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ON THE STAGES AND FORMS OF SYPHILIS WITH
MORE ESPECIAL REFERENCE TO THE HEPATIC
MANIFESTATIONS OF THE DISEASE.¹

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IT is remarkable how during all these centuries syphilis has remained sharply distinguished from all other forms of human disease, constituting a class apart. There are many other contagious maladies, not a few chronic infectious disorders, and, now-a-days, we are able to group these together; we can recognize common principles governing their course and effects upon the organism and can see, or think we see, a common principle underlying

¹ Delivered at the meeting of the Ontario Medical Association at Toronto, June 1, 1898.

the morbid changes in one or other tissues from the onset of the disease to its culmination—a principle identical in the infant and in the aged. So we can with syphilis—only habitually we do not. We treat and regard it as a something distinct.

Take, for instance, that disease which, in its chronicity as in the lesions which characterize it, most closely resemble syphilis—tuberculosis. From the onset to the end, at every stage, from the primary lesion to the most extensive generalization of the process, we see one morbid change at work, namely, the focal multiplication of the bacilli leading to the development of tubercles. It is true that according to circumstances these tubercles may vary in their characters from a condition in which small cell infiltration is so extensive as closely to approximate to miliary abscess formation, through conditions of so-called epithelioid cell overgrowth to a state in which fibroid connective tissue development is so excessive as to mask everything else, save, perhaps, necrosis and caseation. But the fact remains that we do not sharply differentiate successive stages of the disease, or consider that the successive stages are characterized by the development of specific manifestations. At the most, in one organ, the lungs, we trace such-successive stages of the tubercular process, but we never think of laying down that what is to be made out in the lungs obtains for other organs, and for the body in general. On the contrary, a study of pulmonary phthisis alone has convinced us that the course of tuberculosis varies so greatly according to the interaction of two factors—the condition or reactive power of the tissues, and the virulence of the bacilli—that to attempt to plot out the course of the disease in each case into well-defined stages is an impossibility.

With syphilis it is quite another thing. From Ricord onwards a primary, secondary and tertiary stage have been clearly distinguished, and not only this, but according as to whether the disease is acquired in post-natal life, or has seized upon the individual while in the mother's womb, so do we recognize two different types of the disease.

There is, I take it, no more firmly "fixed idea" in the whole of medicine than that of the absolute existence of these different stages and forms of syphilis. To-day, I do not want to pose as a revolutionist and an iconoclast, for speaking broadly, and regarding the bulk of the evidence before us, I, like all others, must acknowledge the utility of the divisions. But there is a danger in these fixed ideas, in medicine as in all sublunary affairs, and, to say the least, it is of benefit occasionally to enquire whether what is accepted of

all men is so absolutely and entirely fixed and assured as we are accustomed to regard it.

What I am about to say is not novel. The unity of syphilitic lesions has been preached for now more than thirty years, in fact, ever since Wagner pointed out that all such lesions might be referred to the developments of a specific neoplasm. Perhaps Wagner went too far, for there are generalized fibroid conditions, which, as I shall have to point out in connection with the liver, are not directly due to the development of circumscribed neoplasms; but it must be acknowledged that neoplasms or infective granulomata are to be recognized in each stage and form of the disease. Nevertheless, the idea of the sharp demarcation of the different forms and stages of the disease seems to be as firmly planted to-day as it was prior to 1864, and the admirable protest of Nevins Hyde¹ and the writings of others do not seem as yet to have influenced the profession in general.

At the outset, I must point out that it is not even necessary to have any recognizable first stage or cutaneous chancre. We know well that in every case of infection the infectious agent must make an entry from without into the tissues, and in a great number of cases we can discover the point or points of entry, and at such point or points we find evidences of primary local infection, whether on the skin or mucous membranes, and this local infection is strictly comparable with the cutaneous syphilitic chancre. But we also come across cases in which there is a complete lack of evidence of such superficial primary infection; we may find, for instance, the cervical or mesenteric lymph glands affected with tuberculosis without a sign of tuberculosis of the pharynx or tonsils or intestinal mucosa, cases which usually, though mistakenly, are spoken of as "cryptogenetic." What occurs in other diseases must at times occur in syphilis, and in going over my post-mortem records, in which to each case I have subjoined a record of the clinical history of the case, I have been struck several times by observing that, where well-marked tertiary syphilis has been present in the organs, there has not been a sign of old penile or other chancre,² and more than once, in following up the

¹ Morrow's System of Genito-Urinary Diseases, Vol. II., 1893, p. 20, *et seq.*

² In some at least of these cases, without doubt, the same process has happened as occurs occasionally in connection with vaccinal cicatrices, namely, there has been so complete absorption of the cicatricial tissue that the part becomes in the course of years absolutely normal in appearance. This complete absorption, I need scarcely say, is characteristic of primary lesions of mucous surfaces, and is very frequent in the female.

clinical history, by finding that while the patient has freely admitted that he has led a loose life and suffered, it may be several times, from gonorrhœa, he has denied ever having suffered from chancre (vide case III.) Now presumably an individual who had had a hard sore would not wholly forget the circumstance, nor is it rational to urge that a hospital patient, who admits without constraint that he has led a life of excess and suffered from other venereal diseases, would conceal the previous existence of a chancre. Either then the chancre was so small and inconsiderable as to cause no inconvenience, or the virus gained entry into the system without causing any cutaneous disturbance.

In the female this absence of any superficial or recognizable first stage is especially noticeable ; time after time the disease only manifests itself in the secondary stage. I would go so far as to say that the "fixed idea" that there must be a chancre developed at the region of primary infection has led to a thorough and general misunderstanding as to the nature of congenital syphilis. It is a popular fallacy to regard a considerable number of cases in which the father of syphilitic offspring is syphilitic and the mother is apparently free from the disease, as due to the sperm being syphilized, or, if this view be carried to its logical conclusion, it is supposed that the spermatozoon bears with it the syphilitic virus, be it bacillus or whatever the nature of the specific microbe, and introduces it into the ovum at the moment of conception, and thus the offspring develops, syphilized from the start, the mother being and remaining absolutely free from taint. This, as I say, is a popular fallacy. But it is incredible that the germ gain entrance into the spermatozoon, for the spermatozoon being nucleus and flagellum, and scarce anything more, has not the means of ingesting foreign bodies, while we have not a shred of evidence that the syphilitic germ is amœboid and capable of making its way into the spermatozoon.

It is likewise outside the limits of credibility that a virulent organism could be within the minute almost yolkless segmenting human ovum, lying latent in one or other of the cells, the products of segmentation. Such passages of pathogenic microbes on to the surface, and possibly into the eggs, may occur in insects, as Pasteur demonstrated, but the insect's egg contains relatively abundant yolk, and segmentation then may be little influenced by the presence of the micro-organism, provided that this be in the yolk. Even then, I doubt whether the embryo could develop properly, and am inclined to consider that a more reasonable explanation of Pasteur's observations upon the silk worm's eggs is that at a relatively late period

of their development those which come to maturity become tainted either from the surface or from other eggs which have been killed by the multiplication of the germs within them.

If the syphilitic virus gained entry into the unsegmented human ovum, its effects would surely be to lead to the destruction of the ovum. Foetal syphilis must originate at a later date, and although syphilis in the parents may doubtless have its effects upon the ovum and spermatozoa of the same, and lead to constitutional disturbances in the offspring, progressive syphilitic lesions, the true syphilomata, in the foetus and infant are *not* inherited, but are congenital, that is to say, acquired in utero after conception. Or in other words, inherited and congenital syphilitic lesions are two very different things. Thus, to return to the main point, if the mother be without sign of syphilis, and the child be syphilitic, the only satisfactory explanation is that the syphilitic virus has entered into the maternal organism and tissues, and has failed to induce any characteristic lesion at the point of entry, but has, nevertheless, through the placenta and chorionic villi gained an entrance into the foetal tissues; the process arrested in the mother has been developed in the susceptible tissues of the child, and we have here an interesting example of the variability in the manifestations of the disease dependent upon the reactive powers of the tissues.

Were any further word necessary in support of this contention it would be found in the significant way in which the liver is affected in congenital syphilis. Extensive specific lesions of the liver in the acquired disease are relatively uncommon. They are the most common of all lesions in the congenital affection. As Chiari has pointed out, out of 144 cases of congenital syphilis examined by him, the liver was diseased (and that extensively) in 123 cases, or nearly nine-tenths. Were the ovum infected it would be difficult to explain why the liver should thus be especially singled out. When we remember that this organ is the first to receive the blood coming by the umbilical vein, then if the infection originates from the placenta hepatic implication is the natural sequence.

The essential difference between such congenital, or ante-natal, and "acquired," or post natal, syphilis is, that in the former the virus passes immediately into the blood, and so becomes disseminated through the organism, in the latter the dissemination is delayed. The second stage of acquired syphilis is the first stage of the congenital disease.

