followed by a carcinomatous involvement of the gland. Failure in the ordinary applications for eczema, the absence of itching, suspicious induration and long-standing duration, have been the clinical data upon which a diagnosis was usually founded.

Darier, in April, 1889, made a communication to the Biological Society of Paris concerning a new form of *psorospermia* found in "Paget's Disease of the Nipple," describing the parasitic *sporozoa* as occurring inside the epithelial cells of the affected parts. These observations have been confirmed and the whole subject greatly elaborated by Louis Wickham in his admirable monograph, "Maladie de la Peau dite Maladie de Paget." According to these authors, the parasitic bodies are found usually in the lower layers of the epidermis of the diseased tissue, and also in the milk-bearing ducts, and measure from one-third to one-half of the stratum mucosum. So impressed is Wickham with these discoveries, that in the conclusion of his essay he states that Paget's disease is due to the parasites of the class *sporozoa* and the order *coccidia* or *psorospermia*, and should be relegated to the group *psoropermosis*. He believes, moreover, that the presence of these bodies, readily detected by microscopic examination of the crusts from the diseased nipple, constitutes an excellent and rapid method of diagnosis.

Further confirmation of these observations comes from Dr. A. B. Macallum (THE CANADIAN PRACTITIONER, Oct. 16th, 1890), who has examined two cases of Paget's disease, and found the bodies in question. In order to avoid disputed points in pathology, Macallum suggests the word *endocyte* as a neutral and readily applicable term to describe these bodies until their true nature shall be exactly determined. Darier advises that the crust shall be teased out on a slide in Gram's iodine solution and examined with a moderately high-power objective. If fat is present, this may be removed by placing the specimen for several hours in a 10 per cent. solution of ammonia. Macallum modifies this method and secures a permanent preparation by attending to the following directions: The crust, or a portion scraped from the nipple, is teased out in a drop of tincture of iodine on the slide, the cover

glass put on, and after a couple of minutes a drop of 50 per cent. glycerine run in. The alcohol and the iodine fix the endocytes, and the iodine gives them a brown-yellow tint, which fades slowly in glycerine. This investigator was thus able to demonstrate these bodies in the free cells, the unteased portions, and in the epithelial cells covering the retracted nipple and filling the ducts. Endocytes present in epitheliomata are distinguishable from these by the absence of cystic membrane, their smaller size and their situation in the central cell of the "nest." Macallum, while unwilling fully to endorse the views of Darier and Wickham, is convinced that the sporozoa furnish a valuable aid in the diagnosis of Paget's disease.

This seems to us a most important field for future work, and not only the diagnostic value of the endocytes, but also their essential nature, are worthy of the careful study which they are at present attracting as etiological factors in various chronic cutaneous disease, and in epitheliomata.—*Univ. Med. Mag.*

WHEN SHOULD MEDICINE BE TAKEN.—The editor of the *Medical Summary* for November thus discourses on this topic: The proper time for the administration of medicines is of equal importance in many instances with the selection of the medicine itself. The sooner physicians realize this fact the better for the patients. A large number of medicines are used in a routine way, after meals, but too often; when so employed, they are not properly absorbed, or they hinder digestion, and thus undermine the foundations of nutrition. For example, if the bromides be given after meals their absorption is hindered, and their presence in the stomach interferes with the peptic ferment, so that in addition to the depression caused by bromide treatment, we have superadded that which follows derangements of digestion. Some medicines can be taken at any time because of their diffusibility; other medicaments, in order to produce good results, should be exhibited after meals; and others again should be used only between meals, when the stomach is presumed to be empty. The administration of pepsin and pancreatin furnish excellent illustrations of these principles. When the secretions of the stomach are sufficiently acid, pepsin alone can be used in

the course of half an hour after food; but if there be a lack of acidity, it will be advisable to combine the pepsin with an acid, preferably hydrochloric acid, which is the normal acid of the stomach. Should gastric digestion be slow or imperfect, a little more acid can be added from time to time, although there will be no need for increasing the amount of pepsin provided the peptones are taken up. In the use of pancreatin, on the other hand, the acid condition of the stomach will destroy its activity. This will not take place, however, if the pancreatin be taken with food just after the first mouthful is swallowed, or if the preparation be taken about two or two and a half hours after, when the contents of the stomach are supposed to be neutral in reaction.—*Medical Age.*

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THE  
Canadian Practitioner

A SEMI-MONTHLY REVIEW OF THE PROGRESS  
OF THE MEDICAL SCIENCES.

