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THE LOCAL TREATMENT OF ECZEMA.<sup>1</sup>

BY

W. M. NELSON, M.D.

The subject to which I desire to call your attention to-night is the local treatment of only the more common forms of eczema, and it will not be out of place to offer first a few general directions regarding the cleansing of eczematous surfaces and to detail some approved methods for the removal of secondary products—such as crusts and scales.

*For cleansing purposes.*—Avoid, if possible, the use of plain water or soap and water. If the former has to be employed it should be as hot as can be borne, and the surface over which it has been used should be dried quickly and thoroughly and the selected dressing immediately applied. All detergent fluids should be warmed before use. Olive or cottonseed oil will cleanse almost as well as soap and water, and, if the part is carefully wiped, but little greasiness remains. Again, water boiled with a small quantity of oatmeal, bran or barley, and then strained can be used with comparative impunity. Or thin strained rice-milk cleanses well and is soothing to tender and acutely inflamed surfaces. Thin hot starch, to which has been added boric acid in the proportion of a teaspoonful of the latter to a pint of the former, is a very excellent and soothing detergent.

*To remove crusts, scales, etc.*—Before any line of local treatment can be begun all secondary products—crusts, scales, etc.—must be removed. This can be accomplished by saturating them with oil. For instance, in a case of eczema of a child's or infant's head, where numerous crusts are present, the part should be well sopped in oil and then covered with pieces of lint or cotton-flannel which also have

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<sup>1</sup> Read before the Montreal Clinical Society, January 28th, 1898.

been saturated with the oil, and over all placed a well-fitting cap or fez. The process is to be repeated until the crusts are soft enough to be wiped, combed or picked off.

Starch poultices are very useful for non-hairy parts, but require to be properly made. The method of doing this is to blend the starch thoroughly with tepid water, not using more of the latter than is just sufficient to make them blend, then pouring on boiling water till the substance assumes the proper consistency. After this place the containing vessel on the stove for a minute or two and add a teaspoonful of boric acid to each pint of the contents, stirring briskly. Gruel, with the addition of a teaspoonful of sodium bicarbonate to the pint, is also of use. Decoction of marshmallow (*althææ radix*), with the same amount of soda, is pleasant and serviceable.

When the surface is not tender, and the scales and crusts are dry and abundant, the free use of vaseline acts fairly well. The macerating qualities of this petroleum product that are so often injurious to other conditions are here of decided benefit. When the scales are harsh, tough and adherent, other measures than those already given will be necessary, and these will be mentioned when dealing with sub-acute and chronic eczematous conditions in the adult.

Local treatment for the relief and cure of eczema is, in the great majority of cases, the only satisfactory one. The fact that the skin is an organ with its own peculiar functions to perform, and just as subject as any other to structural disease and to functional disorder is often lost sight of. Every morbid condition may be present in the economy without eczema or *vice versa*. That any discoverable defect in the general health should be attended to, is not to be denied for a moment, neither is the oft-repeated plea for putting the patient into the best possible condition.

Eczema may be acute, sub-acute or chronic. These terms are often used with different meanings—either referring to the intensity of the process or its duration. In what I have to say to-night they will be used to define the actual condition present, and not the length of time it has existed.

*Infantile eczema, i.e.*, the disease as usually seen in those under five years of age, has a couple of marked peculiarities, viz., a great tendency to become pustular, and to be confined to the head and face. In over 80 per cent. of all cases the head and face are alone affected. In the acute variety, where there is free pustulation, the crusts are to be removed, and, if necessary, the hair cut short. Then one of the following may be applied continuously: Equal parts of almond oil and lime-water with 2 per cent. to 4 per cent. of ichthyol. White

precipitate grs. v—x to the ounce of simple or other ointment, or lotio nigra with 1 per cent. to 2 per cent. of carbolic acid. So soon as the process has become subacute, an ointment or soft paste, containing 2 per cent. to 10 per cent. of salicylic acid may be substituted for the oil or lotion. It is in this stage that the soft pastes, such as Lassar's or Ihle's, find their place. As Lassar himself says, "the influence of the soft paste is a benignant one. It produces a soft, slight scaling, and, besides, a constant drying, because it acts like a filter. All the lymphatic exudations pass through the porous layer and are drawn out into the bandage instead of forming a crust upon the wounded skin itself. This is an important advantage for the completion of regeneration, because the epidermis is not obstructed by masses of adherent exudate." Lassar's paste consists of acid. salicylic gr. x—xxx, amyllum, zinci oxidum aa ʒii, vaseline, ʒss.

If the disease is seborrhœic in character, resorcin, sulphur, white precipitate or oleate of mercury may be used. Ihle's paste is a good application. It is resorcin gr. x, amyllum, zinci oxidum, lanolin, vaseline aa ʒii.

In *sub-acute vesicular eczema of the scalp*, Lassar's paste can be used from the first, and the percentage of the acid increased from 3 per cent. or 5 per cent. up to 10 per cent. Should the itching be troublesome, a small quantity of the oil of cade may be added.

In *chronic eczema of scalp*—that low form seen both in childhood and adolescence—the "Shepherd's salve" is very valuable: Hydrarg. sulphurati rubri 1.0, sulphur sublimatum 24.0, adeps, 75.0, ol. Bergamottæ gtt. aliquot. The oleate of mercury, in increasing strength, often acts admirably.

*Eczema of the face*.—According to Unna, eczema of the face in infants occurs in three forms—the nervous, the seborrhœic and the tubercular.

1. The nervous: The characteristics of this form are that it begins on previously healthy skins, is confined to the forehead, cheeks, and chin, leaving the middle of the face clear, "like a mask with the centre cut out," is extremely itchy, tends to recur and is most often met with during dentition or accompanying gastro-intestinal disturbance.

For the treatment of this form the soft pastes are excellent. Lassar's is particularly useful, by itself, or with other drugs, such as ichthyol 3 per cent. to 6 per cent., or the tars, incorporated with it. These pastes should be applied under a mask, and renewed two or three times a day. When it is desirable to clean the surface and remove any of the paste that may be adherent to the skin, oil, and oil only, should be made use of.

The glyco-gelatines and varnishes are often of great service, as they are cleanly and require no mask or bandage. The formulæ for these will be given later on. It is most important that the patient be prevented from scratching, as little of a remedial nature can be done so long as the finger-nails continue to irritate and infect the already diseased surface. Two ways of preventing the child from reaching its face, and, at the same time, allowing a certain freedom of movement of its arms, are as follows: the use of a long-sleeved garment, the sleeves of which are fastened to the sides by safety pins, or, the placing of a light splint on each arm.

2. The seborrhœic: This form is always preceded by a seborrhœa of the scalp. It attacks the ears, cheeks, and eyebrows, and may extend to the neck, shoulders, and upper arms. There is not so much irritation and itchiness as in the nervous form, and the crusts and scales are distinctly fatty in character. In treating this form, the scalp, of course, must receive the same attention as the face, as the former is the source of infection. After clearing away all crusts and scales, any one of the following may be used with advantage. Sulphur sublimati vel præcip. gr. x., ungt. aq. rosæ ʒi. Sulphur præcip. gr. x., resorcin gr. x.—xv., ungt. aq. rosæ ʒi. Resorcin gr. x.—xv., ungt. aq. rosæ ʒi. Ihle's paste. Hydrarg. oleatis (10 per cent.), ʒ gr.—ʒii. ungt. simpl. ʒi. Thymol gr. v—x., ol. olivæ ʒi. Bassorin varnish with 1, 2, or 3 per cent. resorcin or sulphur (for face only).

3 The tubercular. This is caused and kept up by a discharge from the eyes, ears or nose. Stop the pus supply and the face lesions will rapidly disappear with the use of a white precipitate or any other antiseptic ointment.

*Eczema intertrigo.*—The parts covered by the napkin, and where two surfaces of the skin are in contact, are those usually affected by this form of disease. The first essential in treatment is extreme cleanliness and dryness. Powders may be used with benefit, such as equal parts of impalpable boric acid, kaolin and starch, carbonate of magnesia, or pulv. aluminis, acid boric aa gr. xv, acid carbolic gr. iiii calcii carb. præp. ʒiiss, pulv. amyllum ʒ ss.

As a general rule, however, absorbent antiseptic soft pastes are preferable. A very good application is ichthyol ammon-sulph. gr. v.—xx., zinci oxidum, magnes carb. aa ʒii., ungt. aq. rosæ ʒ ss. applied continuously.

*Eczema of the face in adults.*—This is usually erythematous in character, the surface being red, infiltrated and covered more or less with fine scales. Sometimes it may be moist and somewhat crusted. If the condition is an acute and irritable one, soothing and

cooling applications are in order; if sub-acute or chronic, those of a stimulating nature are to be brought into use. Nearly all acute cases do best with lotions, and those that leave a fine and impalpable powder on the skin are to be preferred. The modified calamine lotion is one of the best. An ichthyol liniment is also useful, as it soothes, lessens the hyperæmia and is keratoplastic and antiseptic. Calamine liniment is also a useful application. Pulv. calamina præp. ʒiiss. zinci oxidum ʒii. aq. calcis, ʒiiss. aq. sambuci ad. ʒiv. Ichthyol gr. x-xx. aq. calcis, ol amygdal. aa ʒss. calamina præp. ʒiiss. zinci oxidum ʒii., aq. calcis ol. olivæ aa ʒii.

All soothing remedies should be applied constantly, the mask only being lifted to clean the surface or renew the application, which latter should be done frequently. When the disease has become sub-acute, or has been so from the first, diachylon ointment with salicylic acid may be used, and, to control the itching, ol. juniper, ol. picis, carbolic acid, menthol or camphor may be added. Lassar's paste is very valuable also, and the same anti-pruritic drugs as those just mentioned may be incorporated with it.

In private practice and for fastidious patients generally, tragacanth jelly or Bassorin varnish may be used to the exclusion of anything else, or, ointments or hard pastes can be used at night, and the jelly or varnish during the day. Pick's jelly is a sample of this style of preparation, but another and better is the Bassorin varnish introduced by G. T. Elliott, of New York: Bassorin 48.0, dextrin, 25.0, glycerin 10.0, aq. ad. 100.0. Pick's jelly is gum tragacanth 50, glycerini 2.0. aq. ad. 100.0.

To these may be added whatever remedy is indicated—such as tar, resorcin, salicylic acid, etc., etc.

*Eczema barbae simplex*.—Shaving should be begun at once, unless the parts are too acutely inflamed, when soothing applications are called for; epilation is often recommended, but is seldom necessary when shaving is practised, as the loosened hairs come away with the pull of the razor. Any of the following ointments or creams are curative:

Hydrarg. oleatis (10 per cent.) ʒii—ʒiv to the ʒ of lanoline cum oleo. Ungt. hydrarg. nitratis ʒi—ʒii, vaseline ʒi. Ungt. diachyli alone or with carbolic acid, salicylic acid or ichthyol. Ungt. hydrarg. nitrat ʒi—ʒii, ungt. sulphuris ʒii, acid carbolic gr. iii, ungt. simplex ad ʒi. Ungt. hydrarg. oxid. rubri ʒi ss., ungt. sulphur ʒiii, resorcin gr. xv, ungt. simplex ad ʒi.

The selected ointment or cream should be gently worked into the affected parts at night and cleansed off in the morning with very hot

water; after which the parts are to be thoroughly dried and then smeared with one of the varnishes or jellies to which some appropriate drug has been added. A little powder over all will do away with the shine of the varnish or jelly and improve the general appearance.

*Eczema of the adult genitals.*—This is a common and most distressing variety of the disease. It may involve the scrotum only in the male and the vulva in the female. Usually the parts are reddened, infiltrated, excoriated, moist and intolerably itchy, but sometimes they are only erythematous, dry and scaly. The process is usually subacute or chronic; when acute, ointments are to be avoided, as they seldom do any good.

In the acute form any of the following may be used: Calamine liniment, calamine lotion, lactate of lead, *i.e.*, lig. pb. subacet. ʒi to ʒiii of sweet milk, or a lotion such as Duhring's:—Bismuth carb., amyllum, glycerinum, aa ʒss, aq. lauro-cerasi ʒiv.

In the subacute and chronic forms, control the itching, and stimulate and remove the infiltration.

1. To control the itching. 1—3 per cent. nitrate of silver in spirit of nitrous æther painted over the diseased surface, beginning with the lower strength. Cloths wrung out of boiling water and applied as hot as can be borne for a few minutes, the part is then to be rapidly dried and the ointment selected put on. Best of all is Crocker's plan of applying a mustard leaf over the lumbar enlargement of the spinal cord.

2. To remove the infiltration and thickening, tars, salicylic acid or the two combined. Mercurials, such as the white precipitate, or the oleate combined with morphia—1 gr. of the latter to ʒi of the former. Jackson's method of sweating may be used in dealing with the scrotum, *i.e.*, enveloping the part in sheet rubber and supporting it with a suspensory bandage, or, another way is to line a suspensory with gutta-percha tissue, inside of which is the selected ointment spread on lint or canton flannel. These ointments may also control the itching.

*Eczema ani.*—The anus may alone be attacked; usually, however, the disease is present nearby. The itching here is very great, and stronger applications can be used than on the genitals. Hot water applied as before described is peculiarly grateful. Any of the stimulant and anti-pruritic ointments mentioned above may be used, the strengths being slightly increased. Duhring uses the following as a sort of routine treatment: Sulph. precip. gr. xv, naphthol gr. xx, morph. acetat. gr. ii, zinci carb. ʒi, ungt. aq. rosæ ad ʒi.

*Eczema of the legs* is seldom seen except in middle-aged or old people, and is generally associated with varicose veins, which must, of course, receive appropriate treatment. Rest in a horizontal position will always hasten the cure. When the condition is acute, and œdema, swelling and weeping are present, a simple 3—4 per cent ichthyol lotion, continuously applied, is indicated. Kaposi uses the following: *Aluminii sulph.*, *cryst.* 30.0, *acid. acetic* 30.0 ; *calcii. carb.* 13.0, *aquae* 100.0.

Burow's solution is another good one—diluted 1—10 to 1—50 : *Plumbi acetatis* 5x, *alum* 5v, *sodii sulphatis* 5i, *aquae* 3x. Dissolve the pb. in 3x of water, and the sodium in the remainder. Mix, stir and let stand for two days, filter without washing the residue.

In those cases of painful eczema of the legs seen most frequently in women, equal parts of lead lotion and black wash, with gr. xxx of oxide of zinc to the ounce will often give prompt relief.

For chronic moist eczema, with marked infiltration and hardening, *spiritus saponis viridis* (3ii green soap—7i spts) or, the compound tincture of green soap of Hebra, *ol. cadini*, *saponis vir. spts. vini rect.* aa 3i, *spt. lavandulæ* 5ii ; or soft soap itself, with diachylon, salicylic or tar ointments.

The glyco-gelatine preparations are : *Gelatin alb.* 15.0, *zinci oxidum* 10.0, *glycerinum*, 30.0, *aqua* 40.0 ; or *Gelatin alb.* 15.0, *zinci oxidum* 10.0, *adipis* 10.0, *glycerin* 65.0.

The consistency can be altered as desired by increasing or lessening the proportion of glycerine. While the part is being cleaned, made aseptic and thoroughly dried, the pot containing the glyco-gelatin should be in hot water so that its contents will be liquified. Apply evenly with a bristle-brush, and, before it sets, place over it a film of absorbent cotton or a piece of thin, soft muslin.

Plasters (made by J. & J. and S. & J.) containing salicylic acid 10—50 per cent., salicylic acid and oxide of zinc or ichthyol and salicylic acid.

Martin's rubber bandage may be used during the day and an ointment applied at night.

*Eczema of the hands* may be acute or chronic, but usually it is chronic with acute exacerbations.

When acute the treatment does not differ materially from that already described for the same process elsewhere. In the subacute and chronic form first remove the thickened epidermis by one of the following :

1. Unna's plan of applying 20 per cent. salicylic acid plaster which form a sort of splint to the fissured surface, acts continuously and needs renewal only at intervals of a day or two.



2. Constant application of a pancreatic emulsion or glycerale of papoid.

3. The continuous employment of a salicylic and ichthyol ointment, 10 per cent. of each.

4. The method employed by Dr. Shepherd, liq. carbonis detergens is painted on pure at night, lanoline applied after and again in the morning. He claims to not only remove the hypertrophy and infiltration, but at the same time to produce a distinctly curative effect upon the disease itself.

After getting rid of the thickened epidermis, an ointment, paste, gelatine, varnish or plaster containing salicylic acid and ichthyol can be confidently recommended, judging the strengths according to the degree of acuteness or chronicity of the lesion. The tars (ol. picis, ol. rusci or oil of cade) are also serviceable, beginning with a moderately weak application. Duhring's routine ointment is : Ungt. picis ʒii, calomela ʒss, vaseline ʒvi.

## Case Reports.

### A CASE OF MALIGNANT ENDOCARDITIS.<sup>1</sup>

BY

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The following case seems to me to be of sufficient interest to be related before this Society.

Solomon Iseman, a Russian peddler, aged 32, was admitted to the Montreal General Hospital, under Dr. Molson's care, on the 5th of February, 1898. His chief complaints were weakness, vomiting, and a feeling of chilliness. He had come to Canada eight years ago, and some time before emigrating had had an illness which was probably malaria. In this country he had had gonorrhoea four years ago which lasted six months, and an accident seven years ago which had necessitated amputation of the right arm in its upper third. He had never suffered from rheumatism or syphilis.

The onset of his illness was on the evening of December 30th, 1897, with lancinating pain in the left side of the chest and right knee, and during the night he felt feverish and had a chill. Two days later he had less pain, and was able to get up and do some work in the house.

On January 5th, 1898, he applied for relief at the Out-door Department of the General Hospital, where a diagnosis of subacute rheumatism was made. During the next three days he felt worse, and had coryza with sneezing, but by the 9th was well enough to resume his peddling. On the 13th he was again ill with malaise and nausea, but no vomiting or chills, and was seen at the Out-door Department on the 15th, 19th and 22nd with much the same complaints. On the 26th there were headache and vomiting, and on the 29th the same symptoms, with a temperature of 101.4° F. and respirations 40. On February 1st he had another chill. When seen the next day he still complained of vomiting; there was diminished resonance at the base of the left lung, with moist sounds as far as the upper lobe. Temperature, 100°; pulse, 106.