Again, although as a pathologist not in practice, I have not met with and am little likely to come across the condition, continuing the

analogy between tuberculosis and syphilis,¹ we must, I hold, admit the inherent probability of Kaposi's statement that it is possible to have a primary cutaneous syphilitic lesion, a true specific indurated chancre, not followed by any secondary effects. And, further, it is well established that women who have borne syphilized children, and have themselves shown not a sign of primary or secondary manifestations, may, years after, present unmistakable tertiary lesions.²

Up to this point, therefore, it may be laid down :

(1) That from analogy, as from clinical history and absence of any indications of the same, in sundry cases there may be an absence of the primary cutaneous or epithelial manifestations of syphilis.

(2) That individuals may fail to present either primary or secondary symptoms that are recognizable, and yet eventually develop definite tertiary lesions of the disease.

(3) That where the subject is relatively insusceptible it is possible that the disease may be limited to the primary cutaneous manifestation not followed by secondary lesions.

(4) That, as with tuberculosis so with syphilis, the congenital form of the disease begins at what may be termed the secondary stage of the acquired disease, *i.e.*, the stage of general dissemination of the virus through the organism.

THE RELATIONSHIP BETWEEN SECONDARY AND TERTIARY SYPHILIS.

I would now pass on to consider the relationship between the secondary and tertiary stages of syphilis.

Where, in any infectious diseases, we have widespread eruptions, affecting both skin and mucous membranes, we now feel assured that such eruptions are due either to the irritation set up by the actual presence and growth of the specific germs of that disease in the subcutaneous and submucous layers, or to the irritation produced by the products of these germs growing in other parts of the system. And the more we study infections of which we can isolate the specific microbes (streptococcus and pyococcus infections, typhoid, etc.) the more we find the first of these alternatives in force, and, in the case of syphilitic eruptions, the fact that the cutaneous eruptions are

¹ Every pathologist knows, many from personal experience, how frequent among those performing autopsies are cases of strictly localized cutaneous tubercles not followed by extension. Such primary cutaneous tuberculosis is characterized by its tendency to remain localized.

² Finger, Arch. f. Dermat. u. Syph. 1890, p. 331.

infective affords clear evidence that the specific virus is present in them.

Such generalized infections of the skin and mucous membranes can only be brought about through the agency of the blood stream, or, otherwise, what is termed the secondary stage of post-natal, acquired syphilis, is the stage of general dissemination of the virus through the system by the blood stream, and of the more immediate results of such dissemination. What has been described as the second period of incubation (the interval elapsing between the development of the chancre and the appearance of syphilodermiæ) is the period requisite for the virus to infect and traverse the lymphatic system on its way from the primary lesion into the blood stream, and then to proliferate in the cutaneous and other tissues up to such a point that eventually it produces a reaction.

It is usually held that the syphilitic virus now especially affects the skin and mucosæ, and that the abundant and varied crop of syphilides—of syphilodermiæ—are the peculiar sign of the second stage, gummatous and more fibrous growths being characteristic tertiary developments. Certainly the eruptions are the prominent features of the secondary stage, but it is too much left out of account that in the early stages of generalization of the disease the internal organs may be, and perchance often are, affected. And what I wish more especially to bring before you this evening is this lack of sharp definition between the anatomical changes in early and late generalized syphilis. This lack is well-shown by a study of the syphilitic liver; indeed, it is a study of several cases of syphilitic hepatitis which have been revealed in the post-mortem theatre at the Royal Victoria Hospital during the last four years which has prompted me to select this more general treatment of the stages and forms of syphilis to bring before you this evening.

The reason why tertiary and secondary syphilis are regarded as so widely distinct is not difficult to comprehend. The disease is rarely directly fatal, especially now-a-days, and it is rarely that we obtain an opportunity to study the viscera during the earlier stages. As Jonathan Hutchinson has pertinently remarked: "The visceral pathology of the secondary stage might form a chapter in the history of syphilis which has not yet been written, and for which we possess few data. It is, however, I feel sure, a great mistake to state that there are none to be obtained." In the address from which I take these words, an address which opened a celebrated discussion at the Pathological Society in London in 1876, he pointed out that abundant facts are on record to disprove the assertion that large

gummata are not to be seen in the secondary stage. He noted that two cases of death from syphilitic disease of the heart, which had come under his notice, had both occurred during the secondary stage and presented myocarditis with gummata, and in one of the two there were also distinct gummata in the spleen and in the testes, while he went so far as to state that the best example of gumma in the liver which he had encountered was in an infant.

To bring forward the evidence presented by the liver as to the identity of the anatomical lesions in the two stages, and as to the continuity or unity of the disease, it will be well to discuss the ways in which the liver is affected in syphilis and run over the different forms of specific hepatic lesions.

It is difficult to realize that scarce fifty years have elapsed since it was first clearly established that the liver is affected in any form of syphilis. The chapter in medical history bearing upon the liver in relation to syphilis is of some interest. Hutton and Fallopius and many of the earliest writers upon the morbus gallicus held that syphilitic ulcers, wherever appearing, were the result of a corruption of the humors, the origin of which was to be looked for in the liver, which had become diseased from the action of a volatile contagion. Others held that this organ was the first to be affected consecutively to disease of the genital organs. This was when every disease was regarded as due to a disturbance of the humors, and, the liver being large and of unknown functions, the severity of the disease almost naturally led to the liver being seized upon as the guilty party in syphilis. When autopsies became more frequent the implication of the liver became seriously disputed: Paracelsus denied that it had any role in disease, stating that he had frequently found other organs affected, but had rarely met with any disturbance of the liver. Morgagni, again in the middle of the eighteenth century, but expressed the views of his contemporaries when he denied any relationship between syphilis and hepatic disorders.

THE LIVER OF CONGENITAL SYPHILIS.

Only in 1848,¹ or according to Hutinel and Hudelo in 1847, was there published any serious study of the liver in syphilis, and then it was not the characteristic gummatous liver of the acquired disease, but the enlarged liver of the congenital condition to which attention was called. In that year, and yet more fully in 1852, Gubler described the liver of congenital syphilis, pointing out its enlargement, its firmness and elasticity. He noted that the changes

¹Gubler, *Gaz. des Hop.*, Jan. 1848, and *Gaz. Med. de Paris*, 1852, p. 262.

were often in circumscribed spots only, and here in these very earliest careful studies upon the subject he pointed out that, while the other lesions in the infant were of a secondary nature, the changes in the liver were of tertiary type and allied to the gummatous developments.

Time forbids that I should describe minutely the histological changes occurring in the liver of congenital syphilis. You will find them clearly stated in an article upon diseases of the liver by your distinguished confrère, Dr. Graham, in the recently published Loomis-Thompson System of Medicine, an article which is far and away the best treatise on hepatic disorders by a single individual that has appeared in our language for many years. Suffice it to say that the affected portions of the organ present a combination of the development of minute, somewhat ill defined collections of small, round cells, which we know as miliary gummata, together with a wide-spread development of fibrous tissue, not only along the portal sheaths, but also spreading between the groups of liver cells which present more or less atrophy, in short, a condition of pericellular fibrosis. This fibrosis is in itself what we are accustomed to regard as a peculiarity of tertiary syphilitic manifestations. Yet here it occurs within a very few months of the primary lesion, when cutaneous eruptions and other secondary symptoms are abundant. And not only this, but at times we have appearances more closely resembling the gummata of the acquired disease.

What is the meaning of this general interstitial fibrosis, or more correctly, what is the series of changes which leads to its formation, it is difficult to state with precision. At times it appears to be wholly in excess of any development of the above-mentioned miliary gummata. Indeed, it looks as though it had not been preceded by any characteristic syphilomatous lesion, and the peculiar manner in which the connective tissue development extends between the rows of the liver cells, and becomes pericellular, and *pari passu* the liver cells show evidences of atrophy, would seem to indicate that here we are dealing with, not so much the results of the productive granulomatous inflammation, as with a process of tissue disturbance set about by the diffusion throughout the system of the toxic substance generated by the virus. These toxins lead to the atrophy of the liver cells with synchronous development of connective tissue; in short, the appearances are largely, but by no means entirely, those of a replacement fibrosis.

A somewhat similar condition is occasionally to be met with in the kidney and that in the earlier stages of the disease. The only

further point I need impress upon you here is that this generalized fibroid change may be developed in the earliest stages of the generalized disease, and by no means necessarily indicates a tertiary condition.

In some rare cases this extensive fibroid condition appears to be present with very little evidence of syphilomatous or granulomatous change in the organ. Marchand¹ has recently described and collected together about half a dozen examples of this condition. Curiously enough, this form of cirrhotic liver with atrophy in most of the cases has occurred in one of a pair of twins and that one still-born. It is also associated with evidences of profound hepatic disturbance in the shape of icterus. Marchand's cases are not wholly satisfactory so far as regards the history of syphilis in the parents, but, as he states, it is difficult to explain this remarkable condition of atrophy of the organ with extreme fibrosis, save on the supposition that the cases were syphilitic.