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TORONTO, JANUARY 16, 1891.

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THE CURRICULUM OF THE ONTARIO  
MEDICAL COUNCIL.

At the last meeting of the Ontario Medical Council, a committee, consisting of Doctors Bray, Bergin, Thorburn, Johnson, and Oliphant, was appointed to consider the matter of proposed changes in the requirements of the curriculum. The following extract from the report of the council's proceedings will show the intention:

"Moved by Dr. Bergin, and resolved—That the registrar be directed to place himself in communication with the authorities of the Canadian and British universities and medical colleges, and obtain their views thereon, and also obtain curricula of the leading universities on the continent of Europe; and further, that a committee be appointed, to whom shall be submitted the information so obtained, said committee to frame a report, a copy

of which shall be supplied to each member of the council at least two weeks in advance of the next annual meeting. Carried."

The committee will find that the chief difference between the curriculum of the council and those of other institutions, especially in Great Britain and the Continent, is that the former requires attendance for two different sessions on one course of didactic lectures in nearly all subjects, while the latter only require one session's attendance on each of such courses. The tendency of the age is to favor less lecturing and more teaching. It is thought by many that purely didactic lectures are of little use. We have no sympathy with any such idea; but, of course, a good deal depends upon the exact meaning of purely didactic lectures. In any case, however, they should, we think, occupy an important place in the requirements of a medical curriculum.

The most important part of a student's training is that which he receives in a tutorial and practical way. The proper places to study the various parts of biology are the laboratories and dissecting rooms. The same rule applies to chemistry. Among the great advances of modern medical science, none are more marked than those of chemistry, especially that portion which is designated physiological chemistry. A student cannot obtain a proper knowledge of this important subject without a prolonged course of practical instruction in each of the two years of his primary course. In the final years it is very important that the student should spend a large portion of his time in the study of pathology and bacteriology in the laboratories and dead house; and as far as medicine, surgery, and midwifery are concerned, he should have ample opportunity to study the different aspects of diseases at the bedside.

We understand that these various aspects of the methods of teaching will be carefully considered by the committee, and we hope that the curriculum of the council will be placed on a thoroughly scientific basis. The members of the council have always shown an earnest desire to be fully abreast of the times, and we have the utmost confidence that at the present juncture they will be found quite equal to the occasion, and that medical science and art will profit thereby.

## Meeting of Medical Societies.

### TORONTO MEDICAL SOCIETY.

Dec. 11th, 1890.

The president, Dr. Spencer, in the chair.

Dr. J. F. W. Ross read a paper on

#### THREE CASES OF TUBERCULAR PERITONITIS SUBMITTED TO OPERATION.

An abstract of this paper appears in the present issue of *THE CANADIAN PRACTITIONER*, page 35. In the discussion which followed, Dr. Temple referred to six cases which had been operated on by himself. He had not been able to follow the subsequent history in all of these cases. One case of operation was in a woman, *æt.* 40, the peritoneum was found studded with tubercles and the intestines matted together. A drainage-tube was inserted. The patient recovered and is now quite well.

In a second case, the peritoneum was found thickened and the surface presented a very curious appearance, it was covered over by stalactites as long as one's little finger; the intestines were matted together by adhesions. She got perfectly well after the operation; a small sinus exists, however, which still discharges a little watery fluid. A third case was that of a girl who had been working in a hay field, where she got wet; peritonitis followed; there was considerable elevation of temperature. An operation was performed; fluid was found in the abdomen, and the peritoneum studded with tubercle. A drainage-tube was inserted. She went home after leaving hospital and has not been heard of since. Dr. Temple advocated operation, in these cases, by exploratory incision and washing out the abdominal cavity. The diagnosis is often obscure, and the operation clears it up; the diagnosis is assisted by the peculiar abdominal pains, hectic symptoms, fluid; the patient suffers from diarrhoea and loses flesh; all these symptoms point to a tubercular origin of the disease.