On February 5th he was admitted to Dr. Molson's ward, and the following is an abstract of the notes entered in the report for that day: He was somewhat breathless and had a frequent cough, with

<sup>1</sup> Read before the Montreal Medico-Chirurgical Society, April 1st, 1898.

scanty muco-purulent expectoration, and vomiting, chiefly of curdled milk. He made no complaint of any pain. Temperature, 99°, rising to 104.6° at 10 p.m., with chill; pulse, 80; respirations, 20-24. Nutrition fairly good; face flushed; skin hot; mucous membranes of good color; a greyish fur on the tongue; no œdema.

Examination of the lungs showed enfeeblement of the breath sounds in the left lower axilla, with fine crepitus, and behind dulness from the middle of the scapula to the base, with feeble breath sounds and fine râles at the end of inspiration. The sputum contained no tubercle bacilli or pneumococci. The cardiac impulse was felt but not seen in the fourth intercostal space half an inch inside the mamillary line. Relative cardiac dulness vertically at the upper border of the third costal cartilage, and laterally from the left sternal border 3½ inches to the left. There was accentuation of the pulmonary second sound, but there were no murmurs. Pulse regular, of good volume, but compressible. No thickening of the radials. Spleen dulness increased, but the splenic border not palpable. Liver dulness 5½ inches from the fifth rib in the right mamillary line. Urine.—High colored, smoky; sp. gr., 1010; alkaline, albuminous, and containing blood, blood casts and epithelial casts.

principal points in the diary of the case are as follows:

From February 5th to February 10th there were vomiting and a daily rise of temperature to nearly 105° F., with chill followed by sweating occurring between 10 p.m. and 4 a.m. On February 7th exploratory puncture over the base of the left lung with a negative result, and on the 11th a similar result from exploratory puncture of the liver in front. A blood examination for the plasmodium malarie was equally negative. On this day the vomiting was more frequent. The first sound of the heart was weak, and there was a distinct yellowish tint in the skin.

On February 14th I saw the patient for the first time. Since the 12th the temperature range had been lower and he had had no chills, but was still vomiting and felt very weak. The spleen was now distinctly palpable, the hepatic dulness within normal limits, and the first sound of the heart was very weak. I came to the conclusion from a study of the history of the case and by exclusion that the case was probably one of malignant endocarditis.

February 15th—Cultures were made from the blood drawn from a finger with a negative result.

February 17th—Vomiting less frequent. Tongue brown and dry. Temperature, 96-100.6. Cardiac dulness from the lower border of the second costal cartilage, and laterally from the left sternal border to

the mammillary line. A soft blowing systolic apical murmur, and a faint diastolic murmur in mitral area with accentuation of the pulmonary second sound. Spleen still further enlarged, and palpable to almost midway between the border of the ribs and the navel. Eye-grounds examined by Dr. Gardner and pronounced normal.

February 21st—More marked pallor of the face. Cardiac dulness as in previous note; first sound now quite audible at the apex, and diastolic murmur heard over mitral area. Typhoid serum reaction negative.

February 22nd—A further increase in area of cardiac dulness, both vertically and laterally. Apical systolic murmur again distinct and transmitted to axilla. Diastolic murmur now heard at the base and slightly down the left border of the sternum. The breath sounds were feeble at the base of the left lung, but there was now only very slight impairment of resonance.

February 26th—Vomiting more frequent, and retching when the stomach is empty. He was allowed only albumen water by the mouth, and was ordered nutrient enemata of peptonized milk and brandy, every three hours.

February 28th—Temperature curve during the last week very irregular, but lower than before. No chills. No longer retains albumen water and the vomitus is very watery and of a greenish color. Pallor increasing; cardiac condition unchanged.

On March 1st I took up the service in the wards, and, on re-examining the case, felt confirmed in the opinion already expressed. There was increasing pallor of skin and mucous membranes, with a very well marked lemon tint. Prostration was extreme and vomiting very distressing. The cardiac sounds now became almost inaudible at the apex, the diastolic murmur still being heard at the base and faintly over the sternum.

March 10th—Blood cultures from a vein at the bend of the right elbow were made, but showed no growth after forty-eight hours. The blood count on this day was: Hæm., 26 per cent. (Fleischl); erythrocytes, 1,880,000, and leucocytes 30,000 p. cub. mm. On the following day the count was: Hæm. 27 per cent.; erythrocytes, 1,760,000.

March 13th—During the last week the spleen had been diminishing in size and was not now palpable below the costal margin. Heart sounds very feeble, almost foetal in character. Urine still albuminous, with pus cells, and pus and epithelial casts.

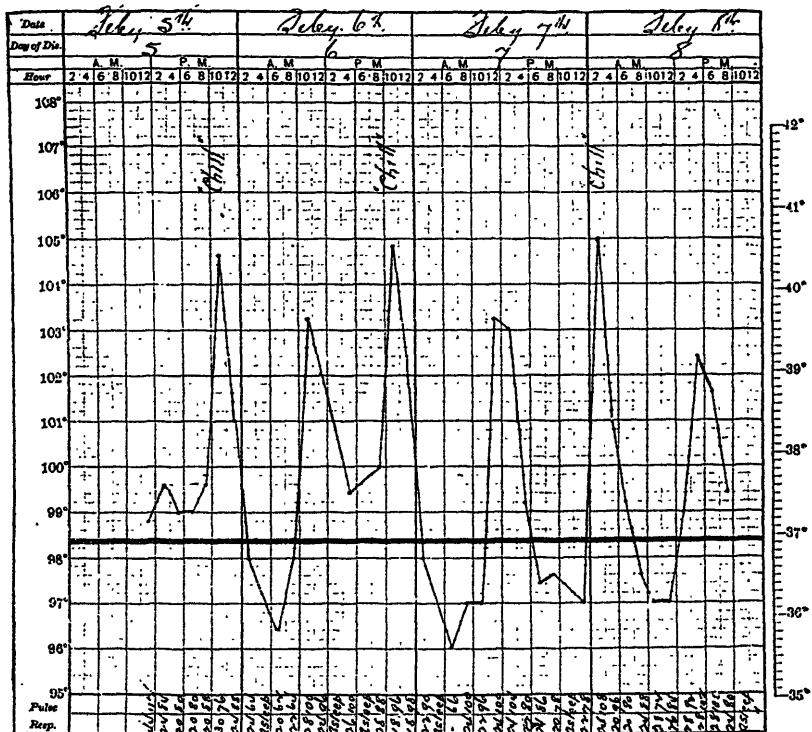
March 14th—Blood count: Hæm, 32 per cent.; erythrocytes, 2,480,000, and leucocytes, 104,000 p. cub. mm. This increase in the

erythrocytes was probably due to dehydration through repeated vomiting. The increase in the leucocytes was shown by stained specimens to be entirely in the polymorphonuclear forms, with at least relative decrease of the other varieties; such a condition as one finds in septic processes generally. No myelocytes were found. On this day there developed swelling and purplish discoloration of the ankles and left wrist, with extensive subcutaneous ecchymoses on the left forearm. Death occurred during the afternoon.

*Autopsy.*—The autopsy by Dr. Wyatt Johnston showed extensive soft vegetations with a slit-like acute ulceration in the mitral valve. The aortic valve showed old shrinking and fleshy vegetations, which had a slightly gritty feel. The spleen and kidneys showed acute swelling and a few old infarcts. In the heart muscles were numerous small white necrotic spots, not suppurating. The bone marrow was abundant, but free from suppuration. Diplococci, staining by Gram's method, were found microscopically in small numbers on the vegetations. Cultures in serum from the vegetations, and from the organs, remained sterile.

The point of chief interest is the absence of any embolic phenomena, with the exception of the acute nephritis with hæmaturia which occurred in the earlier part of the illness. The diagnosis was based more on the phenomena of general sepsis, associated with dilatation of the heart and cardiac murmurs of varying intensity and distribution. It is impossible to make any definite statement about the original illness which was the cause of the infective endocarditis, but on the whole it seemed to me that influenza was at least to be thought of in view of the signs, subjective and objective, in the respiratory organs both before and on admission to the hospital. There was no clinical evidence of a prior endocardial lesion. Apart from free stimulation the treatment was purely symptomatic. The idea of using anti-streptococcus serum was entertained, but was abandoned in the absence of any definite evidence that the infection was a streptococcal one.

On the opposite page is shown the temperature chart for the first four days after admission to hospital. This septic character continued during the first ten days.



## Clinical Reports.

### TUBERCULAR PERITONITIS,

BY

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#### **Tubercular Peritonitis—Abrupt Onset—Latent Pulmonary Tuberculosis—Laparotomy.**

The patient, a man of 42, was admitted to the hospital on February 7th, 1898, for pain and swelling in the abdomen. He stated that his health was always good up to last July, when he suffered with shortness of breath for two weeks. Toward the end of December he felt tired and unable to work. After a long drive on January 2nd, the following day he was feverish, and suffered from severe pain in the back. There was also pain in the right inguinal region, and pain and difficulty, but not undue frequency, of micturition. The abdomen became swollen on January 6th.

Pain has been present in the left side of the abdomen for about an hour whenever he takes much solid food, at times sharp and startling in character. He has lost 30 lbs. since July. Neither cough nor expectoration have ever been present.

The *family history* is negative as regards tuberculosis and cancer.

*Examination.*—He is a rather poorly nourished man, slightly anæmic, the temperature varying between 99° and 101°, the tongue coated, and the pulse 80. The abdomen slightly distended and the muscles rather tense. There is increased fullness on the left side below the ribs, and a gurgling sensation, but no clearly defined tumor. The note is dull in both flanks, especially the left, unaltered by change of position, and there is slight fluctuation over the tumor. At the right apex there is dullness both front and back, with fine crackling and sibilant râles: no cough or expectoration. The other organs are normal, and the urine is alkaline, contains a trace of albumen, and a heavy deposit of phosphates, but no pus.

The condition remained unchanged, slight fever being present, and on the 24th he was transferred to Dr. Armstrong's ward for laparotomy. The operation was performed on February 25th, when the intestinal coils were found much matted together by moderately firm adhesions. Numerous tubercles were scattered over the peritoneum, and small pockets of fluid were present on the left side. A good recovery from the operation ensued, the stitches being removed on the tenth day, and the patient was up on the 18th. The temperature continued elevated in the evening, but showed a rather lower average than before the operation, but with occasional rises to between 102 and 103. He left the hospital on March 9th, feeling in better health, free from abdominal pain, and his general condition somewhat improved.

In this case the diagnosis of tubercular peritonitis rested on an indefinite tumor in the abdomen, with fever, and on the presence of physical signs of tuberculosis at the apex of the lung.

#### **Miliary tuberculosis of peritoneum—Laparotomy—Subsequent involvement of pleuræ and pericardium.**

The patient, a woman about 21, domestic servant, was admitted to the hospital for abdominal swelling. She came to the city last fall, and had been gradually

losing flesh from the previous summer, going down from 124 to 106 lbs. between these periods. On January 23rd, 1898, she noticed slight abdominal swelling in the morning, and by evening she was unable to button her clothes. About the same time she began to suffer from night sweats, and was admitted to the hospital on February 6th. There was then some shortness of breath on exertion. There was at the time of her admission evidence of ascites and fever. A diagnosis of tubercular peritonitis was made, and Dr. Armstrong performed laparotomy and emptied the abdominal cavity of fluid on February 11th. The peritoneum was then studded thickly with tubercles. She continued, however, to have high temperatures, with evening exacerbations; the loss of flesh continued, and on February 24th she was transferred to the medical ward. The note made on this date states that the patient is much emaciated, the cheek bones are prominent, the face flushed, the muscles small, the sub-cutaneous fat scanty, and the skin normal. The abdomen is slightly distended, measuring 27½ inches, there is dullness in both flanks, changing with alteration of position, but no fluctuation. The breathing is slightly hurried, 24 to 28 per minute, no cough or expectoration. Expansion is deficient on the left side: there is dullness in the lower axilla and base behind to the fifth dorsal spine. The dullness in the axilla disappears on lying on the other side. There is distant blowing breathing over the dull area. Owing to the feeble voice, resonance and fremitus show no alteration. A loud grating pleural friction which had been heard a few days previously has disappeared.

On the right side there was dulness and a few crackling rales for a hand's breadth at the base posteriorly. The apex impulse was felt in the fourth space, somewhat feeble in spite of the thin chest wall. The cardiac dulness was triangular in form, beginning above at the third rib, its right border extending obliquely downwards and outwards to join the hepatic dulness at the fifth right rib, the lower part of the sternum and the fourth and fifth intercostal spaces to the right of the sternum being dull. The left border of the triangular area of dulness extended down from the third left rib to the apex and then blended with the dulness of the fluid in the pleural cavity. On sitting up in bed the line of cardiac dulness fell about a finger's breadth; the other organs are normal.

March 13th. The patient has gained somewhat in strength, but continues emaciated. The temperature ranged from 97 to 103, being higher at night.

The fluid in the left pleura has diminished, and a pleuro-pericardial friction is present along the left border of the heart.

March 25th. The patient is gaining flesh and strength, and is able to sit up daily in a chair. The fluid in the pleura has much diminished.

This case is clearly one of tuberculosis involving the serous sacs and without obvious disease of the viscera. On her admission the presence of fluid in the abdomen, high temperatures, and gradual loss of flesh preceding any local symptoms, and strong hereditary tendencies to tuberculosis, rendered the diagnosis clear. The later involvement of the three great thoracic serous membranes is undoubtedly of the same character. The physical examination indicates very clearly the signs produced by small quantities of fluid in the pericardial sac. Percussion gives us the earliest and most certain indications. Dulness of a roughly triangular form, extending obliquely down and out to the right of the sternum, and especially to the fifth right space (Rotch's sign) is the earliest sign of pericardial effusion. The presence of movable dulness can often be demonstrated as in this case, and is a further sign of much value. In this case the percussion dulness was readily made out owing to the thin chest wall. It is in stout



people that a pericardial effusion is most likely to be mistaken for cardiac enlargement. The prognosis in this case is extremely unfavorable. With such extensive disease an unfavorable prognosis must be given, and although a gain in strength has occurred, the continued fever shows the process to be still active. The improvement which is going on seems remarkable in the presence of the general involvement of the serous sacs. It seems highly improbable that laparotomy should influence the process in the pleuræ and pericardium, and it seems more rational to attribute the improvement to the natural tendency to arrest of the pathological process seen in many cases of tuberculosis.

## "OBITER SCRIPTA" I.

(Casual notes from the Medical Clinic of the Royal Victoria Hospital.)

BY

C. F. MARTIN, M.D.

Lecturer in Medicine, McGill University; Assistant Physician to the Royal Victoria Hospital.

(In the ensuing casual notes are embodied a few observations on cases which are of interest either in reference to diagnosis or treatment, or as presenting some instructive variations from the commoner so-called text-book types. It is hoped that while they offer no features of startling importance, there may at least be a few facts of interest to some readers of the JOURNAL.)

### SOME FORMS OF NEPHRITIS.

#### CASE I.

#### **Uræmia affecting a boy in previously good health—General and special diagnosis of the renal condition—Treatment.**

A boy, æt. 12, had been complaining for several weeks of intermittent headaches, occasionally quite intense, sometimes persisting throughout an entire day, at other times being quite absent for several days together. With this there was vomiting, usually at the time of the headache, and at all events quite independent of the ingestion of food. The vomitus had no special characters. Careful enquiry failed to elicit any other symptoms or complaints up to the day of his entering the hospital. There was no history of scarlatina or other infective disease since infancy, nor could exposure to cold or any other etiological factor be discerned to account for the condition present.

On admission he was very restless, held his hands to his head with the intense pains, and vomited several times on the first day. The temperature was normal, the pulse 104 and of very slightly increased tension, and the respirations were 24 per minute. There was a coated tongue, anorexia, marked thirst and constipation.

Edema and anæmia were conspicuous by their entire absence.

By a curious coincidence there lay in the adjoining bed a boy with cerebral tumour, in whom likewise the main symptoms had been merely headache and vomiting and the eye ground on examination had shown marked papillitis. The similitude of symptoms in the present case led at once to a retinal examination to complete the

classical trio of symptoms! It revealed, however, not the changes due to intracranial pressure, but a typical and far advanced albuminuric retinitis. The urine showed evidences likewise of distinct nephritis, being diminished in quantity, with  $1\frac{1}{2}$  grms. of albumen to the litre, 80 grains of urea in 24 hours, and having a specific gravity of 1012. There were numerous hyaline, granular and epithelial casts. The heart was slightly enlarged to the left and at the apex there was a soft systolic murmur. The aortic second sound was accentuated; the arteries showed no sclerosis. On the following day he developed unilateral convulsions and coma, and during the first 24 hours, only 11 ounces of urine were passed.

*Treatment.*—At the outset, saline purgatives and hypodermic injections of pilocarpine were freely administered, though with practically no effect, and on the next day he was given croton oil, which was speedily followed by satisfactory purgation. His restless, convulsed condition made it impossible to give vapour baths properly, so that hot wet packs (for 20 minutes at a time, and at intervals of from four to six hours) were employed, producing within 12 hours a remarkable relief, the patient being quieter, partly conscious, and showing distinct improvement in the pulse. During the first 24 hours, the packs were given five times, and from that on with diminishing frequency till after four days the patient was practically out of danger, perfectly conscious, with no convulsions, or even restlessness. The urine steadily increased in quantity, and three days later he passed a normal amount. Nine days after admission, merely a trace of albumen was left, the quantity being no longer estimable by Esbach's method. Throughout the rest of his stay in the hospital his condition progressively improved, and six weeks later he was discharged, the parents being given due precautions as to the treatment and diet, inasmuch as a trace of albumen or occasional casts were still present. It was also noteworthy that during this time the urine was much increased in quantity, being frequently over 50 or 60 ounces per diem.

*Remarks.*—The case presents several features of no little interest. While probably two-thirds or more of all cases of nephritis in childhood are associated with infectious diseases, and especially scarlatina, yet, as in the present instance, a small proportion have a distinctly obscure etiology. The question of diagnosis, so far as the general disease is concerned, presents in reality very little difficulty, and the similarity of symptoms to those in cerebral tumour is perhaps more striking in the present instance from the coincidence above referred to. Yet the complete absence of either oedema, dyspnoea or pallor, as well as the lack of any specific antecedent cause might all very

readily mislead; all the more so when the headache and vomiting formed so prominent a feature of the malady.