Coming now to the presence of gummata, Gubler noted in his earliest communications that scattered through the cirrhotic areas in the infantile liver were numerous fine paler flecks, which he likened to grains of semolina, and Virchow, studying these, spoke of them as miliary gummata. More and more evidence has accumulated as to the relationship between these minute, ill-defined tubercles or collections of small round cells, and the caseous gummata seen in the acquired disease. The relationship is identical with that between miliary tubercles in the lung, and encapsuled tubercular caseous nodules in the same. In the great majority of cases, the liver of congenital syphilis presents the admixture of a diffuse pericellular cirrhosis and scattered miliary gummata. Sometimes the whole of the organ is affected, at other times the process is observed only in parts, either at the edges or in a portion of one lobe. In this latter case one has circumscribed yellow masses sharply defined from the, in general, congested but otherwise unaffected, hepatic tissue. Sydney Coupland,² indeed, goes so far as to regard these circumscribed masses as enormous gummata. It is, however, open to doubt whether these masses strictly conform to our idea of gummata, although I must confess that it is difficult to define with precision what we include under this term. For myself I am inclined to regard them as more nearly resembling the large nodular syphilomata occasionally to be met with in the adult liver,

¹ Ctbl. f. Allgem. Path., Vol. VII., 1896, p. 273.

² Trans. Path. Soc., London, Vol. XXVII., 1876, p. 303.

where they may be so well-defined as time and again to lead to the erroneous diagnosis of non-infective neoplasms.

There are frequent cases on record in which true gummata have been recognized in the liver within a few weeks after birth. Several French cases will be found quoted by Hutinel and Hudelo¹ in 1890, while Cohn in 1896 quotes several German authorities.² In English literature, I have found cases described by Canton³ (in an infant of two weeks, with numerous small gummata), Barlow⁴ and Hutchinson (loc. cit.).

In Barlow's case the child showed no syphilitic symptoms until it was seven weeks old; it died five weeks later, and upon the upper surface of the liver were several depressed areas, varying in size from that of a pea to that of an almond, one having a slight tail-like prolongation; there were a few also on the under surface. As he points out, from these depressions it is clear that the gummata were, as he terms it, *receding*, although it would seem clear that they presented no central caseous change.

From the above description it would seem that in the liver of the new-born infant, presenting externally evidence of what is known as the secondary stage of the disease, there may be several varieties of syphilitic manifestations:

1. Well-defined gummata.
2. Admixture of miliary gummata, with generalized fibroid change, not affecting the whole organ but forming relatively large circumscribed areas.
3. Admixture of miliary gummata and generalized fibrosis affecting the whole organ, which is in consequence enlarged.
4. Generalized "atrophic" cirrhosis without much evidence of gummata, but associated with icterus, œdema, etc., the organ being granular and definitely contracted.

In other words all the changes seen in congenital syphilis are those which ordinarily are considered to characterize the tertiary rather than the secondary stage of the disease.

There is yet another form of congenital syphilis which has to be noted; the form termed "syphilis hereditaria tardiva" or more correctly, delayed congenital syphilis. Several examples of this delayed syphilis are on record; it is to be made out from them that frequently the cutaneous changes may not show themselves for years

¹ Arch. de Med. Exprimt., 1890, Vol. II., p. 509.

² Virchow's Arch., Vol. 146, 1896, p. 468.

³ Trans. Path. Soc., Vol. XIII., 1862, p. 113.

⁴ Trans. Path. Soc., Vol. XVII., 1876, p. 292.

after birth. Taking up more especially the English literature upon the subject, Henry Morris¹ has described a case of a girl aged 20 with marked syphilitic family history and evidences of interstitial keratitis, who had suffered from sore throat at 12, enlargement of the liver at 18, ascites at 19, and at the autopsy, the liver was found much puckered and deeply fissured as well as altered in shape, while there were several large gummatous nodules imbedded in different parts of the organ. Wills² records a case that seems somewhat more definite, in which a male, aged 22, presented a small dense liver with thickened capsule, which was constricted into lobules by numerous thickened bands of connective tissue, a condition which he could only explain as being due to congenital syphilis. Bristowe describes a condition of gummata in the liver of a boy of 15 which gave way to treatment with potassium iodide, a condition which he could only regard as an excellent example of the results of delayed congenital syphilis; and Osler, in his well known "Lectures on the Diagnosis of Abdominal Tumors," gives two cases which are similar, one of his own, the other which had been recorded by Dr. A. C. Wood in the University Medical Magazine, Vol. II. Both of these cases were in boys of 13, presenting clear evidence of congenital syphilis; in both there was the enlarged irregular liver, which diminished under the action of potassium iodide. A further case in a male, aged 22, has just been published by Post & Councilman.³

It is clear then that congenital syphilis, like the acquired disease, can manifest a tertiary stage long years after infancy, and that the tertiary symptoms when thus delayed are liable to be of the gummatous type with cicatricial contraction. In other words, congenital syphilis may in every respect follow a course identical with that seen in the acquired.

THE LIVER OF ACQUIRED SYPHILIS.

Passing on now to consider the syphilitic manifestations in the disease of post-natal acquirement, it is very interesting to notice that whether we are dealing with cases in which death has occurred within the first year after the disease has been communicated to the individual, or whether we obtain the liver long after the acquirement of the disease, the morbid changes are of the same order, the only recognizable difference being that the longer the time that has elapsed after infection, the greater is the tendency to the development of cicatricial changes with contraction and deformity of the organ.

¹ Trans. Path. Soc. Vol. 21, 1870, p. 214.

² Liverpool Medico-Chirurgical Journal, July, 1892.

³ Boston City Hosp. Reports, 1888, p. 233.

Taking up the hepatic disorders in series, perhaps the earliest disturbance that has been noticed with common frequency is the development of icterus in the early secondary stage. The association has been noticed by several writers. Hilton Fagge, writing in 1867, was able to quote Portal, Ricord, Gubler and Lancereaux upon this point, and noted that Lancereaux alone had collected 21 other descriptions of the connection, and, intermittently, observers have since described the association which is now generally recognized. The last writers upon the subject are Neumann, Joseph, and Uhlmann.

Inasmuch as patients have very rarely died in this stage, it is impossible to state with precision what is the condition, but, by analogy with what occurs in the infantile liver, it may be suggested that there is here a generalized toxic disturbance of the organ, with catarrhal hepatitis, which may or may not lead on to the generalized fibroid state, which has been described in connection with the infantile liver. Indeed, Hilton Fagge¹ has recorded a very interesting case of what he terms yellow atrophy of the liver consecutive to a diffuse change in the organ due to acquired syphilis. The case is that of a female of 23, in which there was a history of syphilitic rash with falling off of hair, and macular syphilides. Jaundice appeared to be of the obstructive nature. The patient became drowsy, then unconscious and comatose. At the autopsy, the liver weighed 46 oz., and was of an opaque bright yellow color, and of dense consistence. The surface was mottled, the left lobe resembled very closely that of the infantile syphilitic liver; it was pale and semi-pellucid, and the parenchyma was replaced by connective tissue; there was no amyloid reaction.

Here then we have the jaundice, associated with the generalized atrophic condition of the organ, which, in the absence of full microscopical description, may be taken to be either closely allied to the atrophic form already mentioned in the infant, or to the general pericellular fibrosis with miliary gummata seen in same. Without deciding positively to which form this case belongs, I would point out that generalized change in the organ is more common than I think is generally recognized.

The gummatous syphilitic liver is so characteristic and so well-known a form of hepatic disease that, now-a-days, it is rarely described, save from previous authorities, and thus in general, once gummata are recognized in the liver not much further interest is taken in the case; thus the old classic descriptions and ideas are perpetuated.

¹ Trans. Path. Soc., Vol. XVIII., 1867.

It is generally laid down that in tertiary syphilis affecting the liver, gummata, whether well marked and caseous, or the cicatrised remains of such with well-formed stellate surrounding of fibrous bands are the characteristic changes in the organ, while a condition of generalized and pericellular cirrhosis is wanting. It must, however, be remembered that even years after the primary infection such cirrhotic change may be recognizable, and not a few cases are on record of such a condition.

In three out of eight cases of tertiary syphilis affecting the liver, which have come to the post-mortem room at the Royal Victoria Hospital during the past four years, there was clear and fairly extensive pericellular fibrosis along with gummatous change. The fibrosis, it is true, was not generalized over the whole liver, the condition more nearly resembled a condition of circumscribed fibroid change seen in the infantile liver.

These three cases are of some interest as throwing light upon the hepatic changes. In one case there was no clear history given of the date of infection.

CASE 1.—Male, æt. 35. The patient became anæmic and emaciated in April, 1895, œdema and ascites supervening, and death occurred early in July. There was albuminuria, and the œdema of the legs had been complicated with an erysipelatous condition which seems to have been directly caused by the hepatic disturbance, for the heart was fairly normal, and the kidneys, although large and white, showed scarce any sign of interstitial change. The liver showed numerous large deep stellate cicatrices with some diaphragmatic adhesions. The organ in general was soft with advanced fatty nutmeg condition. Sections through the cicatrices showed a characteristic gummatous appearance, with large bands of fibrous tissue running deeply. Microscopically, there was a considerable amount of pericellular cirrhosis in the neighborhood of the gummata with much small-celled infiltration. The spleen was large, firm and congested. The stomach presented diffuse submucous hæmorrhages.