Dr. Atherton exhibited a patient upon whom he had operated July 30th, 1890. She had previously suffered from ascites, *œdema* of the feet and legs, and general anasarca. On July 2nd, the left chest had been aspirated for pleuritic effusion, and forty-four ounces of fluid removed.

At the operation of adominal section, the peritoneum was found very much thickened and studded with tubercles, these were present also on the intestines; there was a considerable amount of fluid; the cavity was flushed with 1-5000 perchloride of mercury; sutures were inserted; a tube was not used for drainage. The patient recovered and in November returned to her work.

A second case was that of a woman, æt. 27, a multipara, whose abdomen began to enlarge eight months before treatment was sought. An ovarian tumor had been diagnosed by several physicians. She suffered from pain in the right chest, where pleuritic friction was heard on auscultation. Feb. 7th, 1890, she was tapped between the pubes and umbilicus and serous fluid drawn off. In June it was noticed that abdomen was again increasing in size; she was again tapped and a quantity of fluid, not quite as much as before, drawn off. She has continued well since last tapping. The diagnosis in this case was not very clear. A third case was that of a man, æt. 45, a heavy drinker, with ascites and dropsy of legs. He was tapped and the fluid did not return. He died suddenly at a subsequent date. The liver was found enlarged and fatty, and the intestines adherent.

Several years ago Dr. Atherton had two cases of a condition which he believed to be tubercular peritonitis with ascites; recovery took place in these cases without operation of any kind. Dr. Atherton thinks that tapping alone is often sufficient without making an exploratory incision. A drainage-tube is not necessary if the fluid be merely serum.

Dr. A. A. Macdonald has had two cases in his practice to which he would refer. In one case there were symptoms of incipient phthisis for two years, afterwards pleurisy with effusion; a history of consumption in the family. After exposure to cold she contracted a second very severe attack of pleurisy, and a few days after had symptoms of acute peritonitis and inflammation of the pelvic organs; there was a large inflammatory new formation in the region of the uterus, particularly towards the right; the temperature was persistently high, with some remissions. This condition of affairs lasted eight weeks, during which time she was gradually losing strength and getting worse. Obstruc-

tion of the bowels occurred, and operation was deemed necessary; this was accordingly undertaken. The peritoneum was found thickened, intestines adherent; there was very little fluid. The peritoneum was studded with tubercles, and the serous membrane was thickened and inflamed. Adhesions were separated as far as possible and the abdomen closed; the temperature remaining below 100° after the operation with the exception of one occasion, when it rose to 103°. A drainage-tube was kept in place for three days. The wound healed and the patient recovered. For over a year she has been quite well; she has lost her cough and now does not present any consumptive symptoms.

In a second case Dr. Macdonald operated for pyosalpinx; he found the peritoneum studded with tubercles. Recovery occurred.

Dr. Price Brown asked if creasote had been given a fair trial in these cases of tubercular peritonitis, and spoke of its beneficial effects in the treatment of tubercular disease elsewhere.

Dr. Spencer asked if drainage in these cases were considered necessary any more than in cases of pleurisy with effusion.

Dr. Ross, in reply, agreed with Dr. Temple that the diagnosis was difficult. In the treatment the question is how many cases will get well with aspiration alone, and in what cases is incision necessary. Laparotomy is preferable to simple tapping, because it is safe and we can confirm our diagnosis. A question of interest is as to the method in which a cure is affected by such procedure; is it on account of the withdrawal of the fluid only? Drainage in these cases is not necessary. Dr. Ross has not used creasote.

## NEW YORK ACADEMY OF MEDICINE.

### SECTION ON ORTHOPÆDIC SURGERY.

Stated meeting, Nov. 21st, 1890. V. P. Gibney, M.D., Chairman.

#### DR. BEELY'S APPARATUS FOR MEASURING THE THORAX.

Dr. N. M. Shaffer exhibited one of these instruments, which had been presented to him while he was in Berlin, by the inventor, Dr. Beely. A somewhat similar apparatus had been called by Dr. Nebel a Kyrto-graph. The