With respect to both diagnosis and treatment, the case well illustrates the importance of early retinal examination and the necessity of due regard for the condition of the urine where headaches persist without apparent cause.

It is still more difficult to decide the nature of the renal lesion, for it would seem that in children even more than in adults, one is never safe in predicting the gross appearances of a kidney unless the symptoms of the disease be most typical.

Is the present lesion to be considered as acute or chronic? To decide this absolutely would be a difficult task; certainly one would tend to believe that even though the granular kidney is extremely rare in children, the present symptoms pointed very much to that diagnosis. More especially may be mentioned the urine of low specific gravity persisting throughout the course of the disease, the markedly increased quantity when once recovery was established, the advanced albuminuric retinitis, which even under any condition is extremely rare in children, and lastly, the persistent thirst. In the light of such a diagnosis the ultimate outlook would be proportionately serious, these cases reaching a lethal termination in a much shorter period.

## CASE II.

### **Acute nephritis ushered in with symptoms simulating appendicitis**

The victim of this affection was a young man aged 26 years, whose illness was preceded by distinct exposure to cold. Following upon this was general malaise and a vague feeling of abdominal discomfort, nausea and vomiting. The bowels were constipated. On the next day the abdominal discomfort was more marked, and tenderness in the right iliac fossa pronounced.

An enema was administered, and after three hours the pain on pressure immediately outside McBurney's point was even more distinct. Palpation in this area revealed a finger-like body which was painful to pressure, and, so far as could be estimated, was the swollen appendix. The temperature was  $100.5^{\circ}$ . The pulse 96. On the next day, however, examination of the patient revealed but little tenderness in the affected area, even on deep pressure, while on the other hand the lumbar region became markedly painful. The temperature now reached  $101.5^{\circ}$ , but the general symptoms were no longer those of appendicitis, whereas the urine on examination revealed all the characters of an acute hemorrhagic nephritis. Repeated tests of

the blood serum for the Widal reaction were made, though with negative results. The patient had an uneventful though tedious convalescence to recovery.

### CASE III.

**Nephritis—ushering in enteric fever and remaining as a chronic affection (“Nephro-typhoid”)—Widal’s reaction positive.**

Such cases as this are perhaps not so very uncommon, and in our own clinic we have seen within the past two years at least three instances of the kind. In two of the patients the initial symptoms were so typical of acute nephritis as to entirely mask for the first two or three days the signs of enteric fever. The present malady affected a girl of 16 years who had already passed through a severe attack of subacute nephritis two years previously, and had not been heard of till February of 1898, when she requested admission to the wards, presenting all the signs of acute renal disease, viz., dropsy of the eyelids and all extremities, pain in the back, vomiting, blurred vision, diminished quantity of urine containing blood, casts, etc., all of which symptoms supervened on exposure to cold.

The temperature was 101° and the pulse 98

The heart was not definitely enlarged, but the aortic second sound was high pitched and ringing. The arteries were not sclerosed. The urine had all the characters of an acute hemorrhagic nephritis.

Examination of the abdomen during the first two or three days revealed an enlarged spleen to percussion though the organ was not palpable owing to marked rigidity. Later on it could easily be felt, and remained enlarged for several weeks. The temperature likewise assumed a high remittent type, and Widal’s test of the blood serum was then made, giving on the sixth day after admission a positive reaction.

No spots developed at any time during the course of the disease. The progress of the case so far as the enteric fever is concerned was one of uninterrupted recovery, while on the other hand the renal condition has assumed more the character of a chronic parenchymatous nephritis with secondary shrinkage.

## Notes on Treatment.

UNDER THIS HEADING ARE INCLUDED BOTH ORIGINAL SUGGESTIONS AND THE ENDORSATION OF METHODS ALREADY PUBLISHED.

### **The Use of Douching after Parturition.**

The practice of giving vaginal douches immediately after the completion of the third stage of labour and at intervals during the puerperium has been practically abandoned during recent years, except in some of the large maternity hospitals. Thus, the data collected by Jewett show that in New York, in the Maternity Hospital, the Lying-in Hospital, and the Polyclinic, in Philadelphia, in the Preston Retreat, and in Boston, in the Lying-in Hospital, vaginal douches (usually of bi-chloride) are used before and immediately after the completion of the third stage. In private practice, such men as Edgar, of New York ; Hirst, of Philadelphia ; Jewett, of Brooklyn, and Etheridge, of Chicago, do not employ ante-partum or post-partum douching except for cause. Leopold, of Dresden, collected statistics of upwards of 10,000 cases, and in two-fifths of these, where no douches were used, the fever-free puerperiums averaged 95 per cent., while in the remaining three-fifths that received douches the fever-free puerperiums averaged between 78 and 87 per cent.

Clinical experience and experimental research result in the following practical conclusions :

Ante-partum vaginal douching is not indicated unless there is evidence of abnormal vaginal secretions nor is post-partum douching called for unless intra-uterine operations have been undertaken.

*D. J. Evans.*

### **Impetigo Contagiosa.**

The following method of treatment has yielded uniform good results in the dermatological clinic of the Montreal General Hospital during the last ten years or more.

The crusts of dried pus and serous exudation are picked off the patches of impetigo (in some cases it is necessary to soften them previously with a little sweet oil) and an ointment of the ammonio-chloride of mercury applied directly to the raw surface.

The strength of the ointment varies from the pure unguentum hydrargyrum ammoniatum (B. Ph.) to equal parts of this and unguentum simplex, the latter being used for very young children.

That this preparation of mercury can be used without the slightest

danger of causing irritation has been abundantly proved by a long experience of a large number of cases, and that it is also a specific in this disease the records of the hospital show, as, with few exceptions, a week or ten days effects a complete cure.

*F. J. Shepherd.*

### **Acne Vulgaris.**

As an alternative form of treatment in this troublesome disease, the following can be strongly recommended.

Direct the patient to carry out the usual course of shampooing the face with water, as hot as can be borne, and some bland un-irritating soap, and then, after carefully drying the skin, to apply the following lotion once a day :

Hydrargyrum bi-chloridi . . . . . gr. xii  
 Spiritus vini recti . . . . . ʒ vi

The effect for the first few days will be, possibly, to render the condition worse and make the part hyperæmic, but after this the lotion causes no discomfort and prevents the formation of pustules.

*G. Gordon Campbell.*

### **Dysmenorrhœa in Young Girls.**

The following method of treatment will be found very serviceable for that class of cases in which the flow is ushered in by severe cramp-like pains, and in which one does not feel justified in proposing a vaginal examination or local treatment of the generative organs.

For three or four days preceding the onset of menstruation give half-drachm doses of the fluid extract of viburnum prunifolium in hot water three times a day. On the morning of the expected period give a full dose of magnesium sulphate to procure a large fluid motion of the bowels, and, if the pain comes on in spite of this, five grain doses of antipyrin repeated every two hours for three doses, if necessary, will often relieve it. Any other of the latter class of remedies can, of course, be used in place of the one named.

*Arthur A. Browne.*

# RETROSPECT OF CURRENT LITERATURE.

## Medicine.

UNDER THE CHARGE OF JAMES STEWART.

### Cardiac Hypertrophy in Arterio Sclerosis.

DR. ARTHUR HASENFELD. "Ueber die Herzhypertrophie bei Arterio Sclerose."—*Deutsches Archiv. für Klinische Medicin*, December 9th, 1897.

Dr. Hasenfeld's observations on this subject have been summarized in the following conclusions :

1. In a physiological degree one finds in the splenic, the mesenteric and in the hepatic arteries a slight increase of fibrous tissue in the intima.

2. Arteriosclerosis of the abdominal (splanchnic) vessels is very slight,—only on microscopical examination at all frequent. Marked or advanced sclerotic degeneration, on the contrary, is much rarer than in the aorta, the vessels of the extremities and of the brain.

3. The sclerotic changes are generally most advanced in the main trunk of the abdominal aorta, and decrease in the branches.

4. Arteriosclerosis leads to an hypertrophy of the left ventricle only when the abdominal system or the aorta above the diaphragm is much involved. The changes in the other vessels do not seem to exert this influence.

5. In the cases of contracted kidney examined, the whole heart segment was found hypertrophied. If at the same time the splanchnic vessels were highly sclerotic, the hypertrophy of the left ventricle predominated. The same result may be seen in extreme sclerosis of the aorta. Should the diseased kidney be found without or even with a slight degeneration of the splanchnic vessels, the whole heart would be uniformly hypertrophied.

6. Should further investigation verify the uniform hypertrophy of the whole heart segment, it would appear that the contracted kidney increased the work of both sides of the heart, and probably also the heart's activity.



**Albuminuria in Life Insurance.**

BRANDRETH SYMOND, A.M., M.D. "Albuminuria in Life Insurance."  
—*The American Journal of the Medical Sciences*, April, 1898.

Dr. Symond's position as medical examiner of the Mutual Life Insurance Company, of New York, is a pledge of authority, and his article on this subject is at once pointed and practical. Albuminuria includes only two proteids, serum-albumin and serum globulin, in solution in the urine. They are always present together. The most common cause of error is the presence of nucleo-proteid.

Dr. Symond says "he does not know of a single test which is an infallible indicator of albumin." He employs two tests in combination. Acidulation with acetic acid is followed by boiling the upper layer of the urine in the test tube. A slight opacity, when seen against a dark background, is regarded as a positive result in what the writer speaks of as his delicate test. If this test be negative it is conclusive. If a reaction does take place a few drops of nitric acid are added, and if the opacity does not disappear entirely either albumin or nucleo-proteid is present.

Dr. Symonds resorts to Heller's test to differentiate between these two. He counsels letting the urine stand for twenty or thirty minutes after the contact to make sure of the reaction. The ferrocyanide of potassium test, this examiner sometimes uses instead of boiling, but he always checks results with Heller's test.

Clinically albuminuria is divided into two classes, temporary and permanent.

The temporary cases are organic and functional.

The functional cases may be doubted, while examples of transient organic cases are afforded by acute nephritis.

Dr. Symonds divides the class termed functional into several varieties, *e.g.* :

1. The cyclical variety, those in whose urine no albumin can be found in the morning, but who later in the day pass urine containing albumin.

2. The dietetic variety, those in whom certain foods cause albumin to appear in the urine.

3. The muscular variety, those showing albuminuria after severe exercise.

Then there is the albuminuria of adolescence, the albuminuria of old age, said to be due to the irritation of concentrated urine, and that following influenza and ordinary colds.

All albuminuria is to be regarded as pathological.

The prognosis for evil in all cases is in proportion to the length of time, the continuous existence of albuminuria, the presence of tubercasts, the persistence of a low specific gravity, the presence of an accentuated aortic second sound, the accompanying headache, the age of the patient, the weight of the applicant and his habits with respect to alcoholic drink.

Dr. Symonds does not favour the suggestion that all applicants with albuminuria should be insured at an extra premium so as to secure the company against loss, for he recognizes the injustice which would thus be done to those who are the subjects of transient albuminuria.

### **The Relapse of Typhoid Fever.**

E. BERTRAM HUNT. "The relapse of typhoid fever."—*The Practitioner*, March, 1898.

Dr. Hunt reports 40 per cent. of cases showing a relapse in a group of 71 cases recently treated in University College Hospital. This is very high. Two cases show double relapse, and in one three successive relapses occurred. An attempt is made in this article to establish a clearer understanding of the application of the terms "relapse," "recrudescence," and "intercurrent relapse." That confusion arises in the application of these terms all readers must admit, and Dr. Hunt's teaching is reasonable and clear, and if followed would do away with misunderstanding in this connection. The chief point is emphasized, when he says that, a relapse may occur without any interval clearly defined between the primary attack and the relapse. It is a repetition of the morbid process. This repetition produces a re-establishment of some or of all the clinical features of the case. He does not agree with Murchison and Dreschfeld who do not recognise a relapse before convalescence from the first attack is fairly established.

In support of this position he quotes 4 cases described by Irvine, 11 cases seen by Shattuck, and further remarks that Fagge, Osler, Chantemesse and others recognize that such cases are true relapses. They may be termed intercurrent relapses. Of the 28 cases of relapse reviewed by Hunt, 15 occurred before the temperature reached the normal, hence 15 cases showing "intercurrent relapse." Eleven cases showed the relapse after an apyretic interval. In two cases the intercurrent relapse was followed by a period of apyrexia—and a second relapse. In this analysis a reason for the high percentage of relapses may be found—many other observers not reckoning these *intercurrent* temperature elevations as relapses.

During only one recurrent relapse was an opportunity afforded for

a post-mortem examination. This revealed both recent and old intestinal ulceration.

The average duration of intercurrent relapses was 16 days.

Those cases in which during convalescence the temperature rises and remains up for a few hours or days, should be called cases of "recrudescence" or "after fever" or "false relapse."

The average of the other eleven cases was eight days. Of the 28 cases three died.

Generally the relapses resemble the primary attack, but are milder and symptoms appear earlier.

Contrary to Maclagan's view relapses were more frequent in cases of diarrhoea; 5 only occurred with constipation, while 16 were in diarrhoeal cases.

The second part of Maclagan's view, viz., that the relapse is due to an infection from the cast-off sloughs can hardly explain the relapses in the fourth week, for Dr. Hunt claims that re-infection must have taken place in the second week before the period of sloughing.

The fact that a real invasion of the intestinal and mesenteric glands by typhoid bacilli takes place is rather opposed to the explanation of the relapse by reabsorption of toxins alone.

Chantemesse, believing that the bacilli of typhoid are not promptly gotten rid of, in any case, explains relapses by a fresh growth of these, but of what causes these fresh growths we are still ignorant. They may be determined by degree of immunity induced by the primary attack.

### Nervous Dyspepsia.

DR. TH. ROSENHEIM. "Ueber nervöse Dyspepsie."—*Berliner Klinische Wochenschrift*, Nos. 42, 43, 44, 1897.

Dr. Rosenheim's paper on this subject, read before the International Congress at Moscow last year, contains much of interest. His conclusions found at the end of his article are thus freely translated:

1. Nervous dyspepsia is an independent type of disease according to Leube. It is principally a neurosis of sensation to be distinguished from hyperaesthesia of other forms by the continued activity of the digestive process. It resembles especially the various forms of gastritis, but only in a moderate degree.

2. The motor and secretory functions of the stomach may show in nervous dyspepsia a departure from the normal. Anacidity, subacidity, superacidity, diminished gastric juice, increased motility, and atony are frequently enough demonstrated. The state frequently changes, and these examination results are significant of the condition.

If the functional anomaly is very pronounced, and if it is chronically manifest, one generally has ground to consider that instead of nervous dyspepsia another affection is present. This, *i. e.*, some other form of disease as gastritis, or motor insufficiency, may develop during an attack of nervous dyspepsia and assume a more important aspect than the original disease.

3. Nervous dyspepsia, according to Rosenheim, is not so common a disease as is generally supposed. It appears that dyspeptic manifestations in nervous individuals have been superficially termed nervous, hence, nervous dyspepsia.

4. Nervous dyspepsia as we have defined it, is found or exists in a great majority of cases alongside of nervous symptoms, which have offered a lighter or a more pronounced clinical picture of neurasthenia, yet rarely of hysteria. That nervous dyspepsia is always only a manifestation of neurasthenia is an untenable statement. The other nervous disturbances are frequently dependent upon the stomach and disappear, if one succeeds in favourably influencing that organ.

5. In nervous dyspepsia, symptomatic treatment of the stomach may be of great service, although only a therapy which has regard to the general condition and pathogenesis is of decided importance.

W. F. Hamilton.

# Surgery.

UNDER THE CHARGE OF GEORGE E. ARMSTRONG.

## Cancer of the Tongue.

**BUTLIN.**—The Hunterian Lecture on what Operation can do for Cancer of the Tongue.

Mr. Butlin first emphasizes the importance of early operation by dividing his cases into two groups—hospital cases and private cases. The first group includes fifty-three and the second forty-nine cases. He has been able to trace all but seven, although some of them were operated upon thirteen or fourteen years ago. He finds his results to be as follows :

### *Hospital cases—*

Died of operation.....	9
Lost sight of.....	7
Recurrence in situ.....	8
Affection of glands without recurrence....	16
Died later, cause unknown.....	4
Well within three years after operation....	2
Well more than three years after operation	7

—  
Total, 53

### *Private cases—*

Died of operation.....	1
Recurrence in situ.....	10
Affection of glands without recurrence....	12
Died of other causes than cancer of tongue within three years.....	4
Well within three years after operation...	9
Well or died of other causes more than three years after operation.....	13

—  
Total, 49

The above tables illustrate the advantage of early operation, and admirably illustrate the justice of the claim which surgeons have made in regard to cancer operations, that they would be able to show better results if they had the cases earlier for operation. Cancer of

the tongue is generally noticed by educated, refined people in an early stage, and they seldom consult their medical adviser for the first time, with that extensive, foul, fungating mass, only too often seen among hospital patients. Especially is this the case where the cancer is situated at the anterior part of the border or dorsum of the tongue. Operation for cancer in this situation gives the best results.

Is removal of the entire tongue necessary in every case ?

Mr. Butlin is of the opinion that it is not, and but few can speak with greater authority. The whole tongue was removed in only one of his successful cases, whether in hospital or private practice, and not in one of the patients who are still active and free from recurrence between one and three years after operation. This is very important testimony. The operation for removal of the whole tongue is more dangerous. The patient is cruelly maimed ; his speech is very defective ; he has difficulty in taking solid food ; he suffers from the collection of mucus and saliva in the mouth ; and, if his occupation depends on speech even in a moderate degree, he is forced to abandon it. The conditions which obtain here are totally different from those surrounding the question of removal of a whole or a part of the breast.

In cases where the disease is near the tip, Mr. Butlin would remove the forepart of the tongue.

Another point insisted upon is the thorough and complete removal of the lymphatic glands in all cases. The groups of glands liable to infection are the submental, submaxillary, carotid and parotid.

Whether it is better practice to remove these at the same time that the tongue is removed or a fortnight later may be a debatable question.

# Obstetrics and Diseases of Infants.

UNDER THE CHARGE OF J. C. CAMERON.

## The Influence of Morphia and Ether Upon Uterine Activity.

DR. H. HENSEN. "Ueber den Einfluss des Morphiuns und des Aethers auf die Weenthätigkeit des Uterus."—*Archiv. für Gynäkologie*, Bd. 55, Hft. 1, S. 129.