I shall return later to consider this condition of small-celled infiltration. Case 5, to be referred to later, showed a similar condition.

In another patient of Dr. J. Stewart the condition was more widespread.

CASE 2. The patient, aged about thirty-seven, was infected fourteen years before his death, and, although himself a medical man, had never undergone proper antisymphilitic treatment on account of

the intense gastric disturbance induced by mercury and potassium iodide. Four years after infection he suffered from gastritis and diarrhoea, alternating with constipation and a condition of gastric disturbance and general malaise, which continued at intervals for the rest of his life. It is to be noticed that there was a frequent development of a febrile temperature. Ascites and jaundice supervening in the middle of October he was tapped ; the fluid collected again, and he died in the beginning of November.

At the autopsy, there was no sign of old ulceration or chancre ; there was well-marked jaundice ; the heart was healthy in appearance, though there was moderate atheroma of the aorta. There were dense bands of adhesions between the diaphragm and the abdominal wall, and the liver was profoundly contracted and small, scarcely passing beyond the middle line. It had a puckered and coarsely nodular surface. The right lobe was especially contracted, presenting frequent and well-marked gummata with surrounding cicatrices so that the surface was broken up into numerous small nodules of the large hobnailed type. On section there were numerous white gummata from two to four mm. in diameter scattered through the liver substance, and, in addition, there were relatively large areas of fibrosis here and there throughout the organ. The spleen was large, turgid, and smooth, weighing 570 grammes.

Upon microscopical examination the organ showed well-formed caseous gummata with a zone of surrounding congestion, together with a very general advanced interstitial fibrosis, somewhat irregularly distributed, in addition to the ordinary fibroid bands of tertiary syphilis. The bile capillaries were richly injected with inspissated bile, and the kidney showed a condition of parenchymatous nephritis.

The interest in this is, that here we have presented to us a progressive syphilitic disturbance not arrested to any extent by specific treatment. The amount of change in the liver was extreme, and, as above mentioned, consisted in the development of numerous gummata, pericellular fibrosis and catarrhal hepatitis, with jaundice. Indeed we have here an example of syphilitic infection of the liver in an active stage fourteen years after primary infection. The appearance of the liver in this case appears to throw light upon what is the true nature of so-called tertiary syphilis. This is not by any means a receding process. While the tendency of the disease is, as it were, to burn itself out, and while in the majority of cases, if properly treated, the virus is completely destroyed in the secondary stage, nevertheless there may be persistence of the virus, and under

favorable conditions the disease may light up again. Here, in this case, the patient enjoyed very fair health from 1888 to 1893. Gastric and intestinal functions were well performed; he increased in weight, and led an active life. During this time the process was certainly arrested, then the malaise and indigestion returned, and the ascites and jaundice which supervened can only be ascribed to the progressive development of syphilitic disturbance in the liver.

The analogy between syphilis and tuberculosis in this respect is perfect. In about 30 per cent. of our autopsies we come upon evidences of old tubercular cicatrices in the lungs, and in the majority of these cases the process is undoubtedly wholly arrested; thus we are dealing with healed tuberculosis. In some, however, we see that the virus is still present in the encapsuled caseous masses, for we can in a certain number of cases cause the disease in guinea pigs by inoculating into them the caseous contents of the old tubercles, and again in some cases we can recognize that these tubercles have been obsolescent and not obsolete, for around them we can make out progressive tuberculosis evidently originating from them. Speaking of these cases in the language which we employ to syphilis, we might describe them as being examples of tertiary tuberculosis, or, to put it otherwise, we include under the term tertiary syphilis two conditions:

1. The cicatrices and fibroid changes which are indications of a previous syphilis now healed and obsolete.

2. The lighting up again of an obsolescent syphilis from old foci in which the virus has remained latent.

The two cases just recorded are examples of the latter condition, while the case which follows is one of several examples of the former.

CASE 3. Male, æt. 49, who had led a wandering life in the South American States, Pacific Islands, and over the world since twenty-five. He had suffered from all the diseases of childhood, gonorrhœa at eighteen, stricture five years later, yellow fever while serving in an American army, small-pox and malaria when he was nineteen, had chronic dysentery about six years ago, was a heavy drinker of spirits, and had been a soldier, a sailor, and of late a backwoodsman; he denied having had a chancre. The cause of death was acute lobar pneumonia of the upper lobe of the right lung with purulent peritonitis.

(Continued in next issue.)

VICARIOUS URINATION (?).*

BY A. T. RICE, M.D.,
Woodstock.

The case, the history of which I wish to bring before you to-day, is of such a unique character that, for a better name, I have appended to it that of Vicarious Urination.

I trust that subsequent discussion by the members present will help to solve what, to myself and other medical gentlemen who saw the case, was somewhat of a mystery.

The patient, *æ*t. 30, daughter of a farmer, of a somewhat nervous temperament and rather weak intellect, was attacked about three years ago with cystitis of two or three weeks' duration, the attack being somewhat severe, there being complete atony of the bladder, necessitating the use of the catheter during that period.

This attack gradually subsided, though considerable tenderness remained, lasting even up to the present time.

One year after this attack she was again laid up with what this time took the form of involuntary twitchings, or spasms, of the whole body, emanating from the dorsal region, over which portion of the spine there was a good deal of tenderness. These spasms were so severe as to confine her to bed for some weeks.

Accompanying this attack there were a number of discolorations of the right leg and thigh extending almost entirely over the limb, but without tenderness. This, after a few weeks, gradually disappeared, and the patient regained her ordinary health.

About one year ago the atony of the bladder returned, and the patient was again obliged to resort to the use of the catheter three times a day, about half an ounce being drawn each time.

During this time her general health suffered severely, the bowels being extremely constipated, appetite poor, mucous patches in the mouth, and breath foul.

*Read before the Ontario Medical Association, June, 1898.

No amount of treatment seemed to have the slightest effect upon these abnormal conditions.

The twitchings or spasms also returned and continued throughout.

About the first of August the feet began to swell slightly, though not sufficient to incommode her to any extent.

At this time a peculiar complication set in, and the main one to which I wish to call your attention.

The secretion of the bladder gradually diminished, but was compensated for by an exudation of fluid from the anterior portions of lower limbs between the knee and ankle. This fluid was voided regularly three times a day, the amount gradually increasing, the average being about thirty to forty ounces per day.

The fluid simply oozed from the skin without any abrasion of the skin or discoloration, or even the slightest œdema being present.

The patient would realize that the fluid was about to begin, and would place her feet upon a stool and a dish beneath the heels.

I happened to be present at one time when it began, and can therefore vouch for the correctness of the statement.

The fluid was of an amber color similar to healthy urine, sp. gr. 1010, an absence of albumen or sugar, had a strong smell of urine upon boiling, with a distinct ammoniacal smell after standing. Examination also showed the presence of uric acid.

After this symptom showed itself the patient's health rapidly improved and became fairly well established, so that she had little to complain of except the inconvenience caused by this peculiar phenomenon.

From my note-book I have taken the following data :

Sept. 21st, 1897. The patient passed three quarts to-day by measurement.

Sept. 23rd. Patient passed seventy ounces this morning at one sitting. This condition until Oct. 2nd, when the patient passed one gallon in half an hour in the morning, followed by one pint at 11 a.m., when it suddenly ceased altogether and began to pass through the urethra, first in small quantities every few minutes, followed by five to six quarts the first night. After this the natural condition gradually became established, but the patient became again very ill, the spasms reappeared, accompanied by headache, swelling of feet, and great swelling of the face.

This condition remained for about a week, when the symptoms gradually disappeared and the patient regained her usual health, which has continued until the present time.

I might say that, during the last two weeks, when the flow was excessive from the shins, the bladder remained quite empty, and the use of the catheter was stopped, as no urine could be obtained at any time.

Question. What was this? Was it vicarious urination? If so, how is it to be explained? Through what channel did it travel? What was the pathological condition?

The fluid certainly stood all the tests for urine, resembled urine, and its elimination from the system through this peculiar channel permitted the patient to live.

Dr. Mearns saw the patient in consultation with me, and I have explained the case to a number of gentlemen, but all are equally at sea with myself.

I wrote a history of the case to Prof. Guiteras, Genito-Urinary Surgeon of New York Post-Graduate School, who took a great interest in the case, but stated that he had never heard of a similar one.

The only one bearing any resemblance to this was one that occurred in the practice of Dr. Clement, of Woodstock.

This occurred in an old lady, in which each winter for six years the secretion of the bladder stopped, and all of the urine exuded through the skin in the form of perspiration. The patient died after the sixth year.

The foregoing is a plain statement of what to me was a unique case, which baffled me from first to last, both as to diagnosis and treatment, and I hope that in the discussion to follow some gentleman may be able to throw light upon a peculiar phenomenon, or will we be obliged to admit that some of the vagaries of the human system are past our finding out?

Selected Articles.

A CONTRIBUTION TO THE STUDY OF HYSTERIA IN THE MALE.

BY DR. SILVIO CIARROCCA.

(University of Naples.)