apparatus consists of a series of narrow parallel steel bars, placed closely together, and sliding in a rectangular metal frame. Each bar terminates in a blunt point, near the end of which, on the under surface, is a metallic point or stylus. This arrangement of bars looks not unlike a huge comb. On bringing the pointed ends against the chest, or any similar object having an irregular outline, the bars adjust themselves in the frame, so that the pointed ends form an outline identical with that of the object against which they were placed. A simple cam movement then clamps them in this position. The instrument is next laid upon a piece of paper resting on a sheet of felt, and the points on the under surfaces of the bars are made to puncture the paper by passing a small roller over all the bars successively. In this way, the desired outline is recorded on paper as a series of small punctures, about one-fifth of an inch apart. When taking a tracing from a patient while standing, an erect position is secured by means of a plumb-line fastened to a belt which is buckled around the body. In order to secure still greater accuracy, the instrument is provided with a spirit-level. The exact level at which this transverse tracing of the chest is taken may be marked with nitrate of silver, so that tracings taken at different times may be readily compared. With the patient in the prone position, the instrument may be used; but a longitudinal tracing, as of the spinal column, with the patient erect, is not within the contemplated scope of the instrument.

Dr. Shaffer said that he had made several tracings with this instrument, and he had been very favorably impressed with its action and accuracy.

Dr. John Ridlon said that he had seen Dr. Beely using it with the patient in the prone position, and that he had understood that its action was only satisfactory when employed in this way. At the Berlin Congress, Dr. Ncbel had exhibited a much cheaper but less accurately made instrument, constructed on the same principle. A series of round rods were placed parallel to each other, and made to slide through a large round bar. The small bars terminated in buttons, which were applied to the chest. The outline was then transferred to paper by laying the machine on the paper, and passing a pencil along the buttons.

Dr. A. B. Judson admired the mechanical features of the instrument, but thought that such tracings of cases of lateral curvature were of but little value, in view of the fact that the changes in contour occurred from day to day as a result of differences in the general tone of the patient.

A CASE OF SUPPOSED EVACUATION OF A PSOAS,  
OR LUMBAR ABSCESS THROUGH THE VAGINA.

Dr. Samuel Ketch presented such a case. A child, five-and-three-quarter years of age, of healthy parentage, and having a good family history, was admitted to the hospital on October 22nd, 1890, with the history of a fall six or eight weeks prior to her admission. Two weeks before she was presented for examination, she was first noticed to walk peculiarly, and she complained of "pain in her feet." She was thought to be suffering from hip-joint disease by her attending physician. At the time of the examination her general condition was fair, and there was no pain, and the motions at the hip-joint were normal, with the exception of a slight limitation of extension on the right side when the patient was in the prone position. Close examination revealed a small kyphos in the lower lumbar region; the right hip was prominent, and relatively larger, and there was a feeling of fluctuation on that side. There was a discharge of pus from the vagina. The case was of interest, both on account of the unusual mode of evacuation of the pus, and because of the symptoms which had led to the diagnosis of hip-joint disease.

Dr. Shaffer had seen the case just reported. He had met with cases where the abscesses of Pott's disease opened into the rectum, vagina, and bladder; and in one case of disease in the dorso-lumbar region, which had extended over a period of about twenty years, pus was discharged from the bladder at intervals of a few months, accompanied by the usual symptoms of acute abscess formation. The cases in which the abscess had opened in these unusual situations had all done well, and he attributed this to the valvular opening through which the pus was discharged. In one of his cases, an abscess was found pointing into the rectum, and was purposely evacuated at this point by means of a trocar. The result had been extremely satis-

factory. A similarly favorable prognosis could not be given where abscesses ruptured into the lungs. He had seen several of these cases, and in one, now under observation, which he considered unique, a boy with mid-dorsal disease suffered at intervals from fever, accompanied by the expectoration of pieces of the cancellous portion of bone.

Dr. R. H. Sayre said that anatomical considerations would lead one to expect that, owing to better drainage, abscesses opening into the alimentary canal would pursue a more favorable course than those which ruptured into the lung. He recalled a case where an abscess, situated on each side of the vertebræ, suddenly enlarged and caused fatal asphyxia. The autopsy showed that "a saddle bag" abscess was situated at the bifurcation of the trachea.

Dr. J. K. Young, of Philadelphia, said that he had recently seen a case of lumbar Pott's disease, in which the abscess had been evacuated through the vagina, and also through the abdominal walls. It had pursued a favorable course.

Dr. Thomas H. Manley had once treated a case of abscess in the mid-dorsal region, where evacuation had occurred through the umbilicus. It made a good recovery.