Investigations on the influence of drugs upon uterine activity have hitherto been almost exclusively confined to chloroform and ergot. The decision of the question as to whether chloroform may or should be used in ordinary labors depends in great measure upon our being able to determine whether it has an injurious effect upon the activity of the labor-pains or not. Most recent writers claim that it has. Hensen has carried out a series of investigations upon the action of morphia and ether in Prof. Werth's wards in Kiel. A modification of Schatz's apparatus was employed, somewhat similar to that used by Dölnhoff for his investigations on the action of chloroform, by Klikowitsch on nitrous oxide, and Acconei on chloroform, chloral, cocain, quinine and ergot. After a minute description of his experiments, illustrated by a number of diagrams, he draws the following conclusions:

1. Morphia in doses of 0.5 to 2 eg. ( $\frac{1}{15}$  to  $\frac{4}{15}$  gr.) have no effect upon the activity of the pains and abdominal pressure.

2. Ether after 1 to 2 minutes markedly weakens uterine effort, by diminishing the volume (die grösse) of the pains and lengthening the intervals.

- 3 After discontinuance of the ether, the uterine activity returns in to 0 minutes.

4. Abdominal pressure is suspended during ether-narcosis.

The practical bearings of these observations are evident. Dölnhoff found that uterine contractions become weaker during chloroform narcosis, and do not regain their force and efficiency for some time, even as

long as two hours. It seems, therefore, that ether has an important advantage over chloroform as an anæsthetic for obstetric operations, from the fact that uterine activity returns more quickly. Atony of the uterus in the third stage of labor not uncommonly follows prolonged chloroform anæsthesia for some obstetrical operation, and hemorrhage is the result. It would seem, therefore, that ether is safer than chloroform when the anæsthesia is likely to be prolonged, when there is fear of hemorrhage, or when there is tendency to uterine inertia.

### The High Forceps Operation in Contraction of the Pelvis.

DR. S. TÓTH. "Ueber die Anwendung der hohen Zange mit besonderer Rücksicht auf das enge Becken."—*Archiv. für Gynäkologie*, Bd. 55, Hft 1, S. 12.

Dr. Tóth, who is Prof. Tauffer's assistant in the University Obstetrical Clinic at Budapest, gives a minute and careful report of the forceps operations there during the past 15 years. In 7,775 cases there were 155 forceps deliveries (1.9 per cent.): the high operation was performed 44 times, and in 34 cases attempts were made to deliver with the axis-traction forceps but without success. The high forceps operations are considered in three groups: (1) those in normal pelves, (2) those in contracted pelves, and (3) unsuccessful attempts to deliver.

Not only are full reports of the cases given, but a large number of tables have been prepared which facilitate the comparison of the cases with one another and enable some idea to be formed of the results in Budapest as compared with those obtained in other institutions.

Symphysiotomy has been done but once, and then unsuccessfully. The high forceps operation seems to be pitted against version and perforation, with C. Section as a *dernier resort*. Axis-traction forceps after the models of Tarnier, Breus, Olshausen and Nægele were used. Those of Olshausen and Nægele were found to be too large and heavy; moreover, the line of traction was not in the pelvic axis in high operations. A better instrument is the Breus forceps, but the blades are harder to apply and are apt to slip; altogether it is not as safe and certain an instrument for the high operation as that of Tarnier. The Tarnier forceps have been in use since 1889 and have given entire satisfaction.

The following table is interesting, especially for purposes of comparison. It is tolerably certain that symphysiotomy would have been



done on this side of the Atlantic at least in those eight cases where unsuccessful attempts were made with forceps, and a fair proportion of the children would have been saved.

	No. of Deliveries.	Completed Operations.		Unsuccessful Attempts.	Total.
		Living Children.	Dead Children.		
In pelves with conj. diag. over 11 cm.....	3	3	..	..	3
In pelves with conj. diag. 10.5 to 11 cm.....	8	7	1	2	10
In pelves with conj. diag. 10.1 to 10.5 cm.....	5	5	..	2	7
In pelves with conj. diag. 10. cm.....	2	2	..	4	6
In pelves with conj. diag. undetermined.....	6	4	2	..	6
	24	21	3	8	32

The author's conclusions are as follows :

1. The high forceps operation is not so dangerous for mother or child as it is often said to be ; on the contrary, it is undeniably more favorable for both than version, especially podalic version in head presentations.

2. In all cases where the head remains high up, and labor must be terminated in the interests of the mother, and when the suitable time and conditions for version have passed, the high forceps operation should be tried in preference to perforation of the living child.

3. In all cases of pelvic contraction of the first degree (c. d. over 10.5 cm.), and even of the second degree (c. d. under 10.5 cm.) when the measurements are near the upper limit, the high forceps operation is preferable to prophylactic version, as there will be longer delay before operating, thus affording a chance for spontaneous delivery to occur. The same principle should guide us in the management of cases where undue development of the foetus causes a relative disproportion.

4. In cases in which the high forceps operation fails, perforation should be done without further delay. In favorable conditions, symphysiotomy may be taken into consideration, but podalic version is contraindicated.

5. While the high operation may be performed with different models of forceps, provided they are long enough, the Tarnier instrument is preferable to all others for this operation.

### The Effect of Amputation of the Cervix upon Pregnancy and Labor.

DR. J. L. AUDEBERT. "Etude sur la grossesse et l'accouchement après l'amputation du col."—*Annales de Gynécologie et d'Obstétrique*. Jan., 1898, p. 20.

For some time the after effects of Alexander's operation and hysteropexia have been the subject of lively discussion; but comparatively little attention has been paid to the accidents which may occur in pregnancy following a partial or total amputation of the cervix. Does Schröder's operation, for example, alter the course of a subsequent pregnancy? Is abortion or premature labor more apt to occur? Is dilatation of the cervix rendered more difficult? The prevailing opinion seems to be that no ill effects follow amputation. Pozzi says that dilatability of the cervix is not compromised and that there is nothing to fear from sterility or dystocia. Nevertheless, cases have been observed from time to time which cast doubt upon such a favorable opinion. In 1895 Audebert had a case of severe dystocia following a Schröder operation, and shortly afterward saw one in which abortion occurred three times in succession after amputation of the cervix. Pinard has called attention to the frequency with which abortion follows hysteropexia and operations on the cervix. Audebert has collected and reported at length 16 cases in which pregnancy has followed amputation of the cervix. He considers the influence of the operation upon (1) the duration and evolution of pregnancy, and (2) the course of labor.

These 16 women before amputation of the cervix had a total of 27 pregnancies, and after operation a total of 24 pregnancies. The results may be tabulated for comparison as follows:

	Before Amputation.	After Amputation.
Abortions (before 7th month).....	2	10
Delivery before term (after 7th month).....	3	9
Delivery at term.....	22	5
	27	24

From these figures it is evident that the tendency to abort is much increased by the operation.

In most of the cases the course of labour was regular, the uterine contractions were normal, and dilatation was effected without marked delay or unusual pain. In 4 cases there was marked dystocia.

Premature rupture of the membranes occurred 10 times in 15 confinements. This accident seems to determine the frequency of abortion and premature labour. In 4 cases of abortion there was retention of the placenta, followed by hæmorrhage and septic infection. In the 4 cases of dystocia, the presence of cicatricial tissue prevented normal dilatation. In one case, a fibro-cicatricial ring absolutely undilatable necessitated bilateral incision and forceps delivery. In another case, labour lasted 4 days, and delivery was ultimately effected by a difficult basiotripsy through a tough imperfectly dilated ring which had resisted the action of a Champetier-de-Ribes bag.

The author concludes that amputation of the cervix exercises a marked influence.

1. Upon the *duration* of subsequent pregnancies, causing increased frequency of abortion and premature labour.

2. Upon the course of labour (*a*) by favouring premature rupture of the membranes, (*b*) by causing cicatricial contractions of the cervix, which interfere with dilatation.

With regard to treatment, precautions should be taken to prevent premature delivery. In the early months, fatigue and exertion should be avoided, and in the latter months complete repose should be enjoined, as standing and walking favour the descent of the presenting part upon the cervix and frequently lead to premature rupture of the membranes. In cases of dystocia from cicatricial rings or bands, incisions more or less deep, according to the circumstances of the case followed by forceps delivery, give the most satisfactory results.

#### **The Intra-Uterine Use of the Champetier-de-Ribes Bag.**

DR. F. KLEINHANS. "Lur intrauterinen Anwendung des Kolpeurynters."—*Monatsschrift für Geburtshülfe und Gynäkologie*.—Feb., 1898, s. 167.

Of late years the intrauterine use of the colpeurynter for the quick and bloodless dilatation of the cervix and os uteri has become more general. The collapsed bag is introduced into the cervical canal or uterine cavity and is then distended. If it is simply allowed to remain there, it acts primarily by exciting uterine contractions and only secondarily as a dilator, its efficiency and the rapidity of its action as a dilator depending upon the force and frequency of the uterine contractions which its presence sets up. If, however, traction is made upon the bag, it acts primarily as a dilator, and the rapidity of the dilatation will depend upon the amount of tractile force applied. The author recommends colpeurynter with constant traction

(*metrorrhysis*) and reports 7 cases. A continuous pull is secured by attaching weights to the end of the tube by which the bag is filled, and allowing them to hang over the end of the bed. A sort of extension apparatus may be rigged up for the purpose. With regard to the question whether the amniotic sac should be ruptured or not before the introduction of the colpenrynter, the author is inclined to keep the sac unruptured as long as possible. He prefers a bag made of inelastic material, such as that of Champetier-de-Ribes, to the elastic rubber bags of Barnes and others. He concludes that intra-uterine dilatation is valuable (1) in the artificial induction of premature labor, as no other method acts so quickly and certainly, and (2) in eclampsia during pregnancy, as in no other way can delivery be effected so rapidly. For the induction of abortion, it is less useful, because the measures employed to dilate the cervix enough to permit the introduction of the bag, are generally sufficient to secure the emptying of the uterus. In pathological changes of the uterus, it should not be used, for it may convert short pains into weak ones.

J. C. Cameron.

# Pharmacology and Therapeutics.

UNDER THE CHARGE OF A. D. BLACKADER.

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## On Anæsthesia and Anæsthetics.

WALLER, A. D. "The action of anæsthetics upon nerve: ether and chloroform."—*The British Medical Journal*, November, 1897.

In this very interesting paper, read at the Montreal meeting of the British Medical Association, Dr. Waller gives an account, illustrated by demonstrations and diagrams, of the action of anæsthetics upon nerve tissue. As the result of his observations, he concludes that the efficacy of a compound in the chloro-methane group is not so much due to the number of atoms of Cl it contains, but rather to the position of the Cl in the molecule. Chloroform, he estimates from his experiments, to be seven times as powerful as ether. Methylene ( $\text{CH}_2\text{Cl}_2$ ), which is difficult to prepare and keep, and ethylene and ethyline chlorides, he does not consider will ever hold a place in practice in preference to either ether or chloroform. The action of carbon dioxide he considers as adjuvant rather than as antagonistic to the anæsthetic effects of chloroform, and, therefore, impeded respiration is probably less dangerous at the outset than during the subsequent period of chloroform administration. He considers Lauder Brunton mistaken when he says that chloroform vapour, pure and simple, is not nearly so dangerous as chloroform vapour with carbonic acid; his own observations distinctly oppose this statement. In practice he thinks that it is not the accumulation of carbon dioxide by impeded respiration that is to be dreaded, it is the accumulation of chloroform itself. He says: "A properly anæsthetised patient is substantially a reservoir, within which it is required to maintain the chloroform or ether at some unknown optimum percentage and quantity. This percentage and the absolute quantity of chloroform or ether in his body are the resultants of the stream into his lungs and of the stream out of his lungs, and experience alone, not measurements, enables you to adjust the stream into his lungs so that the quantity within the reservoir shall not fluctuate above or below the unknown optimum value. As chloroform is seven times as powerful as ether, it is clear we require a far more voluminous ingoing stream of ether than of chloroform vapour in order to reach an optimum quantity, and it is equally

clear, that the chance of accidental fluctuation above the limits of the optimum, will be far greater in the case of chloroform than in that of ether." Considering, on the authority of Snow and Bert, that the lethal quantity of chloroform is double the full anæsthetic quantity, he infers that a patient is not able to hold safely at any one moment in his body more than 2 ccm. of chloroform. An amount that can be very easily exceeded if we attempt to obstruct respiration by covering the mouth and nose with a towel holding an unknown quantity of chloroform. While Dr. Waller does not oppose the use of chloroform altogether, he expresses himself as greatly astonished that, in the face of the clinical experience of the past fifty years, chloroform, notwithstanding its superior convenience, should still be frequently employed for the purposes of minor surgery. Chloroform, he thinks, should be regarded as a dangerous reagent, only to be used on serious grounds, and not to be employed as a routine drug in all kinds of cases.

With regard to the employment of the A. C. E. mixture, Dr. Waller's position is not so clear. He states that he at first regarded it as an attenuated and rather uncertain kind of chloroform, but later on says that he does not wish at the present to commit himself too absolutely to a statement that the alcohol and ether are physiologically negligible.

Surgeon Colonel Lawrie, in replying to Dr. Waller, emphasized the necessity of maintaining the regularity of the breathing during the administration of chloroform. Should the patient struggle or hold his breath, the chloroform cap or apparatus must at once be removed from the face so as to prevent the smallest possibility of his gasping in an overdose.

GARDNER, BELLAMY. "The continued administration of nitrous oxide gas and oxygen during minor surgical operations."—*The Lancet*, June 12, 1897.

KEMP, GEORGE T. "Nitrous Oxide Anæsthesia."—*The British Medical Journal*, November 20, 1897.

PATERSON, HERBERT, J. "On the use of nitrous oxide gas for prolonged operations."—*The British Medical Journal*, January 22, 1898.

The view has long been held and widely taught that nitrous oxide produced anæsthesia simply by depriving the patient of oxygen. After the careful experiments by Dr. Kemp there would appear to be no escape from the conclusion that nitrous oxide is a true anæsthetic, and that it produces anæsthesia apart from depriving the animal of oxygen, and differs from nitrogen, which does not appear to possess any true anæsthetic properties.

Mr. Gardner, in a previous paper, called attention to the value of a mixture of nitrous oxide gas with 10 or 15 per cent. of oxygen for many of the operations of minor surgery, asserting that deep and even anaesthesia can be maintained for a sufficient length of time to perform small operations, such as the opening and scraping out of an abscess, the removal of post-nasal adenoid growths, the movement of stiff joints and breaking down of adhesions. In one instance he administered his mixture during an operation, lasting fourteen minutes, for excision of a varicocele.

Paterson states that during the past two years he has frequently administered nitrous oxide gas and air, and also gas mixed with oxygen, in preference to ether for long operations with, in most cases, satisfactory results. The long prevalent idea that it is dangerous or injurious to prolong nitrous oxide anaesthesia is not, he thinks, supported by facts. He says that he has given pure gas with occasional breaths of air for periods of over ten minutes in nearly 200 cases, the longest administration in the series lasting fifty minutes, without the occurrence of any disquieting symptoms. The patients recover quickly and no bad after effects ensue. Nitrous oxide mixed with oxygen proved, however, a much superior anaesthetic. This latter mixture he has employed in 150 cases, maintaining anaesthesia for periods varying from 15 to 65 minutes during operations for radical cure of hernia, Symes amputation, trephining of long bones, &c. Absolutely quiet anaesthesia was not always obtained, but Paterson thinks that with more experience it might be. All persons are not equally good subjects. Heavy smokers and heavy drinkers often struggle violently at first, but after four or five minutes settle down and take it fairly well. Children as a rule take it well. The youngest patient to whom he administered it was under two years, and even anaesthesia was maintained for fifteen minutes. Dr. Paterson regards the mixture as by far our safest anaesthetic, meriting an extended trial both in minor and major operations.

SILK, FRED. W. "On the diagnosis and treatment of the early stages of over-narcosis during anaesthesia."—*Treatment*, January 27, 1898.

Unfortunately there is no means of ensuring absolute safety during the administration of anaesthetics, but in proportion as we are vigilant, adopt proper prophylactic measures, and are judicious in the selection of the anaesthetic, the risks are diminished. From a clinical standpoint a practical and simple classification of the symptoms of over-narcosis would be as follows:

1. Over stimulation, occasionally met with during administration of ether in fat or emphysematous patients especially if much blood is being lost. The earliest indications are rapid, shallow, noisy breathing; quick, feeble pulse; dilated pupils; rapid accumulation of mucus with consequent lividity, which may become very intense. The condition may arise as an after effect.

2. Symptoms in which *cardiac failure* is the most prominent feature. Seen most frequently in the earlier stages and in young anæmic people. The earliest indications are pallor, the pulse gradually becoming imperceptible, the pupils slowly dilating, and the respirations unaltered at first, but gradually failing. It is not easy to distinguish this condition from one of superficial anæsthesia, in which the symptoms are premonitory of vomiting; in these latter cases, however, the respirations are seldom absolutely abolished, though they may become very faint; the occurrence of retching, too, will satisfy us that we have not to deal with a case of over-narcosis.

3. Symptoms in which *respiratory failure* is the most prominent symptom. A condition of the mid-stages of anæsthesia. Respirations early affected, feeble and shallow; pallor, and often slight lividity of the ashy-grey type; pulse only falling slowly; pupils gradually dilating. This may end in a condition not distinguishable from the following.

4. Sudden over-narcosis. Simultaneous, or almost simultaneous, cardiac and respiratory failure; more or less lividity; rapid and extreme dilation of the pupil; facies hippocratica.

In over stimulation we have to deal with a condition sharply separated from the three following. In this condition if simple withdrawal of the anæsthetic has little effect, it is necessary at once to secure patency of the air way, by raising the jaw, opening the mouth and pulling forward the tongue. The mucus should be removed by means of soft sponges. The patient should be turned on his right side, and if there is much lividity oxygen should be administered. After the patient has been put back to bed the nurse or attendant should not leave the bedside for some time.

In all cases which come or seem likely to come under any of the other divisions, the routine to be recommended is as follows:

(a) Secure a free air-way by turning the head well to one side, pushing forward the lower jaw, opening the mouth, pulling forward the tongue, passing the finger to the back of the throat and raising the epiglottis and base of the tongue; if necessary, mucus, etc., must be removed with sponges.