HYSTERIA is not, as was formerly believed, a disease of the female organism exclusively.

Sydenham, as early as 1799, was acquainted with hysteria in the male; he was, moreover, one of the first to oppose the theory that the uterus was the pivot around which revolve all the manifestations of the neurosis. Briquet, in his treatise (1859) which opened the really scientific period in the history of hysteria, speaks also with much precision of this affection in the male; but the fact was made quite clear by the researches of Charcot, who, by his observations on hystero-traumatism (which his contemporaries had not known or had overlooked), enlarged more than ever the domain of the neurosis, studied by him with so much zeal.

The subject thus passed, I might say, to the order of the day, and works upon it multiplied. Among them I wish to mention those of Batault (1885), who had under observation 218 hysterical men, and those of Michaut (1890), who has shown that hysteria in the male is very frequent, and that it seems to become more so as we learn how to recognize it in the various forms which it assumes. A similar statement is made by P. Marie (1889), who, in his statistical study made at the central office for admission to the hospitals of Paris, says that "great hysteria," that in which the disorders of the sensibility are accentuated, has been observed by him with greater frequency in men than in women, while "common hysteria" is more common in the latter. He remarks also that the majority of the cases belong to the lower ranks of society, especially in the country districts. Charcot, in 1883, observed that the disease draws most victims from the laboring class, from vigor-

ous, robust people, engaged in heavy and protracted physical labor.

The proportion, however, between female and male subjects suffering from hysteria, varies according to different authorities; so that, while Briquet calculates the proportion as twenty to one, Pitres (1891) gives that of two to one. I believe that this great difference in figures depends on the fact that, at the time when Briquet made his observations, male hysteria had been little studied and was diagnosed only in those cases in which it showed itself by quite evident symptoms. In a year that I have spent in the clinic of Prof. Bianchi, out of many hundreds of patients, I have seen only two hysterical men, but many hysterical women, but I am inclined to think that Pitres' ratio is less than it should be. And the reason thereof we must look for, not in the sexual difference of the two organisms, but in the different resisting power of the system in general and of the nervous system in particular. What is, however, more important is the identity of the circumstances under which the hysterical diathesis, as the French call it, reveals itself in the two sexes, and the identity of the manifestations. As in the woman, so also in the man, hysteria appears most frequently at puberty, although there have been described cases of this neurosis in children (Goldspiegel) and in old people (de Fleury). Yet, according to some authorities, male hysteria would present some characteristic feature. The influence of heredity, for example, would be more manifest in hysterical men than in women; of thirty-one patients, observed by Batault, twenty-six belonged indisputably by their antecedents to the neuropathic family, and Bitot (1890) writes that, out of twenty-two cases examined by him, heredity was quite clear in eighteen, who came from ancestors that had suffered from the most different nervous diseases. In the manifestations of hysteria in man, moreover, there would be seen a certain fixity, which may last a long time and thus give rise to some doubt as to the diagnosis and prognosis (Charcot). Very often in the cases of male hysteria there would occur the association of this neurosis with neurasthenia: Bodenstern indeed has observed in four years one thousand two hundred and twenty-four cases of hysteria, of which one hundred and twenty-two were in men of different professions and trades, and in them he noted both hysterical and purely neurasthenic symptoms.

If I have thought the following case worthy of notice, it is not because of the appearance of the hysterical manifestations in a male; but because they present particular groupings from which considerations of a general character arise.

Errichiello G., of Antimo, unmarried, unable to read or write. His mother was very nervous, and for some time has been subject to convulsions, which depend especially on anger or fear. Two brothers died of convulsions, a younger sister of measles. At a tender age he often got a decoction of poppy to procure sleep. At the age of thirteen years he had typhoid, lasting for more than two months. At this time began the symptoms which the patient refers to his nerves and head. Sleep was often disturbed by bad dreams ; often awoke with a start. After some time there was added a diffuse headache, in the exacerbations of which he experienced a horrible sensation as of pins entering his brain. As a result of these sufferings there ensued a change in his disposition, so that, being apprenticed to a shoemaker to learn that trade, he was dismissed for his inattention and neglect. At home he showed himself capricious, often disobeyed his mother, and every now and then gave himself up to incomprehensible soliloquies. Profiting by the little he had learned, he began to mend old shoes, working along the public road in the neighborhood of Naples. In this wandering life he began to use wine to excess, and practised onanism. Three years ago, during the night, while tormented by a troublesome cough, without other cause, he had a convulsive attack, preceded by a feeling of nausea, pain in the stomach, constriction of the throat, and not followed by a loss of consciousness. After that there followed a period of relative calm up to last September, when one evening the patient, without apparent cause, had a convulsive attack similar to the first. From that time the convulsions were repeated more frequently, at longer or shorter intervals ; the last attack, in December, being the most violent. In this attack Errichiello bit his father who was trying to restrain him. After some days' rest he wished to again start out on one of his trips. His father accompanied him, fearing some accident. Indeed, while he was working one day the poor fellow tried to cut his throat with one of his tools, but was prevented and brought to the asylum the 9th January, 1897.

Present condition.—Normal development, good state of nutrition. Ears unequal and placed at different levels. Normal development of the genital organs ; these are deeply pigmented. The interdigital space between the fourth and fifth fingers of the hands is much greater than normal.

He cannot stand on one foot with his eyes closed. His gait is awkward ; the flexion of the knee is greater than normal. His speech is slow, whimpering ; every now and then he stutters, which is not at all congenital, according to the father. In the field of the

special senses we note a considerable bilateral concentric narrowing of the field of vision. The perception of colors is disturbed. The tendon-reflexes are normal.

Psychical examination.—He knows he is in the asylum and thinks that his father accompanied him here to cure him of a disease of the nerves from which he has suffered since childhood and which has caused displeasure to his parents. Asked about the attempted suicide, he replies : “You must know it is not I, it is my head. That beast, the devil, entered my brain and ordered me to kill myself.” He has some difficulty in collecting his thoughts at times. (Then follows a detailed account of his condition at various times up to October 18th.)

It is not my intention to discuss this case diagnostically ; such a discussion would have a purely scholastic interest. I shall observe in the first place how far the hereditary influence is apparent in our patient. Direct heredity is frequent in hysteria, and, according to Briquet, half the hysterical mothers give birth to hysterical children. Liability to convulsions is one of the nervous manifestations most frequently transmitted to offspring (Féré), and the Errichiello family is a classical example of this, as, of three sons, two died at a tender age of convulsions, and the third is hysterical. In him the neurosis, latent up to the age of 13 years, reveals itself after an infection. The part which infections play in the production of the neuroses is certainly important, but I believe that their effects are subordinate, at least in the greater number of cases, to the individual predisposition. Grasset (1896) and Marie uphold the theory that general diseases, especially the infectious, determine, in and of themselves, the affections of the nervous system, including hysteria. If it were so, ought not every febrile delirium to assume a special form for every infectious disease ; and in the organic diseases of the nervous centres would we not meet a constant relation between the agents of infection and the established anatomical lesions ? Now clinical observation teaches us that febrile psychoses, the deliriums of convalescence, have a very great uniformity, whatever be the causal infection, and that hysteria, consecutive to the most varied infectious diseases and to the most varied poisonings, has no specific feature peculiar to the causative agent. Therefore it is more logical to admit that all these causes act by weakening the nervous system, so as to disturb that merely apparent equilibrium which depends on the neuropathic predisposition.—*Translated from Giornale Internazionale delle Scienze Mediche for the CANADIAN PRACTITIONER by DR. HARLEY SMITH.*

(To be Continued.)

Clinical Notes.

CLINICAL NOTES ON ABDOMINAL SURGERY— APPENDICECTOMY.

BY JAMES F. W. ROSS, M.D. TOR.,

Professor of Gynæcology, University of Toronto; Professor of Gynæcology and Abdominal Surgery, Woman's Medical College; Surgeon to St. John's Hospital, Toronto General Hospital, and St. Michael's Hospital.

FOLLOWING up some clinical notes published in the May number of *THE PRACTITIONER*, it may be of interest to some of your readers to continue the report of some of my recent experiences with disease of the vermiform appendix. The most recent experience strongly emphasizes the view I have already expressed, that if I myself were taken with sudden severe pain in the abdomen, vomiting, tenderness on pressure in the right iliac region, and rigidity of the right rectus muscle, I should ask a surgeon to open my abdomen.

H.F., æt. 26. Was taken with pain in the abdomen on a Monday morning. He took a seidlitz powder, and went to business. All day he felt uncomfortable, and was half doubled with colic. On Monday evening the pain grew worse, and vomiting set in. He sent for his physician, who is a recent graduate, and is imbued with ideas coinciding with my own. Morphia was given to ease the pain. The temperature became elevated to about 100, and the pulse remained about 70. On Tuesday morning he was again seen. Tenderness on pressure was made out in the right iliac region, and there was board-like rigidity of the right rectus muscle. On Wednesday morning I was called to see him in consultation. He had a pinched expression of countenance that was noticed by his wife and by the physician in charge and by myself. He laughed and chatted as if there was not much the matter with him. He said he scarcely considered the consultation necessary. His pulse was 70, temperature 99. There was no distension. The four cardinal symptoms, on which I have so frequently relied, were present, and I told him

that I was satisfied he was safer with his abdomen open than with it closed. He decided to have operation performed at once.