Dr. Agramonté suggested that the exact condition present in Dr. Ketch's case could not be affirmed until the vaginal discharge had been examined for gonococci.

The Chairman thought that such an examination was highly important, and suggested that search should also be made for the opening through which the pus was discharged.

Dr. Ketch, in closing the discussion, said that he was aware that the report of the case was somewhat premature, and had only been presented at the request of the Chairman for clinical material. He had not been able as yet to make the examinations suggested; but the rational symptoms and the clinical history of the case seemed to warrant the position which he had taken. In an experience of thirteen years at the Orthopædic Dispensary, he had never before met with such a case, and had only seen one case in private practice, and in this one Dr. L. A. Sayre had verified the condition. In this case there was a favorable termination.

## Clinical Notes.

### TWO CASES OF EXTERNAL URETHROTOMY.

BY ANGUS MACKINNON, M.D., GUELPH.

CASE I.—*Complete laceration of urethra—The broken ends retracted from each other—The result of a fall.*

A. D., a young man about twenty-five years of age, came under observation on April 19th, 1889. The day before, he fell so that the perineum struck the sharp edges of a board. There was no external wound, but he soon discovered blood flowing from the urethra. By making forcible efforts, he succeeded in passing a little urine that night and next morning. On making examination the scrotum was found all discolored, and the perineum much swollen. He could not now pass any urine. Repeated attempts to pass a catheter failed, the point of the instrument always leaving the urethra at the seat of injury. Chloroform having been administered, the patient was placed in the lithotomy position, and, with the concurrence and assistance of Dr. Howitt, I cut down upon the urethra. After turning out a large clot, the point of the sound previously introduced into the urethra presented itself at the bottom of the incision. It was now obvious that the urethra was completely lacerated, as the whole circumference of the tube was seen where the sound escaped from it. I was not prepared to expect so much difficulty in finding the other end as I experienced. Indeed, it will seem almost incredible to any surgeon who never did this operation when I say that careful search in good light and with every facility was made for nearly an hour before the posterior part of the canal was found retracted among the tissues about an inch from the anterior portion. During this long search the patient at one time struggled under the anæsthetic, and thus forced a few drops of urine into the wound. This at once guided the probe into the urethra. It was but the work of a few minutes to introduce a large catheter into the bladder and complete the operation. The laceration occurred at the commencement of the bulbous portion of the urethra.

In the fourth week I was compelled to

abandon all use of instruments, owing to the development of severe orchitis and high fever.

In the following September, it was found, as was expected, that a very tight stricture had formed at the seat of injury—no doubt due to cicatricial contraction. Though he was able to void urine in a small stream, it was not possible to pass any catheter.

In a second operation, much less difficult than the first, the stricture was freely divided, and a large catheter kept in the bladder till the external wound was healed. Although perfectly well, he has been advised to continue the use of a large bougie (No. 14) at least once a week.

CASE 2. R. M.; this man was over eighty years old, and suffered from an impermiable stricture for many years. Much of his time for the past ten years was spent in forcible attempts to void his urine. The stream was always small, at times only drop by drop. Besides the stricture, a false passage existed, the probable result of an effort made by some surgeon years ago to cure his stricture. Complete retention of urine followed a slight exposure to cold. His ordinary medical adviser, in view of his age and the character of his trouble, offered him no hope, and failed to give him any relief. Late in the afternoon, I first saw the patient. He was at once removed to the hospital, and a warm bath given. Even under anesthesia, I failed to pass any size of catheter. The aspirator was therefore used to relieve the bladder, and preparation made for operation next morning.

An incision in the perineum about two inches long was made down to the urethra, as in the first case. A large sound was introduced into the urethra as far as it would pass, and the passage opened on its point. A stout silk ligature was put into each side of the urethra, and each one tied in a loop and given to an assistant to hold. By these means the passage was kept well in view. The false passage led me astray for some time, but after breaking down some bands, I finally succeeded in passing a fine probe through the stricture. Along side of this I passed another, and then a larger one, until I found I had space enough to pass a grooved sound into the bladder. I then freely divided all the stricture, so that I could pass a number twenty bougie into the bladder.