(b) If there is no response to these measures, the next thing to be



done is to press gently but firmly on the chest wall once or twice at a few seconds interval ; may be it is only the rhythm of respiration that is in abeyance.

(c) Gently invert, or partly invert the patient by drawing the head well over the end of the bed and raising the feet. In children the inversion may be complete by holding them up by the heels. While this is being done a little water may be dashed over the face, or the bare chest may be flicked with a wet towel, but this must not be done too energetically.

(d) Artificial respiration may now be tried—if possible by a combination of Sylvester's and Howard's methods—and must be persevered in for some time.

Cases of over-narcosis that are recoverable will usually show indications in that direction under the treatment above suggested ; but should they not do so, and as adjuncts to this treatment, the following plans may be given a trial. It must be distinctly understood, however, that these methods are recommended merely as adjuncts, and are not to be employed in lieu of the routine treatment :

(e) Inhalation of nitrite of amyl, or, better, of oxygen.

(f) Hypodermic injections of strychnine and digitaline if the case is diagnosed early, but if the pulse at the wrist has entirely disappeared it cannot be expected that the drugs will be absorbed. The hypodermic use of ether, alcohol, etc., is irrational and of doubtful value.

(g) Electrical stimulation of the cardiac area ; of the diaphragm and of the phrenic nerves : and of the pneumogastric nerves in the neck.

(h) Rectal infusions of normal salt solution, or intravenous injections of the same.

(i) As a last resource, acu-puncture or galvano-puncture of the heart itself has been recommended ; it has even been suggested that pressure should be applied to the heart, through an opening made along the left margin of the ribs, or into the pericardium. I am not aware, however, that this latter suggestion has ever been put into practice.

In conclusion, it must be pointed out that patients who have suffered from over-narcosis are particularly liable to relapse, and should be carefully watched for some hours.

#### **The Treatment of Senile Gangrene.**

JONES, THOMAS. "On the treatment of senile gangrene."—*The Medical Chronicle*, January, 1898.

After referring to the fact that this disease is not necessarily confined to the advanced period of life, but may be met with at any time after 40 years of age, in cases where we have marked degenerative changes in the arterial coats, the writer describes as important premonitory symptoms persistent coldness of the feet, and perverted sensations, especially crampy pains in the calf. On the occurrence in such class of patients of these symptoms, everything calculated to further depress the vitality of the tissues is to be avoided. The insufficiency of the blood supply is to be met by the artificial maintenance of the local temperature and any breach of surface is to have careful attention.

In those cases in which the gangrenous process has actually set in the indications are to circumscribe the disease and minimize its effects. The skin of the foot and leg are to be thoroughly cleaned, adopting the same antiseptic measures as if about to submit the part to operation. The immediate vicinity of the dead part is to be freely dusted with iodoform and covered with sublimate or salicylic wool, the whole being kept in position by a flannel bandage, carefully and evenly, but not too tightly applied.

Should any discharge exist, the dressings on this part should be renewed every or every other day. The parts should be kept as dry as possible, and no moist warm applications should be permitted. Pain has to be met by the internal administration of opium. Locally a powder composed of boric acid, bismuth and morphia, may be applied with benefit at the junction of the dead or living tissues.

In some cases the pain is so severe and persistent that the only remedy is removal of the limb. While amputation anywhere in the vicinity of the gangrenous part is useless, and the result disastrous, amputation above the knee-joint may be more successful. The writer lays down the following rules. (1) When the gangrene is limited to one or two toes, and the patient's condition is, and remains satisfactory, be content with the local treatment described. (2) When the gangrene has reached the metatarsus, be prepared to carry out amputation above the knee, or in rare and favourable cases through the knee-joint itself.

#### **Delayed Resolution in Pneumonia.**

STENDEL, ALFRED. "Delayed Resolution in Pneumonia, and its Treatment."—*Therapeutic Gazette*, February 15th, 1898.

We are all of us too prone to regard the resolution of the lung as concomitant with defervescence. In typical cases of croupus pneumonia the temperature declines before the processes of resolution have begun, or at least before they have made any considerable pro-

gress. Pathologically speaking, resolution may fail on account of untoward changes in the diseased area, or because of mere delay in the ordinary processes. In the former instance the disease may terminate in abscess or necrosis of the lung or in interstitial pneumonia; in the latter, after a more or less tedious course, complete resolution finally takes place. The writer, while he believes it possible that these long delayed cases may be wholly normal in their histological course, is convinced that in most instances there is at least some interstitial thickening of the septa and connective tissues generally, which causes the greater delay in resolution. Delay occurs more frequently in irregular pneumonic conditions, especially in such as are characterized by proliferative cellular processes. Instances of this kind are met with among the pneumonias complicating infectious diseases, and Bright's disease, and in secondary pneumonias following embolism. Other cases occur in the aged, and in persons reduced greatly in vitality. The causes of delay in resolution in such cases no doubt vary in different individuals. Massive exudates are probably more difficult to absorb than moderate ones. Weakness of the respiratory movements, and an enfeebled circulation are probably contributory conditions. In the treatment we should endeavour to recognize the several causes. The writer has, however, seen little benefit from the various tonics, stimulants and alteratives recommended by various authorities. Counter-irritation has, however, appeared to be of benefit in every case in which the writer made use of it, and the benefit was generally in proportion to the severity of the application. Next to counter-irritation the writer ranks systematic breathing exercises either in the form of deep inspirations and expirations, or of exercises with bottles after the method suggested by James for the treatment of cases of empyæma after evacuation. In cases of moderate consolidation or persistent broncho-vesicular breathing after pneumonia, the writer relies upon breathing exercises rather than upon counter-irritation; but in cases of marked consolidation these breathing exercises might tend to exhaust the patient, and if there was great lack of expansion on the affected side they would prove of little service.

*A. D. Blackader.*

## Pediatrics.

UNDER THE CHARGE OF A. D. BLACKADER.

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### Chorea Minor.

WEIR MITCHELL, S., AND RHEIN. "A clinical re-examination of the motor symptoms of chorea."

GUTHRIE, LEONARD. "The varieties of ordinary chorea in children and their treatment."—*Treatment*, March 10, 1898.

Ever since the days of Sydenham, the general profession has been deeply interested in the etiology and treatment of this comparatively common disorder. Its association with rheumatism appears to have been clearly recognized by the physicians of Guy's Hospital during the early decade of this century, and Bright directed particular attention to this subject. Since then the relationship has been the subject of much investigation and discussion, without eliciting any very definite results, beyond the fact that between 40 and 50 per cent. of all choreic cases present a distinct rheumatic history; the percentage varying according to what symptoms the observer at the time may choose to recognize as a manifestation of rheumatism. The majority of recent writers emphasize the fact of the close connection between the two diseases. The occurrence of chorea following fright or emotional disturbance is at first difficult to reconcile with a rheumatic origin of the disease, but the effects of chill and emotional shock are practically the same. Both produce altered conditions of circulation lowered vitality, and probably disordered metabolism; conditions which may favour the action, or limit the elimination, of the rheumatic toxins, whatever they may be. A single exposure to wet or cold may determine an attack of rheumatic fever in some, whilst in others repeated and prolonged exposure may be required. So a sudden shock or fright may produce change in some cases, whilst in others it is only developed after long periods of emotional disturbances, such as over pressure in school.

As regards the choreic manifestations very little attempt has, up to the present, been made to study them carefully, and even recent textbooks have added little to the vivid description of this disorder originally given by Sydenham. In his Lectures on the Nervous System as long ago as 1881, Dr. Weir Mitchell pointed out that this:

description was imperfect, and that the symptoms, as manifested in different cases, admitted of some classification. Working out the suggestions which were made then, Dr. Mitchell and Dr. Rhein have made a study of the motor manifestations in the cases which came under their care, and found that there is a striking diversity. Accordingly they divide cases of this disease into five groups :

1. Cases in which during voluntary muscular inaction, choreiform movements are almost continuous, but in which these movements disappear entirely when muscular acts are performed. This appears to be a phenomenon quite beyond the influence of the will, and suggests that inhibition for the time is increased.

2. Cases in which choreiform movements are continuous during rest, but become greatly increased with intentional effort. It is impossible for one suffering from this variety of the malady to complete satisfactorily any voluntary muscular act.

3. Cases in which choreic manifestations only become evident on attempts to perform a muscular act. The hands at rest move, if at all, only slightly, and at rare intervals, but on attempting to use them, the twitchings become sufficiently active to prevent, or greatly to interfere with, the performance of the act. These cases are comparatively rare. So also are the next class.

4. Cases in which the movements, continuous during rest, are but slightly altered by the tests employed.

5. There are also cases which present during their course at different times, more than one of the types described.

Beyond the clinical interest attaching to this classification the writers do not for the present claim any special significance for it.

Dr. Guthrie, in his paper, while recognizing the valuable clinical facts underlying the observations of Dr. Weir Mitchell and Dr. Rhein, thinks a more serviceable classification can be made by arranging the cases in groups which, when recognised, will in themselves afford indications for treatment.

He would divide all cases of chorea into two main classes : (1) Sthenic, or explosive, in which the predominating character of the symptoms is violence, and wide range of movements. (2) Asthenic, or pseudo-paralytic, in which the movements are feeble in character, and the patient appears to have some loss of muscular power, or of will power, to execute voluntary movements. These two main groups may be further subdivided into severe and mild forms.

The severe form of the sthenic class is characterized by constant violent, irregular, jerking movements of the whole body during rest, and by exaggeration of the movements on attempted voluntary action

The patient is never still for a moment, except during deep sleep ; and sleep may be prevented, or disturbed (when not profound), by involuntary movements. Facial contortions are pronounced, and form an admirable physiological study of the expression of emotions. The expressions of gladness, sorrow, pain, pleasure, disgust, fright, contentment, etc., follow each other in rapid succession, and one fades into the other as in a dissolving view. Opposite expressions may occur simultaneously in different parts of the face.

The movements of the hands and arms are elaborate, but are only half performed and contradictory. Speech is not usually lost. There may be irritability and fretfulness, but mental symptoms are not generally pronounced. In these cases there is, apparently, an excitability of motor centres, with complete absence of inhibitory control.

In the milder varieties of this form, movements are still the prominent feature, but they may be facial only, or hemiplegic or monoplegic in character. In the most favourable cases for treatment the movements chiefly occur when notice is taken of the patient. He can often perform acts requiring manual dexterity so long as he is not watched ; or, as in Weir-Mitchel's first type of cases, movements continue when the patient is at rest, but there is no inco-ordination when acts requiring delicate muscular effort are performed. In these, the power of inhibitory control is in abeyance, but can be called forth by an effort of volition. The milder types may mark the onset or the decline of the disease. Sometimes they are combined in the same patient. Sometimes one of the milder types prevails throughout.

In severe cases of the asthenic, or pseudo-paralytic class, the patients are usually emaciated and prostrate. They lose all power of voluntary movements, and attempts to execute such only result in slight twists or shrugs of the whole body. There are no facial contortions, but the expression is wild or imbecile. They cannot protrude the tongue, and cannot speak (dumb chorea). There is often difficulty in feeding them. Mania or dementia is not uncommon. Acute endocarditis or pericarditis perhaps occurs more frequently in this class of case than in the former, in which the shifting murmurs commonly heard seem to be functional, or due to chorea of the heart muscle itself. These cases are usually protracted and difficult to treat. In the milder forms movements are again less in evidence than in the sthenic cases. They have been rarely observed by the patient's relatives or friends. The children are usually supposed to be paralyzed ; commonly in one arm, which hangs limp and flaccid at the side. The child makes no voluntary effort to use it, and when pressed to do so, the movements are feeble and abortive. In the asthenic group of cases.

there seems to be inhibition of movement, rather than want of inhibitory control. There is not the hyperexcitability of the motor centres which marks the sthenic variety.

As in the sthenic group, the types of the asthenic may pass into each other. Whether the asthenic type ever passes into the sthenic, I am unable to say, but the sthenic often becomes asthenic in character.

In the treatment of severe sthenic cases in which there is great excitability of motor centres, with entire absence of inhibitory control, absolute confinement to bed is essential. The bed should have padded sides, in order to prevent the patient from hurting himself or falling out. *Chloral hydrate* is a very valuable remedy in such cases. It must be given until natural sleep is procured. Sometimes five-grain doses, thrice daily, are sufficient for a child of five or six, but it is usually necessary to increase the dose and to give it every four hours in order to get the patient fully under its influence. Ten to fifteen grains may thus be given to a child aged eight or ten. The pulse and heart should be carefully watched meanwhile, and, if they show signs of failure, brandy and digitalis, strophanthus, or caffeine, should be given. The tincture of *cactus grandiflorus*, in doses of two or three minims, is useful when there is much cardiac disturbance or feebleness without definite sign of endocarditis. In very severe cases, in which even chloral hydrate fails to produce rest and sleep, inhalations of chloroform may be necessary.

In milder sthenic cases, other nerve sedatives are of use. *Antipyrin*, in doses of three to five grains for a child aged between five and eight is often very efficacious; so also is *monobromide of camphor*—one to four grains three times daily, with liquorice powder. Extract of calabar bean, one-twentieth grain to one-sixth grain, with extract of indian hemp, one-third grain to one-half grain have been used with good effect. They may be made up with glycerine and peppermint water.

Two of the sub-varieties of the sthenic form require some consideration. (a) Cases which, after being confined to bed for some weeks, cease to improve. Sometimes the movements continue whilst the patient is at rest, and cease when voluntary action is attempted (Weir Mitchell, Group I.) This is an indication for encouraging voluntary movements, by getting the patients out of bed and allowing them to go about. They then often speedily improve. (b) Sometimes the movements occur only when the child is being watched whilst at rest, and when it attempts actions requiring manual dexterity, under supervision. These children are usually timid, self-conscious little creatures. They gain confidence if patiently encouraged to use their muscles, and

soon lose their ataxy. Simple drill exercises can easily be invented to meet the case. Drill exercises are also of use when the ataxy only occurs on voluntary movements, whether the child is being watched or not.

Those cases of chorea in which there are merely tricks of habit—grimaces, facial contortions, sniffing, snorting or grunting noises—provided that no local cause of irritation exists, are best treated by moral suasion. They are, however, often signs of derangement of general health.

In the treatment of the asthenic, or pseudo-paralytic, class of cases it is to be remembered that in these there is little evidence of undue excitability of the motor areas, but rather of an increased inhibition of movement, or of a deficient will power. In these cases it is notable that symptoms, such as dementia or mania, implying disorder of the highest cerebral centres, are liable to occur. In severe cases the important indication is the profound general exhaustion, for which the treatment should be recuperative and stimulant, rather than sedative. Absolute rest in bed is essential with abundance of nutritious food and general massage. Stimulants should be used freely at first, reducing the amount as soon as improvement commences. Quinine and nuxvomica are often serviceable, whereas in sthenic cases quinine seems to exaggerate the condition, as it often does in epilepsy.

Arsenic, in small doses, is, I think, valuable as a general nerve tonic in all forms of chorea, but cannot be regarded as a specific cure for the disease. When given in gradually increased doses, it usually deranges the stomach for a time, and its use has to be discontinued. Several instances of arsenical neuritis, after the use of arsenic in large doses, have recently been recorded.

Partial dementia is not uncommon, and sometimes there may be acute mania accompanied by attacks of violent and prolonged screaming. In true mania with these symptoms, chloral and bromide are indicated, but the symptoms may be due to a curious moral perversion which also sometimes occurs in children recovering from long and exhausting illness, such as typhoid fever. This may require appropriate treatment.

Milder cases of the asthenic variety, like those more severe, need treatment by tonics, good food, rest in bed, and massage. After a time, exercises for the affected limbs should be prescribed. Salicylate of quinine, when there are muscular pains, and cod liver oil with maltine and iron, when anæmia is present, are better remedies than bromides and sedatives.)



True endocarditis (as distinguished from the functional and temporary disturbance frequently met with) and pericarditis occur oftener in asthenic than in sthenic cases. Their treatment should be on the usual principles. It is important, however, to remember that maniacal screaming and delirium are often associated with pericarditis, and that treatment should be directed to the cardiac, rather than to the cerebral symptoms.

Finally, the close association between chorea and rheumatism is to be remembered, and a patient who has once suffered from chorea should always be treated as a rheumatic subject.

*A. D. Blackader.*

## Gynaecology.

### Ectopic Gestation.

SWAIN, PAUL, F.R.C.S. "Ectopic Gestation."—*Edinburgh Medical Journal*, January, 1898.

WORRALL, RALPH, M.D. "Cases of Ectopic Gestation."—*British Gynaecol. Journal*, November, 1897.

Swain considers that, in the healthy Fallopian tube, the cilia propel the ovum towards the uterus and obstruct the advance of the spermatozoa along the tube. If these cilia are destroyed the ovum is very liable to remain in the tube and become impregnated in this situation, where it proceeds to grow. Primarily, all ectopic gestations beginning in the tube may be interstitial, tubo-ovarian or "Fallopian," *i. e.*, between the two former. He wisely does not believe in the existence of a true ovarian pregnancy, although one would infer from his remarks that he considers primary abdominal pregnancy to be met with now and then, whereas it is well known that the placenta could not become attached to and be nourished by the peritoneum.

The diagnosis is difficult, for the first few weeks the usual signs and symptoms of intra-uterine pregnancy often occur. Then sudden severe pelvic pain, probably accompanied by faintness, is felt, similar attacks recurring every now and then, especially after any exertion. He makes no mention of the dull, aching pain caused in the early stage by the gradual distension of the tube by the growing ovum. The patient also complains of irregular discharges of blood, and often shreds of tissue from the uterus. Vaginal examination reveals the uterus to be more or less enlarged, and that a boggy mass lies posterior to it. He does not think that ectopic gestation can be diagnosed before rupture, but this is not the case. While one often is unable to diagnose accurately the condition, yet, where you have no history of a previous acute pelvic trouble, and the patient complains of irregular discharges of blood from the genitals and a dull, aching pain in one side, and, on making a local examination, you find the tube on that side to be distended, you can be fairly sure that that tube contains an impregnated ovum. He does not approve of the expectant methods of treatment where primary rupture has taken place, but advocates removal of the tube, although he discusses the

use of electricity. Operation is still more imperatively called for where the rupture has taken place into the peritoneal cavity, and intravenous injection of salines after or during the operation often are of the greatest service.