Two nurses were immediately sent to the house, preparations made, and in four hours his abdomen was opened. A large, fluid-filled, inflamed and partially gangrenous appendix was drawn up and removed without difficulty. One patch of lymph, being pushed aside, disclosed beneath a black, gangrenous area, about the size of a five-cent piece, ripe and ready to give way. The convalescence was uneventful.

By such early operation all but a small percentage of doubt as to future progress of the case was eliminated. The probability of death was very much diminished, and a prolonged convalescence and abscess formation were set aside.

In contra-distinction to this, another case, that of Miss C., may be mentioned. Patient took ill on May 10th with sudden pain in the abdomen. Managed to reach home; suffered a good deal of pain on the way. Had severe vomiting. Her physician was called, and found her complaining of tenderness across the abdomen, above the navel. Gradually great tenderness developed in the right loin. Temperature slightly elevated; pulse became gradually increased until, when I saw her, it had reached 120 per minute. The abdomen was considerably distended. I advised immediate operation, although I feared that already the peritoneal cavity had become generally infected. From the point of the greatest pain I concluded the appendix was high up, and back in the loin. Dullness on percussion was made out in the right loin. 2

Abdomen was opened to the right of the right rectus muscle. The general cavity was packed off carefully with gauze. Gangrenous, thickened appendix was found with the tip adherent to the under surface of the liver. Appendix was enormously swollen and lay behind in the loin. An abscess cavity was found that contained about a wine-glass and a half of horrible smelling pus. After a great deal of difficulty the appendix was peeled off from its bed and removed. Operation consumed considerable time owing to the friable condition of the gangrenous parts. Gauze was packed into the cavity from which the appendix had been removed. Rubber drainage tube placed.

The patient was slightly jaundiced at the time of operation and became intensely jaundiced shortly after. The pulse became slow, coma set in, and she died from cholemia. Had not the appendix been adherent to the under surface of the liver this acute hepatitis might have been avoided.

The case demonstrates the fact that we cannot tell where the vermiform appendix is situated, and, further, that the situation of the appendix affects to a certain extent the prognosis of the case. Had this appendix been removed within twenty four or forty-eight hours of the commencement of the attack, who can say that the result would not have been different? The patient and her friends were very much opposed to surgical interference.

3 Miss L., æt. 18. Two severe attacks. An interval operation. A very long appendix found, seven or eight inches in length. Removed in the usual way. An easy convalescence.

4 Mr. E. M., æt. 20. Three severe attacks. Almost lost his life in the last one. Interval operation. Appendix bound down firmly by adhesions, completely doubled on itself. An easy convalescence.

5 Mr. L. had four severe attacks. Never regained his health from the third to the fourth attack. Operation done after the convalescence of the fourth attack had subsided. Appendix found in the pelvis and peeled out, as if it had been a pus tube, from a bed consisting of septically infiltrated peritoneum and intestines. A great deal of difficulty was experienced in peeling out the appendix. It was thickened, friable, and the fat in the meso appendix grey and œdematous. The muscular and serous coats of the ilium at one place were torn through during the process of separation. They were repaired by suture. Appendix removed in the usual way. An easy convalescence.

6 J. T. W., æt. 19. Three attacks, first two slight and last one almost fatal. Operation performed just after the subsidence of the last attack. Found considerable fluid in the peritoneal cavity; appendix running down into the pelvis. It was peeled out with a great deal of difficulty and its tip was found connected with a perforation of the rectum. This was pulled off and the hole in the rectum closed with mattress sutures. Appendix removed in the usual way. Patient made a fairly easy convalescence.

One lesson was taught by this case, namely, that in every case in which the appendix is firmly adherent to intestine, the intestine should invariably be drawn into the wound and inspected to avoid overlooking a perforation. If this had not been done in this case the patient would, in all probability, have died. I am satisfied that the existence of such perforations is a frequent cause of death after the removal of the pus tubes.

Within one week I saw two boys, one in a hospital where he had been ill for eight days, but had been doing well until the eighth day

when he was suddenly seized with symptoms of collapse. When I saw him his pulse was 160, temperature subnormal. I declined to operate, and he died that night. The other boy was thirteen years of age, and had been ill for one week. His symptoms were plainly those of inflammation and probably gangrene of the appendix. On the seventh or eighth day he was suddenly taken, through the early hours of the morning, with pain, and when I saw him, a few hours later, his pulse was imperceptible and his temperature subnormal. He died shortly after, making two deaths seen in one week occurring from perforation of the vermiform appendix.

On the four cardinal symptoms, that I have had printed in large letters below, I have frequently operated, and have never yet failed to find a large, inflamed, and thickened appendix, with gangrene either general or in patches, or a perforation into the mesentery, and a breaking down of the fat in that situation.

(1) SUDDEN SEVERE PAIN IN THE ABDOMEN.

(2) VOMITING.

(3) TENDERNESS ON PRESSURE OVER A DEFINITE POINT IN THE HYPOGASTRIC, UMBILICAL, RIGHT ILIAC, OR RIGHT LUMBAR REGIONS.

(4) RIGIDITY OF THE RIGHT RECTUS MUSCLE.

These are the symptoms of gangrenous inflammation of the appendix. The pinched appearance of the face is very marked in many of these cases. I care nothing for temperature or pulse; they are misleading, and only become affected at a later stage of the disease.

DERMOID TUMOR PERFORATING INTO THE BLADDER. ELECTRICAL CYSTOSCOPY. VAGINAL CYSTOTOMY. ABDOMINAL SECTION.

Mrs. B. Patient had a severe illness eight years ago; illness was obscure. Inflammation of the bladder set in, and hair was passed with the urine from time to time. She was seen by numerous physicians and surgeons, who advised against any operative interference owing to her weak condition.

I saw her first in May in my office, and inspected the bladder with the electrical cystoscope. A stone could be seen lying at the base of the bladder, and from its surface a large number of hairs, encrusted with phosphates, could be readily discerned. Hair could also be seen entering a perforation on the posterior part of the fundus of the bladder to the right side. A few days after a vaginal cystotomy was performed, the stone removed, together with a large quantity of hair and pieces of phosphatic concretions. In the centre of each of these little concretions a piece of broken hair was found. Two weeks after the abdomen was opened, and a small

dermoid tumour was peeled out from the right side and separated from its adhesions to the bladder. A hole in the bladder wall, about the size a five-cent piece, was closed by sutures. For fear that any extravasation of urine might occur, gauze was carefully packed around the opening, and a drainage tube placed in the cul-de-sac of Douglas. Fearing that the drainage might not be perfect through the opening into the bladder below, a self-retaining catheter was passed through the urethra. Notwithstanding the fact that these precautions were taken the wound in the bladder did not heal by first intention, and urine escaped on to the protecting gauze, and came up through the drainage tube. The patient is making, however, an uneventful recovery.

This case proves, to my mind, that suprapubic lithotomy may be performed and the opening into the bladder made through the peritoneal cavity without endangering life to any great extent. If iodoform gauze is packed carefully around and a drainage tube inserted down through the centre of it, and a self-retaining catheter kept in the bladder and frequently changed, to prevent blocking, no extravasation of urine can take place that will prove fatal to the patient.

CHOLECYSTENTEROSTOMY. ANASTOMOSIS WITH THE MURPHY BUTTON.

Miss S. R., æt. thirty. Patient has been suffering from cholemia for two years. The absence of attacks of severe pain pointed to a diagnosis of growth in the common bile duct, or to simple stricture of the common bile duct, rather than to the impaction of a stone. The abdomen was opened below the costal margin, a small growth was found extending up the common bile duct and reaching as high as the junction of the hepatic and the cystic ducts. The mass was soft and elastic. The liver looked in a healthy condition. One portion of the Murphy button was placed in the gall-bladder and the other portion placed in the small intestine and the two were joined together. Care was taken to protect the parts in the neighborhood from contamination. The patient made an uneventful recovery from the operation, but a certain amount of jaundice still continues. The button passed on the sixteenth day.

In all these cases I placed long loops of thread attached to the intestinal side of the button in the intestine. The traction on these threads, produced by the flow of fecal matter over and around them, prevents the dropping back of the button into the gall-bladder, and the *first evidence of the presence of the button at the rectum is given by the extrusion of these threads during defecation.*

Mr. B., æt. sixty-nine. Suffered for twenty-five years with gall-stones, and has been jaundiced two years. Notwithstanding his advanced age I advised operation. A diagnosis was made of obstruction of the common bile duct by stone. The abdomen was opened below the costal margin on the right side, and the omentum found firmly adherent to the under surface of the liver. This was peeled off and the gall-bladder gradually brought into view. It was found to be contracted and thickened. A stone was felt in the duct and was "milked" up with the finger and brought out through an opening in the gall-bladder. Two stones were removed in this way after they were broken up by needling. A needle was passed into them much as we pass it into a piece of ice when we desire to split it up into small pieces. The stones cracked readily. Fearing that the duct might not be, or remain, pervious, I concluded to anastomose the gall-bladder with the colon.