During convalescence, through some neglect on the part of the nurse, the rectum was allowed to become firmly impacted with feces. Besides he had a mild orchitis; yet in six weeks he was well enough to leave the hospital. The chief interest in this case centres on the advanced age of the patient, and the prompt recovery from what must have been for him a very formidable operation. He remains entirely free from all vesical irritability—a comfort he knew not for over twenty years.

Since writing the above, attention has been called to the value of making pressure above the pubes to force a jet of urine into the wound. See January Number *Am. Journal Medical Science*, article by Dr. J. W. White on Perineal Section.

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## Book Notices.

*The Physicians' Visiting List—Lindsay & Blackiston's for 1891.*

This is one of the most popular visiting lists published. It is well arranged, contains much valuable information, and being small, requires but little space. This is quite a consideration to many who do not care to have the appearance of a well-fitting coat spoiled by a big book in one of the breast pockets.

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## Book Reviews.

*Diseases of the Eye.* By Edward Nettleship, F.R.C.S., Surgeon to the Royal London (Moorfields) Ophthalmic Hospital, etc. Fourth American from the fifth English edition, with a chapter on examination for color-perception by William Thomson, M.D., Professor of Ophthalmology in the Jefferson Medical College of Philadelphia. Philadelphia: Lea Brothers & Co., 1890.

Mr. Nettleship's book is well known both in Britain and America. It was for many years the favorite text-book for the student, and still is one of the most compact and useful works on the subject published in the English language. The book is specially written for the student, and will prove of great service to him whilst attending the hospital clinic and preparing for examination. The American edition is enhanced in

value by the addition of the chapter on examination for color-perception by Dr. Thomson, of Philadelphia.

*A Hand-book of the Diseases of the Eye, and Their Treatment.* By Henry R. Swanzy, A.M., M.B., F.R.C.S.I., Surgeon to the National Eye and Ear Infirmary; Examiner in Ophthalmic Surgery in the Royal University of Ireland, etc. Third edition. London: H. K. Lewis, 136 Gower Street, W.C., 1890.

This book has become so widely and so favorably known that an extended notice of this, the third edition, is uncalled for. It is a capital text-book for the student, and will be found equal to, if not surpassing, any of the modern works on the subject of ophthalmology. The new edition has been thoroughly revised, all recent advances in the study of the subject have received due attention, the articles are written in a clear and comprehensive style, and the illustrations are well executed and adequate. The student who receives this as his text-book will find it in all respects an excellent work.

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## Personal.

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DR. E. H. TRENHOLME, who has practised in Montreal since 1862, has left the city on account of ill-health, and we learn from the *Canada Medical Record* that he is not likely to return. He is now in Los Angeles and will probably make that vicinity his permanent home

AT a recent meeting of the London Medical Association, the following officers were elected: President, Dr. W. H. Moorehouse; Vice-President, Dr. J. McArthur; Treasurer, Dr. T. P. Drake; Secretary, Dr. J. B. Campbell.

DRS. J. D. THORBURN and Winnett have returned from Berlin to Toronto.

DR. GEO. T. ROSS, of Bishop's College, Montreal, after a stay of some weeks in Berlin, has returned with some of the precious lymph in his possession.

DR. D. J. GIBB WISHART has removed to 47 Grosvenor St.

DR. J. E. ELLIOTT has returned from Europe and resumed practice in Toronto.

DR. H. W. DAV, of Trenton, one of the best known physicians of Central Canada, a member and past-President of the Ontario Medical Council, has been appointed Registrar of the County of Hastings.

PROF. RAMSAY WRIGHT is likely to remain in Berlin for some months. The Vice-Chancellor does not wish him to return until he has learned all that can be learned about the German's methods of research in bacteriology.

DR. KOCH is 47 years old. After graduating at the University of Gottingen, he commenced practice in a little village near Hanover, but failed to make a living. He then tried Rackwitz, a small malarious town in Prussian Poland, with no better results. Finally he settled in Wollstein, and in 1880 attracted much attention by his analyses and medical testimony in the famous Speichert poisoning case. In 1882 he discovered the bacillus of tuberculosis, and in 1883 the germ of cholera while acting as the head of the medical commission sent by the German Government to Egypt and India to study the causes and prevention of cholera. On his return to Germany he received an honorarium of 100,000 marks, the rank of Privy Councillor, and the Rectorship of the Imperial Institute of Hygiene.