Dr. Warrall relates four interesting cases, agreeing in the main with the above writer, but thinks that diagnosis before rupture is quite possible.

In the most serious cases no swelling will be felt, as the blood has escaped free into the peritoneal cavity, the treatment here being immediate abdominal section, washing out the abdominal cavity very thoroughly with saline solution after removal of the ruptured tube. Where, however, the rupture has taken place into the tissue between the layers of the broad ligament, you will make out the presence of a mass. Here nothing but rest and opium are required, according to Warrall. This is true in the majority of cases, but such patients should be very carefully watched, and the tube removed at once if the mass continues to enlarge.

#### **Treatment of Pruritus Vulvæ.**

ROBINSON, DR., G. D. "Pruritus Vulvæ."—*Treatment*, January 13th, 1898.

In this extremely troublesome affection an effort should be made to get the patient's general health into as good a state as possible, careful attention being paid to the bowels. As regards medicine, twenty grains of calcium chloride given internally several times daily often give a good result.

The first requisite in local treatment is to keep the parts free from irritating discharges, for which purpose the free use of antiseptic douches, *e. g.*, sublimate 1—3000—5000 or carbolic acid 1—60, is highly recommended. This may be aided by placing a dry plug of absorbent cotton just within the vulva, to arrest the discharge before it reaches the sensitive parts. For syphilitic ulcers, a powder consisting of equal parts of calomel and oxide of zinc will be found to be very healing, especially if the parts be first carefully bathed with black wash.

Where diabetes is the cause the vulva should be well douched after each act of micturition, and then smeared with some simple ointment.

If the condition is not very chronic, an ointment of cocaine or eucaine will be found to give great relief.

As a last resource, the sensitive parts may be removed by operation, but, fortunately, this is not often required.

### Uterine Displacements.

FOTHERGILL, DR. "Uterine Flexions and Versions."—*British Medical Journal*, January 15th, 1898.

ASHTON, W. E., M.D. "Displacements of the Uterus from the standpoint of treatment," etc.—*Amer. Gynecol. & Obstet. Jour.*, January, 1898.

MARTIN, F. H., M.D. "A new operation for ventral fixations of the Uterus."—*Amer. Gynecol. & Obstet. Jour.*, February, 1898.

Fothergill states that both flexions and versions often exist without giving rise to any symptoms or interfering in any way with the process of reproduction. Where the symptoms date from puberty, the displacement may be said to be congenital. In such cases, where the symptoms of pelvic trouble have been set up by some accident of reproductive life, the displacement itself will not require treatment. Where, however, the displacement is only discovered after some such accident, the malposition will probably be found to be due to some sequela which should be sought out and cured, such as a pelvic peritonitis, causing adhesions which drag the uterus out of place. Retroversion is one of the earliest signs of uterine prolapse, the cause of which should be sought for and treated. To sum up, in all cases of "distortion or displacement of the uterus, the pathology should be carefully thought out before, as was sometimes done, proceeding to rectify the condition by the introduction of a pessary or by any of the fashionable operative measures."

In Ashton's paper the same stress is very properly laid upon searching for the cause of a displacement before proceeding to treat the condition, and gives the following classification of displacements founded upon the form of treatment to be adopted :

*Firstly*, where the uterus is displaced as a whole, except in the case of prolapse, the displacement is of secondary importance, as it is caused by adhesions pulling or tumours pushing the organ out of position.

*Secondly*, where there is a uterine flexion or version the condition is a primary one, and should be treated as such. An exception is made, however, in the case of lateral deviations, which are usually secondary to adhesions or tumours.

*Thirdly*, inversion of the uterus is of primary importance. This classification is both incorrect and unnecessary. Its want of accuracy is best shown by the frequency with which we meet a case of retroversion of the uterus caused by a small fibroid of the posterior wall.

Then again, prolapse of the uterus frequently follows laceration of the perineum, and, in order to cure the prolapse, it is just as necessary to repair the perineum as it is to remove a tumour in order to cure what the writer terms a secondary displacement, for, just as the tumour is keeping up the displacement in the one case, so is the relaxed condition of the vaginal outlet depriving the uterus of its proper support in the other.

In recent primary posterior displacements, *i. e.*, those in existence for less than twelve months, much can be done to cure the condition by attending to the soft parts and introducing a Hodge's or Smith's pessary. He reduces the size of the uterus and stimulates the uterine ligaments by hot vaginal douches and ichthyol tampons. At the same time attention should be paid to the patient's general condition. This treatment should be persevered in for a year, and then, if not cured, the condition should be treated as a chronic case, for which operative measures will be necessary. Of these, the best is undoubtedly ventro-fixation, as, if properly performed, it gives the best results in every way, and will not interfere with gestation. In this operation, he suggests passing the first three sutures, which are to close the wound, through the peritoneum, so as to prevent its being stripped off from the abdominal wall. This, I think, is quite unnecessary, as the intra-abdominal pressure will prevent any extensive separation, and, in addition to this, you run the risk of infecting the peritoneal cavity on removing the sutures.

The operation of ventro-fixation, as performed by Fowler, consists in separating the urachus and a strip of peritoneum from the abdominal wall and dividing it at its lower end. Cleveland's suture carrier is passed beneath the peritoneum covering the fundus, and the free end of the urachus is drawn through and fastened in its old position by being included in the lower three or four abdominal sutures.

Dr. Martin, of Chicago, has modified this operation by not including the urachus in the strip of peritoneum which he carries beneath the peritoneum of the fundus in an antero-posterior direction by means of Cleveland's suture carrier, and fastens just as Fowler does the urachus. Temporary catgut sutures are passed through muscle, fascia and peritoneum of each side and through the fundus, to help keep the latter in position until the strip of peritoneum has become firmly united to the surrounding parts. The wound is eventually closed by through and through silkworm gut sutures.

Neither of these operations possess any advantage over the older and well tested methods of ventral fixation by means of buried silk

or silkworm gut sutures. The chief objection to Fowler's operation is that it cannot be performed on women during their reproductive life, as the urachus will not allow the uterus to develop properly during gestation, and if, as I think Dr. Fowler himself admits, the buried suture is preferable where there is liability to pregnancy, when it will be dragged upon and irritated by the enlarging uterus, surely it is the method to select when, once it is inserted, the suture will have nothing to disturb it, as will be the case in women who have passed the climacteric, whether this be artificial or natural. Another objection to both is that it takes a longer time to dissect up the peritoneum, etc., than to simply pass the suture; of the two, Martin's is the best operation, as it allows of more freedom of movement of the uterus, but it is doubtful if the single layer of peritoneum which holds the uterus in place will stand the tension exerted by the growing pregnant uterus as well as the two layers which are drawn down to form the suspensory ligament when the buried suture is employed.

*F. A. L. Lockhart.*

## Reviews and Notices of Books.

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**Pathological Technique; A Practical Manual for the Pathological Laboratory.** By F. B. MALLORY, A. M., M. D., Assistant Professor of Pathology, Harvard University, and J. H. WRIGHT, A. M., M. D., Instructor in Pathology, Harvard University. pp. 397, 105 illustrations. Philadelphia, W. B. Saunders. 1897.

It is no excessive praise to say that Dr. Mallory and Dr. Wright have produced a book which is the best of its kind, and which is certain to be in constant use as a work of reference in every Pathological Laboratory on this continent, and in English-speaking lands. There have been published excellent works upon post-mortem methods by Virchow, Chiari and others; excellent and practical handbooks upon bacteriological methods by Abbott and Kanthack and Drysdale; Von Kahlen, Lee and Israel have given us invaluable text-books on histological methods; Von Jaksch, Lenhartz and Simon, to mention but a few names, have written first-class works upon the laboratory methods of clinical diagnosis,—but until this book of Mallory and Wright appeared, there was no one book bearing upon the whole practice of the Pathological Laboratory, and more especially upon the work of a pathological laboratory attached to a hospital.

While we fancy that the volume before us will be found most serviceable as a work of reference in the laboratory, it will also be invaluable for the senior student. As the authors state in their preface, it is hoped that their method of presenting the subject will bring the student to realise that the mechanical performance of the post-mortem examination, and the inspection of coarse lesions, constitute only the beginning of the solution of the problem or problems presented by each autopsy, which should be investigated bacteriologically, histologically and chemically, as far as our present knowledge will permit; to realise also, we should add, that during life the same methods must be applied to the study of each case—so far as the excretions and morbid products are obtainable.

In the presentation of the different subjects, the authors most advantageously have made no endeavour to give an extensive collection of methods and formulæ, but have selected those which have been found of greatest service in practical work. With their experience in the Boston laboratories, and with their known reputation in the study and development of methods, what they have written may, with very rare exceptions, be regarded as the best and a most thoroughly reliable. Altogether we cordially congratulate the Harvard Pathological School for having produced a work so valuable, and, in fact, indispensable.

J. G. A.

**A Manual of Pathology, including Bacteriology, the Technique of Post-Mortems and Methods of Pathologic Research.** By W. M. LATE COPLIN, M. D., Professor of Pathology and Bacteriology, Jefferson Medical College, Philadelphia. 638 pp.; 268 illustrations. Philadelphia: P. Blakiston, Son & Co.; 1897.

This is a clear and well written smaller Manual of Pathology, which should be useful for instructing the student in the elements of post-mortem examinations, clinical pathology, general pathology, bacteriology, and the special pathology of the various organs. But, from this statement of the amount of material compressed in the work, it will be evident that in six hundred pages of relatively large type, it is impossible that there should be anything more than the briefest consideration of the various departments of the subject; and nowadays, when these various subjects form separate courses in our Universities, and when there are in connection with most of the branches of pathology already existing excellent handbooks, it is a little questionable whether it is wise to recommend a work of this nature to the student. In clinical pathology alone much more is needed nowadays than is embraced in Dr. Coplin's very clear description of the examination of the blood and urine; while in general pathology, if the course is to be of any use in the training of the student to appreciate the main morbid processes, what is requisite is not merely a series of definitions and descriptions of those processes, but such a discussion concerning the nature and origin of the same as will make him approach a case with a fuller appreciation of the causation and of the relationship of the symptoms represented by that case.

Yet, granting all this, it must be admitted freely that Dr. Coplin has succeeded in placing in a clear and not uninteresting manner that portion of pathology which is the framework of our knowledge of the subject, and without hesitation we can recommend it as being better than any other work with which we are acquainted of the same size and scope.

J. G. A.

**Transactions of the American Microscopical Society.** Vol. XIX. Buffalo; 1897.

These transactions form a well printed and illustrated volume of 200 pages, and give the papers read before the Association at the meeting in Toledo during last August. The microscope is so all-important an instrument nowadays in so many sciences that, as will be understood, the range of the papers here included is singularly wide, varying from the micro-structural characteristics of steel and the light thrown by the microscope in geological darkness, through the rotifera of Sandusky Bay, to the phagocytic action of leucocytes, and the comparative study of hair, from the medico-legal point of view. It will be understood, therefore, that many of these papers have no direct interest for medical readers; on the other hand, we are not a little impressed with the amount of interesting



matter contained in this volume. Thus, Mr. J. C. Smith's article upon the development of Spores in the *Amœba Villosa*, incomplete in some respects, is in the highest degree interesting, as showing the relationship of the amœba to the sporozoa. We were ignorant until this paper appeared that the encystment of amœba might be followed by the development of spores, which, upon rupture of the capsule, are liberated as flagellated bodies. In this observation we have an indication that the amœba, such as we get in dysentery, and the sporozoa, such as we have in malaria and some other diseases, may not be so far apart as one has been apt to consider them.

Mr. J. M. Berry's article upon the Phagocytic Action of Leucocytes in Amphibia and Mammalia brings out the curious point that, both in amphibia and in the lower animals, finely divided carbon (lamp black) introduced into the jugular vein, is to be found a few days later in great abundance in the peritoneal cavity, either free or more often enclosed in leucocytes. So constantly did Mr. Berry obtain these results that one is led to consider that very possibly, under ordinary conditions, the large serous cavities of the body may become a point of discharge for not a few substances taken up by the wandering cells of the system. In this case the carbon must clearly have been taken up by the leucocytes in the blood, which, then, must have wandered out of the vessels into the lymph spaces, and so into the serous cavities. Mr. Berry, however, would appear to be ignorant of much of the work that has been done by Welch and others upon the transfer of pigment (in cases of Anthracosis, etc.) to distant organs, and its deposit there. He runs down previous important studies in a way rather characteristic of an immature worker; while his English or want of English is occasionally irritating. An "ingested leucocyte," for example, can only mean a leucocyte that has been taken up and englobed by something else, not as he uses the term,—a leucocyte which has ingested and taken in foreign particles.

Dr. W. G. Reynolds' paper on the Comparative Study of Hair is valuable for reference, being accompanied as it is by neat illustrations of the hair of close upon twenty different animals.

Lastly, Dr. A. E. Loveland, of New Haven, gives a general summary of his own and other people's work upon the development and anatomy of the organs of taste.

In short, the articles, which are perhaps not in the highest degree original or matured, are, nevertheless, not a little valuable, and an examination of these Transactions well repays the reader. J. G. A.

**American System of Practical Medicine.** Edited by A. E. Loomis, M. D., and W. G. Thompson, M. D. Vol. III. Lea Bros., Phil. 1898.

As in the preceding volumes of this work, so here the selection of contributors has been made with a view to special excellence in the several

departments, and the majority of articles are, therefore, from men who are enabled to write "not as the Scribes."

Among the nineteen whose articles form the basis of the present volume are such names as Hare, Dock, James, Kinnicutt, Starr, etc. Canada is ably represented by Drs. Graham (of Toronto), and James Stewart and F. G. Finley (of Montreal).

Dr. Graham deals with Diseases of the Liver and Gall Bladder, and has furnished what is undoubtedly one of the most valuable contributions of its kind to our present text-book literature. In a space of nearly 200 pages the subject is lucidly explained, and the most recent work is discussed in a manner which cannot but be pleasing to every reader.

The editors are to be congratulated on the excellence of their choice, and the literature that has emanated from them. C. F. M.

**Lectures on the Actions of Medicines.** Being the Course of Lectures on Pharmacology and Therapeutics, delivered at St. Bartholomew's Hospital during the Summer Session of 1896. By T. LAUDER BRUNTON, M.D., F.R.S. London: Macmillan & Co.; New York: The Macmillan Company. 1897.

Of the text-books upon Pharmacology and Therapeutics at present in use, while many are excellent and admirable in their arrangement and scope, it must be confessed that, with scarcely an exception, they are somewhat dry and forbidding. They are not works which the student or practitioner willingly takes up to enjoy a spare hour by the reading thereof; indeed, we think that most of us, looking back upon our student days, will remember, with more or less of a shudder, the dry task that it was to get up, from text books, these subjects of pharmacology and therapeutics, although those of us who saw beyond the dry presentation of the subject, and worked to gain a grasp of the scientific principles underlying the mass of details, must have abundant cause in practice to be thankful for the grasp they then gained of the principles of rational treatment. Dr. Lauder Brunton, whose reputation as a pharmacologist is, we need not say, world-wide, has, like many another modern teacher, realized these difficulties and discouragements, and the lectures here published are the result of his determination to attract the student and reader to take an intelligent interest in these matters. The work before us does not pretend to be a complete manual of the subjects of which it treats; it is, as he points out, abundant in some parts and scanty in others, but the main object throughout the whole is to excite the interest of the student and of the reader, and to impress certain main points which will form a nucleus of his knowledge around which he may afterwards group more information. In the author's introductory remarks he points out that the first course of lectures which he gave in the seventies were the fullest and most complete, and, from an examination point of view, the most satisfactory. To insure that nothing should be missed, they were carefully written down

and read out to the students; but, as he soon found out, the fact that they were read lessened their effect upon the students, and the amount of information crammed into them during the hour was far more than they could comfortably digest, so that now each lecture, as here given, contains only as much as the student or the reader can comfortably take up. The result is a work which, thanks to Lauder Brunton's simple style, is delightful reading—a work which, as a layman declared to us, is as interesting as the best novel, so that, once taken up, one is impelled to read through to the last word. Rarely indeed have we come across a medical work so pleasant to read. It is quite possible—in fact, we know,—that other leading pharmacologists disagree with Lauder Brunton's presentation of not a few points in connection with the subjects. It must always be remembered that he has his pet theories and idiosyncrasies: but, granting this, the work is so suggestive on every page that the ordinary man, to whom in the past pharmacology has appeared to be an experimental science not sufficiently advanced to be of practical every day use, and whose therapeutics have been, alas! haphazard, must, from the moment he reads this book, regard the subjects in a new light, and must learn to appreciate the great and practical importance of a scientific knowledge of both. We can thus most cordially recommend the work, not so much as a text-book, but as the most valuable aid we have as yet come across to a knowledge of the action of medicines, as a hand-book which every student would do well to possess; while to the practitioner we would recommend the work as a most fresh and suggestive presentation of the subjects. We have no hesitation in recommending everyone to obtain the work for the pleasure and the profit which he will obtain in the reading thereof.

J. G. A.

**The Practice of Surgery.** A Treatise on Surgery for the use of Practitioners and Students. By HENRY R. WHARTON, M.D. Demonstrator of Surgery in the University of Pennsylvania; Surgeon to the Presbyterian and the Children's Hospital; Surgeon to the Hospital of the University of Pennsylvania; Consulting Surgeon to the Bryn Mawr Hospital; Fellow of the American Surgical Association: and B. FARQUHAR CURTIS, M.D., Professor of Clinical Surgery in the New York Post-Graduate Medical School and the Woman's Medical School of the New York Infirmary; Surgeon to St. Luke's Hospital and the New York Cancer Hospital; Fellow of the American Surgical Association. Profusely illustrated. Philadelphia: J. B. Lippincott Company. Canadian Agent: Charles Roberts, 593a Cadieux Street, Montreal. 189.

The great activity in surgical work is evidenced by the number of good surgeries published within a very few years. The authors of the present volume do not attempt to deal in an exhaustive manner with all surgical diseases with the fullness and detail of some of the larger systems, but,

as indicated on the title page, they have prepared a book for practitioners and students. A somewhat careful perusal of the book shows that they have succeeded very well indeed. The different subjects are handled carefully and thoroughly, with due regard to brevity, and yet the meaning is clear and the illustrations are, as a rule, very plain and good. The chapters on the principles of surgery are delightful reading and not overburdened with that minuteness of detail only understood and appreciated by laboratory men. Full directions are given for the preparation of surgical dressings, the sterilization of instruments, and the preparation of patients for operation.