I have already reported one case of anastomosis made between the gall-bladder and the *colon*, in which the stone was *left* in the common bile duct. In that case the patient suffered no inconvenience from the loss of bile from the small intestine, and has remained in perfect health since the operation, now three years ago.

To complete the anastomosis with the large intestine, in the case under consideration, was a difficult matter owing to the extensive adhesions present. One portion of the button was placed in the large intestine. After several unsuccessful attempts the two portions were finally approximated and locked. The patient is making an easy recovery. The jaundice is rapidly disappearing, and no doubt the button will make its appearance in a few days.

Progress of Medicine.

OBSTETRICS

IN CHARGE OF

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AND

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ASSISTED BY

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PAINFUL MENSTRUATION—CAUSES AND TREATMENT.

In reviewing the subject, Lawrence (*Int. Jour. of Surg.*, Vol. X., No. 30) presents the following conclusions :

1. Painful menstruation is not a disease, but merely a symptom found in various pelvic diseases.

2. Those classifications which place it as a disease are misleading and should be discarded.

3. The physiology of menstruation, a thorough knowledge of pelvic pathology, and a broad, careful habit of study and thorough case-taking, are necessary in order that menstrual pain be rightly construed.

4. Many of the cases, due to the uterus, tubes, or ovaries, may be cured in the early stages by simple means, whereas neglect places them in a position demanding serious operative treatment.

5. Painful menstruation in a sterile patient is strong evidence that there is tubal inflammation with occlusion of tubes.

6. Operative procedures should be reserved for those cases in which there is a positive pathological indication; neurotic and anemic cases being treated by other and more appropriate measures.

7. As a symptom menstrual pain is often of such grave import that it should always receive the most painstaking study. If this be

the rule, many a case will be cured without operation.—*Amer. Med. Surg. Bulletin.*

DYSMENORRHEA

Dr. H. Talley states (*Phil. Polyclinic*) that a mixture of caffeine, potassium bromide, and tincture gelsemium is of much value in the treatment of dysmenorrhea. This should be administered for a few days before menstruation.

THE PHYSIOLOGY OF THE PUERPERIUM.

Brutzer has carefully studied the material of the Breslau Maternity Hospital to decide the question whether prolonged rest in bed exerts a favorable or unfavorable influence upon the health and well-being of the woman. He examined the 974 cases as to pulse, temperature, general condition, and involution of the genitals, and concluded that prolonged rest in bed is not desirable. He recommends that the puerpera should leave bed about the fifth day, contra-indications, of course, being absent.—*American Journal of Obstetrics.*

Jardine, in discussing aseptic midwifery, contends that antepartum douching is necessary if there is any purulent or putrid discharge from the cervix or vagina, or if any operation is to be performed, as high application of the forceps or turning. Post-partum douching is needed in cases of post-partum hemorrhage; when the labor has been prolonged; when the hands or instruments have been introduced into the uterus; if the fœtus be putrid; if there has been any purulent discharge, or if the parts have been lacerated to any extent.

VOMITING OF PREGNANCY TREATED BY OXYGENATED WATER.

Gallois and Bonnel (*Bull. Gén. de Thérap.*, March 23, 1898) reported to the Société de Thérapeutique the results of this treatment. Hayem and Pinard had advised inhalations of oxygen for the same purpose; but, as the oxygen could not always be procured in gaseous form, they tried water containing ten or more volumes of oxygen gas (peroxide of hydrogen, H_2O_2). They administered a tablespoonful in a litre of water, given with wine and drunk during meals. They note that two tablespoonfuls of oxygenated water to the litre leads to an unpleasant metallic taste. They do not think the cure results from suggestion, because it did not follow when the dose employed was a teaspoonful to the litre. As a rule,

cure is complete in two or three days. Vomiting due to gastric disease is not improved, nor has the treatment any effect on heartburn. In pure cases of vomiting of pregnancy they had only two failures. The method was also tried with success in the vomiting of phthisis. —*British Medical Journal*.

PASSAGE OF SUBSTANCES FROM FŒTUS TO MOTHER.

Lannois and Brian (*Gaz. Hebdom. de Méd. et Chir.*, March 3, 1898), having had under observation a patient with grave symptoms of albuminuric origin, in whose case the symptoms suddenly disappeared on the death of the foetus, though the latter was not expelled till seventeen days later, made some experimental inquiries, from which they concluded: (1) That substances (such as salicylate of soda, iodide of potassium, and methylene blue), injected into the foetus, pass through the placenta, and can be detected in the tissues and urine of the mother. (2) This experimental fact supports the view already advocated by Lannois, that normal excretory products of the foetus pass through the placenta to be eliminated by the maternal organism. (3) In cases of renal insufficiency these waste products of foetal life can therefore, in part, contribute to the maternal auto-intoxication, and consequently can play a part in eclampsia and other accidents associated with the albuminuria of pregnancy.

PUERPERAL INFECTION.

(a) Contact of the physician or nurse is the most frequent cause; (b) make as few vaginal examinations as possible in obstetric practice; (c) omit the ante- and post-partum douche as routine practice; (d) at the first appearance of puerperal sepsis give the parturient canal one thorough disinfection; (e) be sure not to overlook localized pelvic inflammation which may require a major operation; (f) use stimulants fearlessly, employ injections of normal salt solution, under the skin, into the rectum and intravenously, and try the administration of nuclein; (g) before employing an antistreptococcal serum be sure that you have to deal with a pure streptococcus infection.

R. C. NORRIS.

The most constant and earliest symptom are elevations of temperature, rapid pulse and relative or absolute insomnia.

FERRE.

For the occurrence of sepsis in child-bed the attending physician must usually hold himself to blame. Practically all causes of infection are within control, and puerperal sepsis is a preventible disease.

CHAS. JEWETT.

DANGER OF DELAY.

In seven cases of cancer, in which the disease was of more than six months' duration before operation, none was alive two years after operation. In seven cases, where the disease was of six months' or less duration before operation, six were alive two years afterward.

CHAS. A. REED.

The introduction of the hand into the uterus after labor is a risk to be avoided if possible. It is the habit of membrane which are wholly within the uterus and have not yet been cast off spontaneously. (We have not for many years forcibly pulled upon a strip or piece of membrane, either not yet separated or held by uterine spasm. Our rule has been to tie a thread around it where it protrudes through the vulva, and ask the nurse to pay particular attention to it. It is usually cast off in one day—always within two. ED.).

CHAS. JEWETT.

Every obstetrical case should be considered a surgical one. If there is any difference between the two, it is that the obstetrical case should require a more *rigid* antisepsis than the surgical one.

A. F. A. KING.

That bane of past gynæcological history, the ruthless and unnecessary sacrifice of useful generative organs, has been, and doubtless will be, more perfectly remedied as more scientific and conscientious endeavor on the part of the physician to make accurate diagnosis gains ground. At the same time, and for the same reason, the exploratory incision is rapidly becoming comparatively a thing of the past.

YEATMAN WARDLOW.

Since the spring of 1895 I have invariably made an effort to retain the ovaries even in those cases under my care in which it has been necessary to remove the uterine tubes and the uterus. The result of this has been a remarkable diminution, and in some cases complete absence of the distressing nervous symptoms of the menopause.

HOWARD A. KELLY.

LARYNGOLOGY AND RHINOLOGY.

IN CHARGE OF

PRICE-BROWN, M.D.,

Laryngologist to Western Hospital; Laryngologist to Protestant Orphans' Home.

CONTROL OF NASAL HÆMORRHAGE.

E. B. Gleason (*Laryngoscope*, March, 1898) describes two methods of controlling nasal hæmorrhage, which he has practised successfully, the object being to occlude the posterior naris without the use of Beloeg's snare. In the first he takes a long slip of muslin, $18 \times 1 \frac{1}{2}$ inches. This is soaked in cosmolin or albolin and folded about three inches from one end over a probe, and pushed through the nostril into the posterior naris—the short end next the septum. The long end is again folded near the ala and pushed into the sac just formed, and the packing deeply repeated until the bleeding cavity is filled. When the gauze requires to be removed gentle traction upon the free end will gradually draw out fold after fold without producing irritation.

The other method is by taking a large, loose piece of absorbent cotton, soaking it in a fifteen volume solution of peroxide of hydrogen and pressing it through the inferior meatus to the posterior naris, as in the first method. If necessary, smaller pledgets of cotton, dipped in the peroxide, could be packed in front of the larger piece. The packing in either case should not be removed inside of twenty-four hours, and then, if necessary, removed.

CYSTS OF THE FLOOR OF THE NOSE.

Brown Kelly (*Jour. Laryn. Rhin. and Otol.*, June 1898) adds a report of three more to the very small number of cases of cysts of the floor of the nose, which have so far been recorded. As no full account of the affection has heretofore been published Kelly, together with the history of his cases, gives a sketch of the disease.