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## Obituary.

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DR. JOHN STEWART, a practitioner of Kingston for nearly fifty years, died in that city, Jan. 12th, in his 80th year. He was a native of Perthshire, Scotland, and was educated in Edinburgh, where he graduated in 1833. He was well known to a past generation as a man possessed of great ability, pugnacity, and eccentricity. He took a prominent part in the establishment of the Kingston General Hospital and the Royal College of Physicians and Surgeons.



## Births, Marriages, and Deaths.

### BIRTHS.

SHEARD.—On Monday, January 5th, the wife of Dr. Sheard of a son.

### MARRIAGES.

HODGKIN—JOHNSTON.—At the residence of the bride's father, December 31st, the Rev. Thomas I. Hodgkin, M.D., of "Clinton Elms," Deerpark, and Anna M., daughter of James Johnston, Esq., Kincardine.

WISHART—GUNTHER.—On Monday, January 5th, D. J. Gibb Wishart, M.D., to Rebecca M., daughter of Egmond Gunther, Toronto.

FARNCOMB—COLDWELL. — At Seaforth, on January 7th, 1891, Alfred Farncomb, M.D., L.R.C.P. (Eng.), of Newcastle, Ont., to Hannah Mary, eldest daughter of W. E. Coldwell, Esq., of Constance, Ont.

## Miscellaneous.

FOR the privilege of reporting Professor J. William White's valuable address on Antiseptic Surgery, we are indebted to the courtesy of the Editor of the *Annals of Surgery*, to whom it was first promised.

THE *University Medical Magazine* (University of Pennsylvania) announces a new departure in instituting a department which will contain a summary of the progress of medicine, abstracted from the most important medical journals at home and abroad.

At the recent meeting of the Southern Surgical and Gynecological Association, held at Atlanta, Georgia, Dr. Louis S. McMurtry, of Louisville, was elected president, and Dr. W. E. B. Davis, of Birmingham, Ala., was re-elected secretary.

### ECZEMA:—

R.—Zinci oxidi . . . . . 1 ounce.  
Glycerinæ . . . . . 2 ounces.  
Mucilag. acaciæ, aa, . . . . . 2 ounces.

M. In extensive patches of eczema this paste is very agreeable. If itching is severe, one per cent. of carbolic acid may be added.—*Courier of Medicine.*

DIOVIBURNIA.—Dr. I. N. Love, Professor of Diseases of Children in Marion-Sims College of Medicine, St. Louis, says: The subject of uterine disease reminds me that during the past six months I have had my attention drawn to a remedy which goes under the name of dioivurnia. I was not familiar with the component parts, but having read the emphatic endorsement by Drs. J. B. Johnson and L. Ch. Boislinieer, of St. Louis, two of the most eminent professors and practitioners of the city, as well as that of Dr. H. Tuholske, I was induced to give the compound a fair and thorough trial, and I am convinced that in dioivurnia we have a valuable addition to our armamentarium in our battle against the diseases of women.

A NEWSPAPER DIRECTORY FOR CANADA.—Messrs. A. McKim & Co., advertising agents, of Montreal, are preparing what will be the first comprehensive newspaper directory of this country. Canada is now quite large enough, and its journalistic interests of sufficient importance, to require its own annual newspaper directory; and there are several new features in the proposed work which will make it a valuable hand-book for all seeking information concerning the Canadian press.

Dr. O. W. Holmes says it is not true. The poet physician has had it brought to his notice that a learned small girl of Boston has spoken of him as having been for many years a "Professor of Monotony at Harvard University."—*Maryland Medical Journal.*

INJECTIONS FOR SEAT-WORMS.—The *Annals of Gynecology and Pædiatry* quotes the following prescription to remove seat-worms:

R.—Tincture of rhubarb . . . . . 30 drops.  
Carbonate of magnesium . . . . . 3 grains.  
Tincture of ginger . . . . . 1 drop.  
Water . . . . . 4 ounces.

The mixture should be warmed and used as an injection, repeating three or four times in twenty-four hours.

### WANTED.

PHYSICIAN—three years' experience. Graduate of Bellevue Hospital Medical College, also Ontario Graduate. Desires a partnership or location on salary. References satisfactory. Address

F. W. P., Physician and Surgeon,  
324 East 30th Street, New York.