An important part of any book on surgery is the chapter on the diseases and injuries of bones, and that on the diseases and injuries of joints. These chapters in the present volume are among the best. The symptoms and treatment of this important part of surgery are exceedingly clear and the recommendations safe and reliable.

The weakest parts of the work are in what are called the specialties. Orthopædic surgery is hardly up to the standard. It is a debatable question whether gynæcology should not be left out of ordinary works on surgery. While it is quite true that a large part of a gynæcologist's work is operative, and while it is also true that gynæcological operations, so called, are among the easiest of performance and the freest from danger, yet their proper performance requires a special training in detail and technique, and this is lacking in most works on general surgery and in the volume under consideration. The patient might well be pitted who submitted to an abdominal hysterectomy, the operator knowing only what is taught in this book. Taken altogether, the book is a credit to its authors and publishers, and is one of the most admirable one-volume books on surgery that we have seen.

G. E. A.

**The Medical Annual and Practitioner's Index.** A work of reference for medical practitioners; by thirty-three contributors, 1898, sixteenth year. John Wright & Co., Bristol; Canadian Agents, J. A. Carveth & Co., Toronto. Price, \$2.00. Pp. 710.

To this annual, now in its sixteenth year, there have been added several new features which greatly enhance the value of the work. A report of the year's legal decisions affecting the medical profession directly or having reference to the public health has now been attempted for the first time and will be found of use to anyone having occasion to refer to the subject. As in former years, there are a number of original articles on subjects which the editors consider it is desirable to have information beyond what appears in the review of current literature. Among these are: Congenital dislocation of the hip, by A. H. Tubby and Robert Jones; Obliteration of the deformity in Pott's disease, by the same authors; Detection of stone in the kidney by X rays, by E. Hurry Fenwick; and Electro-therapeutics, by A. D. Rockwell.

An atlas of "Bacteria Pathogenic in Man" has been commenced in the present number and will be completed next year.

The book is well illustrated by thirty plates and a large number of wood cuts in the text, and can be recommended as containing a large amount of information arranged in a manner readily accessible to the busy practitioner.

G. G. C.

**The American Year-Book of Medicine and Surgery.** A Yearly Digest of Scientific Progress and Authoritative Opinion in all Branches of Medicine and Surgery, drawn from Journals, Monographs and Text-Books, of the Leading American and Foreign Authors and Investigators, collected and arranged with critical editorial comments by Samuel W. Abbot, M.D., John J. Abel, M.D., J. M. Baldy, M.D., Chas. H. Burnett, M.D., Archibald Church, M.D., J. Chalmers DeCosta, M.D., W. A. Newman Dorland, M.D., Louis A. Duhring, M.D., Virgil P. Gibney, M.D., Homer W. Gibney, M.D., Henry A. Griffin, M.D., John Guitéras, M.D., C. A. Hammond, M.D., Howard Hansell, M.D., Barton Cook Hurst, M.D., F. Fletcher Ingals, M.D., Wyatt Johnston, M.D., W. W. Keen, M.D., Henry G. Ohls, M.D., William Pepper, M.D., Wendell Reber, M.D., David Riesman, M.D., Louis Starr, M.D., Alfred Stengel, M.D., G. N. Stewart, M.D., J. R. Tillinghast, Jr., M.D., Thompson S. Westcott, M.D. Under the general editorial charge of GEORGE M. GOULD, M.D. W. B. Saunders, Philadelphia, 1898. Pp. 1077. Price, \$7.50. Canadian Agents: J. A. Carreth & Co., Toronto.

We have in this volume of upwards of a thousand pages not only a record of the progress made throughout the different departments of medical science during the year 1897, but, what adds greatly to the value of the work, a critical review of such by the leading American authorities in each department.

In Medicine, under the charge of William Pepper and Alfred Stengel, the Widal serum test for typhoid fever is looked upon as the most valuable advance of the year. In a table compiled from various sources it is shown that in 3779 reported cases correct results were obtained in 96.5 per cent., the percentage of reactions in typhoid cases being 95.5, and of no reactions in nontyphoid cases 98.4.

Among other points of interest we note the successful institution of a serum treatment for the bubonic plague, mainly through the labours of Yersin; the discovery of the bacillus icteroides in yellow fever (Sanerelli); some interesting experimental work on blood composition; and the recovery of two cases of purulent pericarditis through surgical interference. Shott's method of "resisted movements" is still under discussion and reports are mostly favourable. The author himself was able to show by means of skiagraphy that the breadth of the heart, after the gymnastics, was considerably diminished. Organotherapy still seems to

have a great many advocates, but apart from the well established use of the thyroid, no advance can be recorded. Under the heading of Instruments, one is glad to note that the phonendoscope is at last being valued on its merits. Instead of taking the place of the stethoscope, there is abundant evidence that it is only occasionally of use in delimiting the boundaries of organs. The value of the skiagraph has been proved in the diagnosis of intra-thoracic aneurysms, pulmonary consolidation and cavities, and cardiac hypertrophies.

In Surgery, the general trend, according to the editors, has been in the direction of enlightened conservatism. Very little new has been devised. Subjects of interest are, the position of iodoform in surgery, the use of formaldehyde as a disinfectant, the utility of antistreptococcic serum, the treatment of inoperable cancer of the mamma by oophorectomy, and of other parts by Coley's fluid—a mixture of the combined toxins of bacillus prodigiosus and erysipelas. That the surgery of the veriform appendix is still of very great interest is evidenced by the fact that 25 pages are given to its consideration, the points discussed being mainly with regard to the technique and the time to operate. Bassini's operation for the radical cure of hernia receives commendation from many sources; the latest statistics show the failures to be reduced now to 5 per cent., and the mortality to .28 per cent. Among new departures in treatment we note, the forcible correction of the deformity in Pott's disease, and puncture of the kidney in albuminuria.

In Obstetrics, the question of the higher education of midwives has been under discussion in England. Serum therapy in puerperal sepsis is still *sub judice* and is likely to have only a limited field of usefulness. Vaginal section in extra-uterine gestation has many advocates, but has not yet been proved an improvement upon older methods. The danger of labour after the operation for ante-fixation of the uterus is pointed out. Symphysiotomy has been practically abandoned in favour of Cæsarean section.

In Gynæcology, very little of value is recorded. Organotherapy has not been a success. The subject of bicycling in women is still attracting a large share of attention.

In Pathology, considerable work has been done on the etiology of tumours, and two Italian pathologists, Binaghi and Roncali have published observations, not yet verified, showing the etiologic relation of the blastomycetes to cancer. Coloured plates show the forms of these parasites in epitheliomata from seven different situations.

In Orthopedic Surgery, the correction of spinal deformities as already mentioned is the greatest change of the year.

In Ophthalmology, the X rays have been utilized in the localization of foreign bodies in the eyeball and orbit and many advances of minor importance are noted.

Three new departments have been created out of what last year came under one heading. These are Physiology, by Prof. John J. Abel, of Johns Hopkins Hospital; Public Hygiene and Preventive Medicine, by Samuel W. Abbott, Secretary of the Massachusetts State Board of Health; and Legal Medicine, by Dr. Wyatt Johnston, of Montreal. G. G. C.

**The Year Book of Treatment for 1898.** A Critical Review for Practitioners of Medicine and Surgery. Lea Brothers & Co., Philadelphia and New York.

This is the fourteenth publication of a very ably conducted annual review. Most of the contributors are recognized English authorities. Amongst others we note the well-known names of Garrod, Buxton, Reginald Harrison, Manson, Owen, Malcolm Morris and Dawson Williams. The volume is of convenient size and well printed, and contains a critical review of all important advances made in the several departments of medicine and surgery. We have much pleasure in recommending it to our readers. A. D. B.

**Appendicitis and Its Surgical Treatment, with a Report of Seventy-Five Operated Cases.** By HERMAN MYNTER, M.D. (Copenhagen), Professor of Operative and Clinical Surgery in Niagara University, and Surgeon to the Sisters of Charity Hospital in Buffalo, New York. Philadelphia: J. B. Lippincott Company. 1897. Canadian Agent: Charles Roberts, Montreal.

The degree of Doctor of Medicine is not conferred in Denmark at graduation as in America. It requires the writing of a monograph, showing special studies and individual experience, and is equivalent to *Habilitations-Schrift* in Germany, conferring the right to give lectures in the halls of the University as *Private docent*. Desiring to obtain the degree of Doctor of Medicine from his *alma mater*, the University of Copenhagen, twenty-six years after graduation, the author submitted this monograph to the University, and it was accepted in July, 1897.

Dr. Mynter gives a most interesting history of appendicitis. One wonders that the condition was not more fully understood in the early part of the present century. As far back as 1759 Mestivier reports a case of appendicitis going on to abscess formation. The abscess was incised, the patient died, and at the autopsy an encrusted needle was found in the appendix as the cause of the abscess. The history of subsequent cases reported, often at intervals of several years, is most instructive, and is a good answer to those who would make us believe the disease to be a development of recent years, some even insinuating that it is a creation of modern aggressive surgeons. Subsequent chapters deal with the etiology, pathology, symptomatology, complications and sequels, diagnosis, prognosis and treatment in a clear, interesting and instructive manner. The medical and surgical treatment

are carefully compared, and the different indications pointed out, in a manner that cannot but be helpful.

Finally the histories of seventy-five operated cases are given, and many of these cases are of great interest. The book is well written, and discusses the salient points of this acute surgical disease in a fair and practical manner.

G. E. A.

**International Clinics.** A Quarterly of Clinical Lectures on Medicine, Neurology, Surgery, Gynæcology, Obstetrics, Ophthalmology, Laryngology, Pharyngology, Rhinology, Otology and Dermatology, and Specially Prepared Articles on Treatment. Edited by JUDSON DALAND, M.D., J. MITCHELL BRUCE, M.D., F.R.C.P., and DAVID W. FINLAY, M.D., F.R.C.P. Volume IV., Seventh Series. 1898. J. B. Lippincott, Philadelphia. Canadian Agent, Charles Roberts, Montreal.

This volume contains thirty-eight lectures, some of which are by the leading clinical teachers of Europe and America, on subjects covering almost every department of medicine and surgery. All are of practical interest, and have been well selected with reference to the objects for which the quarterly is intended. A few of the subjects discussed are:—Poisons and Their Treatment, by Herman D. Marcus, of Philadelphia; Diabetes Mellitus, by George Klemperer, of Berlin; The Present Position of the Diagnosis of Gastric Disease, by I. Boas, of Berlin; Concerning the Blue Line in the Gums in Lead Poisoning, by D. D. Stewart, of Philadelphia; The Differential Diagnosis of Typhoid Fever, with Especial Reference to the Diazo Reaction and the Agglutination Test of Widal, by Charles Lyman Greene, M.D., of St. Paul.

G. G. C.



## Society Proceedings.

### MONTREAL MEDICO-CHIRURGICAL SOCIETY,

*Stated Meeting, February 18th, 1898.*

ROBERT CRAIK, M.D., PRESIDENT, IN THE CHAIR.

#### **Fibroids of the Uterus Expelled after Electrical Treatment.**

Dr. LAPHORN SMITH reported two cases of absolute and complete cure of fibroid tumour of the uterus by electrical treatment, method of Apostoli. A tumour about the size of a large orange and weighing about a pound, which had been expelled from the uterus of one of them, was shown. This patient was a single lady, 31 years of age, who had been sent to him from Toronto on account of profuse hæmorrhages which had exhausted her, and for intense pain at the periods. After 40 applications of about 100 milliamperes + for eight minutes, she was taken with labour pains, which lasted two days, at the end of which time the tumour was found in the vagina, and completely filling it. An ecraseur wire was put around it and its connections cut through, after which it was delivered by forceps. An effort was previously made to marcellate it, but was abandoned on account of its density. The perineum was lacerated in extracting the tumour, but it was immediately repaired. The patient made a good recovery. From the first application of electricity to the uterus the headache which had been almost constant for several years left her and never returned. The hæmorrhages and dysmenorrhœa are also cured.

Case II. was a married lady from Holyoke, Mass., who received only 10 + galvanism of 150 mm., and who then left for home. On the train labour pains came on and the tumour, larger than the previous one, was expelled, and she has since remained perfectly cured. She refused to lend him the tumour so he was unable to show it.

#### **Angio-Sarcoma of the Skin.**

Dr. F. J. SHEPHERD showed this case, a report of which will appear later.

#### **Cerebro-Spinal Meningitis.**

Dr. JAMES STEWART and Dr. C. F. MARTIN read the report of a case of this disease, and demonstrated under the microscope the meningococcus of Weichselbaum found in various organs. (See the March number, page 149.)

Dr. J. G. ADAMI said that the question had been asked as to how the meningococcus reached the brain. In this disease many observers had found them in the nasal passages, lungs, and bronchi, and it was likely that the disease started in the respiratory tract. In such a case they probably found their way into the meninges through the nasal sinuses.

### **Two Cases of Suprapubic Cystotomy with Unusual Features.**

Dr. JAS. BELL reported, very briefly, the case of a man on whom he had attempted to do a suprapubic lithotomy, but found that there was absolutely no preperitoneal space. A careful dissection was made and a small incision made as low down as possible, which went directly into the peritoneal cavity. The wound was closed, and two weeks later the calculi were removed by lateral perineal incision. The patient was a strong, well nourished and rugged French-Canadian labourer, *æt.* 39. He had had gonorrhœa at 16 years of age, from which time he had always had urinary symptoms. He had had another attack of gonorrhœa at 34 years of age. His symptoms had been much worse after the second attack of gonorrhœa, and had become very urgent during the past two years. He had a left inguinal hernia, for which he had worn a truss from boyhood, and at the age of 19 he had had a suppuration in the right groin which discharged externally for four or five years. The question was whether these pathological conditions in early life could have modified the distribution of the peritoneum in the lower zone of the abdomen, or whether the condition was simply an anatomical abnormality or irregularity.

Also, the case of a man, *æt.* 54, an unmarried farmer of good habits who had forced a head of green timothy hay into his urethra on the 19th July, 1897. Efforts were made to extract it, but without success. The bladder was opened above the pubes on the 8th of January, 1898, and the foreign body removed. It was about three inches long and encrusted with phosphatic deposit, so that it was as large as the middle finger. It broke up very easily, and there was some difficulty in washing out all the fragments. (Specimen shown.)

The patient made a good recovery.

Sir WILLIAM HINGSTON said that the first case showed the necessity of taking great care in avoiding the peritoneum. Two days before he had performed the same operation and found the peritoneum at least three fingers' breadth from the pubes. He asked Dr. Bell why he did not use the lithotrite.

In reply to Sir Wm. Hingston, DR. BELL said that he preferred lithotomy to lithotripsy in this case, as he felt there would be

trouble in crushing so as to make a clean removal of the organic foreign body. As it was, with a wide open wound in the bladder there was great difficulty in removing all the particles of hay seed and phosphatic accretions.

**Some Experimental and Clinical Observations on the Use of Antiseptics in the Peritoneal Cavity.**

Dr. J. CLARENCE WEBSTER read a paper on this subject, which will be published later.

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*Stated Meeting, March 4th, 1898.*

ROBERT CRAIK, M.D., PRESIDENT, IN THE CHAIR.

**Uræmic Intoxication, with Special Reference to its Pathology and Treatment.**

Dr. C. A. HERTER, of New York, gave an address on this subject, which will be published in the May number of the JOURNAL.

THE

# Montreal Medical Journal.

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

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## THE NEURON.

We are glad to see that Prof. Michael Foster, assisted by Prof. Sherrington, has recently brought out a new edition of that volume of his text book which deals with the central nervous system, and that in it he has embodied some of the principal results of the chrome silver and methylene blue methods of staining.

We looked with interest to see what stand he would take with regard to the nomenclature of the nerve cell, which has been getting somewhat confused. He follows Waldeyer in applying the term "neuron" to a complete nerve cell, including its processes. He divides the neuron as follows: 1. The nucleus. 2. The cell body, for which he proposes the term perikaryon. 3. The processes. He divides the processes into: 1. The axis cylinder process, which may also be called the neuraxon or simply the axon; it is usually single and forms the axis cylinder of a nerve fibre. 2. The so-called protoplasmic processes or, as he prefers to call them, the dendrites. Of these most cells have several, and, after a short course, they usually end in branches quite near the cells. He tells us that the dendrites usually carry impulses into the cell body, while the axons conduct away from the cell. He describes the usual ending of the axon in an arborescent tuft (the "end brush" of some writers) in the neighborhood of the body or dendrites of some other cell. For this relation between the axon of one cell and the dendrite or body of another cell he proposes the term "synapsis."

We hope that these or other suitable terms will soon be accepted and uniformly used by all writers on the subject, as at the present time it is often hard to know what significance an author wishes to be attached to the terms he makes use of. This state of affairs may, in part at least, be traced to a presidential address by Professor Schæfer at the annual meeting of the Neurological Society in 1893. In that

address he took issue with Waldeyer on the latter's use of the word neuron for the whole nerve cell and expressed himself in favor of applying the term to the axis cylinder process alone. In this use of the term Schaefer has been followed by the American text book of physiology. This is especially unfortunate, as the American text book is one of the few books accessible to students which deals with the recent work on the nerve cell.

There is one point on which we wish Professors Foster and Sherrington had expressed themselves more fully, and that is the proper terms to be applied to the various parts of the spinal ganglion cell and its T shaped process. There is no difficulty in naming the nucleus and cell body. The branch of the T turning up towards the spinal cord evidently bears the two most essential characters of an axon in that it becomes a nerve fibre, and carries an impulse away from the cell; but when we try to name the branch coming up from the periphery we meet with a difficulty, for, like an axon, it forms a nerve fibre, and yet, like a dendrite, it carries impulses towards the cell body, not away from it.

Foster does not express himself definitely on the term to be applied to it. Schaefer and the American text book consider the vertical limb of the T an axon with two branches, of which one descends to the periphery and the other ascends to the cord, but in calling the descending branch an axon they ask us to admit that we have here an axon differing from all others in that it carries impulses towards the cell body.

Much of course depends on the definitions we apply to our terms, but a very similar problem has been faced and dealt with in connection with certain cells of the sympathetic ganglia in the intestinal canal. These cells were described by Cajal as possessing several axons, but Dogiel has shown that while one process is distinctly an axon, the others, if traced to their terminations, may be seen to have the characters of dendrites, with the exception of being somewhat longer than most others, and he consequently classes them as dendrites. His conclusions have been confirmed by Huber on this side of the water. Some of the dendrites of sympathetic ganglia have been shown by Dogiel to assume a close resemblance to ordinary non-medullated nerve fibres, and Huber claims with much reason that the peripheral branch of the spinal ganglion cell is also a dendrite.

As to the nature of the vertical arm of the T process, this may be regarded either as a fusion of the axon and dendrite, which has taken place in course of development, or else as an extension of the cell body

If we accept these views, then we must admit that a dendrite may, under certain circumstances, become an axis cylinder of a nerve fibre and must modify our definitions accordingly, but we no longer have any known exception to the rule that dendrites carry impulses into the cell and axons carry them away to the neighborhood of some other cell.

These questions with regard to the proper use of the various terms should be discussed and settled as soon as possible, for while uncertainty exists it is almost impossible for the busy practitioner to get such clear ideas on the subject as is desirable even for his clinical work.

The fact that the newer histology is important to the clinician is referred to in a recent address by Sir William Gowers as follows:—

“Such facts as these are essentially practical. They enable you to form more clearly and more adequately that visual picture of the disease which is before you, the ability to construct which can be cultivated and increased so much by use and practice, and which enables a man to obtain a much more clear conception of what there is in the individual case before him, to forecast more accurately its future course, and to discern with precision by what means that future course may possibly be modified.”

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### THE BRITISH GOVERNMENT AND VACCINATION.

As most of our readers doubtless know, for several years now there has been in the Old Country a ferment with regard to vaccination, and for years a Royal Commission sat inquiring into the subject in all its aspects and examining a host of witnesses. That Commission collected together a mass of most valuable material, too much, in fact, for the ordinary individual to thoroughly grasp, and when eventually it brought in its report some of its recommendations appeared to the medical mind to be logically far from strong. Now, acting on their recommendation, the Home Government has, after considerable deliberation, brought in an amendment to the law with respect to vaccination, and the new clauses introduced are worthy of some little consideration and of possible application in this country.

Previously vaccination was compulsory, and those whose children were not vaccinated before they were three months old were liable to be brought before the courts and fined. For so long as the children were not vaccinated, for so long were the parents liable to repeated conviction and repeated penalty. Naturally, those who conscientiously objected to the process were by these proceedings elevated to the rank

of martyrs, and among the more ignorant of the population there was a constant agitation against the law. As it stood, the law, if it was to be of use, did not go far enough. If it is essential to the welfare of the community that every individual be vaccinated, then the only logical procedure to invoke against those refusing is either to banish the offending family from the community or to vaccinate the children despite the parental opposition. Either of these courses is opposed to the sense or want of sense of the people, but it is politically a grave mistake to bring in any legislation which affords people the cheap comfort of being martyrs. The new amendment enacts that no parent should be fined more than once for non-compliance with the law. Add to this, where the family is too poor to pay for vaccination, the public vaccinators are required to employ only glycerinated lymph, and this not, as in the past, at central stations in each town, to which the mothers have to bring their babies, but the vaccinator is to perform the operation at the home of the child. This liability to only one fine, the personal influence of the visiting vaccinator, and the lessened trouble to poor parents, will, it is hoped, serve to overcome nearly all the opposition to vaccination which has been manifested under the old law. Finally, whereas it was before obligatory to have the child vaccinated during the first three months, the time is extended to twelve months.

This extension of the time, while advantageous in some respects, presents also certain disadvantages. It is beneficial in that, under the old system, the time to perform the operation was liable to coincide with the development of various infantile eruptions, which might assume a serious aspect and which were frequently ascribed to the act of vaccination. Thus given a longer life period during which the operation may be performed, the vaccinator has more chance of being assured against such complications. On the other hand, after the ninth month children are becoming active, creeping about and using their limbs vigorously, and undoubtedly the area of scarification and eruption cannot be kept in as cleanly a condition as it can during the earlier months of infancy. On the whole, though, we believe that the experience of those who are most conversant with children and the diseases of children will be in favor of this extension of the time.

The most satisfactory step forward in this new legislation is the prominence now given to glycerinated calf lymph. In a recent retrospect in these pages this subject of the employment of glycerinated calf lymph was discussed at some little length. It is almost unnecessary to say that where vaccination is made a public duty it is an instrument of great force in the hands of the public vaccinators

to be able to assure all parents that the material used by them is absolutely pure and free from danger of setting up disturbing symptoms, and to take the stand that if any complications do ensue, then those complications are due not to the inoculated material, but to want of cleanliness. But over and above this, it seems to us the duty of governments which enjoin vaccination, that they should, so far as in their power lies, compel the use of a pure and uncontaminated virus. We are now in a position to state that a virus which contains extraneous micro-organisms is an adulterated virus, and as governments rightly visit with considerable penalty the adulteration of food stuffs, even more ought they to attempt to suppress the employment of material which may possibly lead to conditions of disease. It is true that with ordinary calf lymph employed when fairly fresh and with all due precautions as to cleanliness, complicating rashes and disturbances are rare; nevertheless we cannot overlook the fact that such complications may possibly ensue, brought about by the contamination of the lymph itself. The addition of glycerine to calf lymph results surely, after an interval of a few days, in the death of such contaminating microbes, the vaccine thus becoming a pure material. Now that in the Old Country and upon the Continent, in France and Germany, the use of such lymph is enjoined by the governments, and here on this Continent, the health boards of New York and Chicago have already taken up the matter, the time has come for our provincial boards of health and the Dominion authorities to give this matter serious consideration, and we trust that without delay they will act in a matter of such public importance.

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#### THE FORTHCOMING ELECTION AND THE REGISTRAR OF THE COLLEGE OF PHYSICIANS AND SURGEONS OF QUEBEC.

The agitation in favor of reform in the mode of representation at the College progresses steadily, and now there can be no doubt that if the interest that has been taken in the subject continues, the July meeting of the members will lead to a thorough and radical change in the method of conducting affairs, but, as we already say, the interest must be kept up to the last moment, and inasmuch as, according to the present methods, the proxies of those absent from the meeting can be made to play so prominent a part, it is absolutely necessary that there be no lack of attendance, and that members make sure that their proxies are in proper hands.

And here, it seems to us, is a very serious aspect of the proxy problem. It is, under any circumstances, a matter calling for reform, that



the Registrar of the College into whose hands all the proxies must pass for certification should himself, although a paid official of the Board of Governors, be one of those whose election is dependent upon a vote cast at the election. That such should be the case places that official in a most unfavorable position, for if it so happens that on the day of election proxies are found to be invalid, either from incomplete payment of dues or from any other cause, this opens a way to accusation against that official, that he has for personal reasons neglected to notify members concerning their standing, and so is a party to the forfeiture of the members' privileges. This is the slightest of the charges that might possibly be brought against such a paid official, whose tenure of office depends upon the present system of voting, and we propose in a subsequent number to refer to other phases of the same obvious source of danger.

Altogether the principle of having the Registrar selected as at present is thoroughly faulty: as in the Old Country in connection with the General Medical Council, so here in this Province, the Registrar should be a permanent official whose position should in no wise be affected by the voting of the members; indeed, it is not necessary that such official should be a member of the profession, for his position is strictly that of Acting Secretary or Recorder of the proceedings of the College. Obviously, it would be better that he possessed no vote upon the Board. Indeed it may with truth be said that the disfavor with which the College is now viewed by the profession and the present agitation for reform, have been wholly and entirely brought about by this primary piece of mistaken legislation, whereby the paid Registrar canvasses for re-election every third year, and is himself an active member of the Board. We would therefore strongly urge upon the members of the profession in this Province the advisability of introducing a further reform at the forthcoming meeting in July, and of modifying the status of the Registrar.

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#### INTERPROVINCIAL REGISTRATION.

There seems to have arisen some misapprehension in regard to the question of inter-provincial registration. This is especially evident to some physicians who have gone lately to British Columbia under the impression that they could get a license there on presentation of their Province of Quebec license. This is very unfortunate and has resulted in some hardship and whoever is responsible for thus misleading young doctors should have informed himself more correctly. The question of inter-provincial registration is an all-important one and is growing in

favor, but is not yet an accomplished fact. As the law stands to-day, no one can obtain a license to practice in British Columbia without passing the examination of the British Columbia Medical Council and paying a fee of one hundred dollars, unless his name was on the Imperial Medical Register on or before the 30th June, 1887. The next examination will be held in Victoria on the 3rd May, 1898. No permits to practice can be obtained in any other than the regular way, as indicated above.

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### MEETINGS OF SOCIETIES.

The meeting of the American Medical Association will be held this year at Denver, Colorado, on June 7th. The following form the local Committee of Arrangements: Chairman, W. Graham, M.D.; Vice-Chairman, B. A. Fisk, M.D.; Secretary, W. A. Jayne, M.D.; Assistant Secretary, C. E. Edson, M.D.; Treasurer, J. T. Eskridge, M.D.

Dr. J. M. Beausoleil, President of the Canadian Medical Association has received the following letter, extending to its members an invitation to the Denver meeting:

#### THE AMERICAN MEDICAL ASSOCIATION.

DENVER MEETING, JUNE 7TH, 1898.

Committee of Arrangements,  
306 McPhee Building,  
DENVER, Colo., March 15, 1898.

DR. J. M. BEAUSOLEIL,

President Canadian Medical Association, Quebec,

MY DEAR SIR,—I am requested by the local Committee of Arrangements for the coming meeting of the American Medical Association, which will be held in Denver on June 7 to 10 next, to extend to you and the members of the Canadian Medical Association a cordial invitation to attend this meeting. Great interest is being taken throughout the United States, and this promises to be one of the most successful meetings of the American Medical Association which has ever been held. Special trains are being arranged from many of the Eastern cities to bring the delegates to Denver at that time, and the railways are heartily taking up the matter and promising enthusiastic co-operation to make the occasion an unqualified success. The opportunity will be an unusual one for those desirous of seeing the great health resorts of Colorado and the Rocky Mountains under favorable circumstances and at very much reduced cost. Delegates from Canada may feel assured that the members of the profession in Denver and Colorado will heartily welcome them to this meeting, and will do all in their power to make their excursion an enjoyable one. Visitors from medical

societies outside of the United States are invited to register without fee, and to exercise all the privileges of membership, except, of course, that of voting. We hope that the Canadian Medical Association will be represented by a very large delegation.

Will you please see that some notice of this invitation is sent to the members of the Association throughout the Dominion, so that they may feel assured of a hearty welcome if they come and are properly introduced by your Society.

I remain, dear sir,

Yours very truly,

(Signed)

EDMUND J. A. ROGERS (McGill),  
Chairman Committee on Foreign Invitations.

## Obituary

### SIR RICHARD QUAIN.

With Sir Richard Quain has passed away a figure which has been an important one in English medical circles for now fifty years, one which was unique in professional and social life in London. During this period there have been physicians more eminent, physicians more fully occupied in practice, but not one who has lived on the same terms of cordial friendship with many of the most distinguished men of two generations, and very few who, through their social influence, have been able to serve the other members of the profession to the same extent as he has done. He was, in short, a type of the fashionable consulting physician of the day. Endowed with excellent common sense, with a clear insight into men and things, and with steady and unceasing industry, he at the same time possessed the geniality and good nature of the Irishman, and, added to these, a ready power of conversation, a very fair gift of the Irishman's ready wit, and an abundant fund of stories and reminiscences. Thus trusted and sought after in the consulting room, his presence was ever welcome in society. And thus it was that he numbered among his intimate friends such men as Carlisle, Landseer, Maclise, Millais, Dickens, Foster and Sir Théodoré Martin. A host of others might be mentioned.

Born at Mallow, in the county of Cork, in 1816, he was, when fifteen years old, apprenticed to a surgeon apothecary at Limerick, and at the end of his apprenticeship, there being great distress then in Ireland, was received into his uncle's tannery. But when times began to mend he turned again to medicine and entered as a student at University College, London, where two of his cousins were already upon the medical teaching staff. He had there a brilliant career, and in 1842, when he proceeded to the degree of M.D., he was the only one of his year to receive honors in medicine, obtaining the gold medal and a certificate of proficiency. Settling in London, he rapidly obtained the reputation of being one of the most capable young physicians of his day.

The *Times* gives a good instance of his acumen: "Quite early in his career he was requested by the then coroner for Middlesex, the late Mr. Wakley (the founder of the *Lancet*), to make a post-mortem examination in a case which attracted considerable notice at the time.

A man who for some months had been in a despondent frame of mind came one day to his wife and displayed to her a piece of paper labelled 'arsenic' and said that he had swallowed what it had contained and that it was 'all over with him.' The man was taken to a hospital, where the resident officers applied all the most approved remedies for arsenical poisoning with great vigour, but the man died in spite of them. The druggist from whom the parcel had been procured said that the man had asked for arsenic, and that in consequence of his manner and appearance cream of tartar had been supplied under an arsenical label. A quantity of arsenic was, nevertheless, found in his stomach. Not satisfied with this, Dr. Quain pursued his enquiries, and found that no arsenic had passed out of the stomach into the intestinal canal. He inferred, therefore, that what was found had been introduced by a stomach pump or some similar means after death had occurred, and it was ultimately shown that this had been done by the resident medical officers of the hospital, who seemed at last to have some notion that the case was not one of arsenic poisoning at all, and who had endeavored to conceal the error into which they had fallen. The acuteness with which Dr. Quain suspected the truth, and the skill with which he brought it to the test of experiment, were much appreciated and exercised an important influence in confirming the reputation which he had gained as a student."

Unfortunately, perhaps, for Dr. Quain's reputation as a teacher, he was never attached to any large teaching hospital, but he readily came to the fore in appointments connected with the business of the profession. In 1860 he was selected by the Queen and Council to be a member of the Senate of the University of London, and in this connection he was mainly instrumental in procuring the existence of the "Brown Trust," and he became a chairman of the Brown Institution for the study of the diseases of animals. In 1865 he was appointed a member of the Royal Commission for the investigation of the cattle plague, which had then been recently introduced into the country and had caused a terrible mortality among English herds. He it was who, by his strong grasp of the facts of the position and by his able letters to the press, convinced the country that the only course to be pursued was the absolute prohibition of moving of cattle from infected districts, slaughter of all beasts which had been attacked or exposed to infection, and of all animals imported for food from infected countries. He contributed thus more largely than any other individual to the arrest of the cattle plague. Of the Commission of which thus he had been so active a member, Lord Sherbrooke said that "it was the only Royal Commission which had ever done any good." In 1865 he was

also appointed by the Government to be one of the Crown members of the General Medical Council then recently established. From that date he has been reappointed again and again, and in 1891, upon the death of Mr. John Marshall, he was elected president—perhaps the most influential position obtainable by any English practitioner. At the College of Physicians also he was one of the most influential of the Fellows, and, on the retirement of Sir William Jenner, it was a very close contest between himself and Sir Andrew Clark. Had he not been at the time President of the General Medical Council, he would probably have been elected to this high honor also.

In all his public work in the profession he brought to bear a thorough mastery of procedure and an unflagging attention to detail. He was, for instance, chairman of the Pharmacopœia Committee of the Medical Council and attended assiduously all the meetings in connection with the preparation of the first two issues and of the successive addenda, though during the last twelve months he was suffering from cancer of the rectum and indeed had undergone operation for this. Only once did he allow his failing health to interfere with his attendance at the meetings of the Committee. And in June last, although he had not wholly recovered from the operation in question, he, an old man of 81, presided day after day at the meetings of the General Medical Council. It was the good fortune of the writer to be present at the conclusion of this meeting and to hear Sir William Turner's very touching speech of appreciation. "It is not customary," said Sir W. Turner, "for the Council to award a vote of thanks to its President at the conclusion of its meetings, but we cannot regard this as an ordinary occasion. There is a quality which we are apt to regard as specially characteristic of our race—the quality known by the short but expressive term of 'pluck'—this quality has been displayed by the President in no ordinary way." In acknowledging these thanks Sir Richard made his farewell speech to the Council and to the profession. Affected to tears, he said that what had moved him at all times in his work was the sense of duty. When he had to lay down his office it would be with every wish for the welfare of the Council and of its members.

But such steady and unremitting public work for the good of the profession is, it must be confessed with perhaps a little sadness, of ephemeral value. Such work, while appreciated at the time, is little valued by succeeding generations, greatly as those generations benefit from public work well performed. And is it not a little sad also to think that Sir Richard Quain's greatest medical work, namely, the editing of the great Dictionary of Medicine, will not wholly assure his

remembrance in forthcoming generations. For dictionaries also are but products useful for their day and time, and the fame of this dictionary, and the benefit it conferred upon the profession, has led to other and even fuller and more thorough dictionaries and systems of medicine, and of the various branches of medicine, being published in large numbers, more especially on this continent. None perhaps will ever have quite the success that Quain's first dictionary attained; it is worth while to study Quain in order to appreciate the marvellous advance made during the last fifteen years. Probably no more successful work has ever been published, and yet its second edition in 1894 is already completely overshadowed by the new systems of Allbutt and again of American writers. Already, therefore, the interest of Quain's dictionary is largely historical. There remains but one lasting benefit to the profession with which Quain's name ought always to be associated, the discovery namely, or, to be more accurate, the recognition, contained in a paper delivered to the Royal Medical and Chirurgical Society of London in 1850, of Fatty Degeneration of the Heart and the important part played by this in cardiac failure. In this he performed good and lasting work. In other respects, hard as he worked and hard as he strove to do what he considered to be his duty, and great as was his influence upon his contemporaries, it may be questioned, looking at his life from the outside and from a distance, whether Quain accomplished for the profession all that one with his singular opportunities might have accomplished. Much as he did, he might have accomplished more. Obtaining very early in his career influential positions in the leading medical bodies in Great Britain, he was perhaps throughout too much of an official and too little appreciative of the power that lay in his hands to ally himself to those who had liberal and progressive views.

But granting this, he is an interesting study of the popular and influential consultant imbued with a love for work for the profession and with a conscientious desire to be of service.

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#### NEW BOOKS, ETC., RECEIVED AND NOTED.

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