It always occurs in females. At any rate, the twelve cases up to the present time reported have all appeared in women, the ages being between nineteen and fifty-eight years. The site of formation, likewise, is always the same, being the outer floor of the nostril, anterior to the inferior turbinated body, and just behind the union of the skin with the nasal mucous membrane. The appearances within the nose vary only in degree. When the cyst is small it forms a grayish hemispherical eminence about the middle or outer half of the floor of the nose. As the sac enlarges it extends backwards and also downwards into the incisor fossa, but very rarely toward the septum.

The views as to etiology are largely speculative; but it has usually been considered as the development of a retention cyst, probably the result of inflammatory action.

As to treatment, when the cyst is small, incision or aspiration, with or without the injection of an irritant, will suffice. If the discharge continues the application of caustics or the destruction of the living membrane of the cavity by galvano-cautery may be called for. When the cyst becomes large, its excision from the gingio-labial fold would be required to produce a cure. In two of the cases reported by Brown Kelly, simple incision was all that was required. In the third, incision was followed by return, and the cyst was eventually excised.

SUPPURATIVE FRONTAL SINUSITIS TREATED BY THE OGSTON-LUC OPERATION.

Gordon King (*Annals of Otol. Rhin. and Laryn.*, Feb. 1898), after giving a resumé of the symptoms and diagnosis of the various forms of sinusitis from each other, lays stress upon the advantages of the Ogston-Luc method of operation above all others in cases of frontal disease.

The technique is simple. After having shaved the eyebrow, and rendered the field of operation as aseptic as possible, the first incision may be made in two ways. By Ogston's method an incision is made along the inner third of the orbital arch, just below the supra-orbital ridge, and extended to the distance of a centimetre obliquely downward along the root of the nose. By Luc's method a straight horizontal incision is made along the inner third to the median line. From this point a vertical incision is carried down to

the root of the nose. This method is adopted in order to reach both frontal sinuses if necessary. In either case the incisions are carried down to the bone, the bleeding points ligated, and the periosteum detached and retracted to expose the bony wall of the sinus. The opening into the bone may be made by electric drill, crown-trephine or gouge and mallet. The opening should be about the size of a ten cent piece, or large enough to admit of free illumination by reflected light with space enough for manipulation of instruments. The cavity having been evacuated of pus, the distinctive feature of the treatment comes next,—“*Careful curettage of the sinus and removal of all fungus granulations and diseased mucosa.*” This is done by a small Volkman curette. Every nook and cranny of the sinus is thoroughly curetted, special care being given to the fronto nasal canal as the peculiar site of pyogenous granulations. A large communication is thus made with the nasal cavity. It is customary also to gouge out a portion of the floor of the sinus, near its posterior thin part, even entering, in some cases, the ethmoid cells to make the opening large.

Before inserting the drainage tube through the nose a twenty per cent. solution of chloride of zinc is freely applied to every part of the cavity. Iodoform is then insufflated and the wound carefully sutured. The tube is usually taken out in from eight to fifteen days.

RHEUMATIC AND GOUTY AFFECTIONS OF THE THROAT.

Watson Williams (*Laryngoscope*, April, 1898), quoting the words of Lemon, says: “The causes of rheumatic affections of the throat differ in no respect from those of rheumatic affections occurring in other parts of the body; nor can it be said that there are any distinguishing characteristics of rheumatic pharyngitis, tonsillitis or laryngitis.” That a large proportion, however, of the cases of acute and chronic pharyngitis and laryngitis are of rheumatic origin is proved by the results of treatment, and also by the fact that the pains are sharper than in simple inflammation. Trudenthal and Heeyngs and Thomas have also demonstrated that a peculiar form of shallow ulceration of the pharynx, which sometimes occurs, is directly of rheumatic origin. These ulcers are typical and heal without cicatrization under anti-rheumatic treatment. Prior to treatment, in cases where ulceration has not developed, the pain, stiffness, swelling, and hyperæmia of the pharynx and larynx can only be positively distinguished as rheumatic in origin by the

presence of rheumatic symptoms in other regions of the body. In these cases response to treatment is the only possible guide.

In laryngeal rheumatism there is always danger of the crico-arytenoid articulation becoming affected, with consequent impairment of movement of the vocal cords.

In some countries gouty affections of the throat are even more common than rheumatic affections. The symptoms are very similar, though the pain may be more intense. Small tophi have been seen on the vocal cords and at the crico-arytenoid joint, though this condition is exceedingly rare. Gouty deposits in the laryngeal mucous membrane have been diagnosed as cancer.

When rheumatism or gout have been correctly diagnosed as the pathological cause of the throat disease, the only local treatment should be in the form of mild, soothing sprays. Internally, for rheumatism, salol, salicine, or the salicylates may be given; while for gout, colchicum and its preparations, iodides, vichy water, etc., with suitable diet and hygiene.

A CASE OF CONGENITAL WEB BETWEEN THE VOCAL CORDS.

Sir Felix Lemon (*Brit. Med. Jour.*, May 28, 1898) reports this case as coming under his observation at the age of sixteen years. The child's cry had been weak and hoarse all her life, accompanied by more or less stridor during inspiration. This improved as she grew older, but had been getting worse again for some time before Lemon saw her. Physically she was small, but well formed. On examination, there was a symmetrical slightly-reddish, triangular membrane connecting the anterior two-thirds of the vocal cords. The free border was crescentic and somewhat thicker than the rest of the web and perfectly white in color. In attempted phonation the vocal cords came almost together, the web folding beneath them. Hence the passage was limited to a small oval opening directly in front of the posterior commissure and arytenoids.

As there was danger from the progressively-increasing dysprœa, operation became necessary. Intra-laryngeal webs of this kind are always dense, tough, and difficult to cut; and, after several unsuccessful attempts to excise it by means of different laryngeal knives, he decided to operate with the galvano-cautery point. The first operation was to pass the platinum tip at a white heat through the centre of the web near the anterior commissure. After waiting several days, during which there was but slight reaction, the perfora-

tion also remaining open, he repeated the puncture. This was done at regular intervals until the web was practically destroyed and the vocal cords left in almost a natural condition. The voice improved and the dyspnoea disappeared. Unlike the usual result, after attempted excision, there was no return of the web.

EXTIRPATION OF LARYNX AND ŒSOPHAGUS.

Garré (*Munch. Med. Woch.*, May 3, 1898) reports three cases of malignant disease, all operated on. First, a man, aged 43, the whole of the larynx was extirpated, the œsophagus being dissected from the larynx. Good recovery with no return two years later. Second, woman, aged 49. The entire larynx and large piece of œsophagus were removed. The cancer had commenced in the œsophagus. No return four months afterwards. Third, the larynx, 5 cm. of œsophagus, and 5 upper rings of trachea, were all excised. Patient recovered from operation, but there was early recurrence in the glands.

Garré believes that improved technique, the use of Trendelenburg's cannula and Haun's cannula, together with improved sanitary position after operation, have had the effect of materially reducing the death rate.

PARALYSIS OF THE ABDUCTORS IN PROGRESSIVE ORGANIC DISEASE.

J. MacIntyre (*Jour. of Laryng., etc.*), May, 1898, deals with Herr Grossman's views upon this subject, as expressed in the "Archives of Laryngology and Rhinology." Grossman has attacked the views of Sir Felix Lemon, an abstract of which was given in the March number of THE PRACTITIONER, and MacIntyre deals briefly with the whole subject. To state the case succinctly, Lemon, after seventeen years of the most careful clinical, pathological and experimental work, claims it as a law, from which there is no deviation, that in general paralysis of the larynx the abductor muscles—the posterior crico-arytenoids—are always affected first. This view has been widely accepted by laryngologists, but not by all; and with it Herr Grossman takes decided issue. In a long and exhaustive article, covering eighty pages, he claims that Lemon's position is not proven, and that the law of primary abductor paralysis cannot be maintained.

While MacIntyre does not take sides with either view, he speaks of the difference in the treatment of the subject by the two men

Lemon's views are founded equally upon clinical and experimental research ; Grossman's largely on the latter. This latter he thinks is a matter for disappointment, as the two branches of inquiry are equally important in all true scientific investigation. Grossman, founding his conclusions largely upon experiments upon animals, is prepared to admit the greater vulnerability of the abductor over the adductor muscles, as a general rule, while he will not admit it to the dignity of a law. On the other hand Lemon affirms that there is not a single well-authenticated case on record in which it has been shown by post-mortem examination that, in progressive organic lesion of the motor nerves of the larynx, the adductors had been primarily affected.

PEDIATRICS.

IN CHARGE OF

W. B. THISTLE, M.D., L.R.C.P., Lond.,

Lecturer on Clinical Medicine and Diseases of Children, University of Toronto; Physician to
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Woman's Medical College.

AND

W. J. GREIG, B.A., M.D.

INTESTINAL CATARRH—CONVULSIONS—SUDDEN DEATH.

James Carmichael, Edinburgh (*Pediatrics*, December, 1897), under the above headings, relates the case of a child brought into the hospital in convulsions associated with intestinal symptoms. Improvement was steady and the child was considered to be progressing favorably, when on the tenth day the temperature rose rapidly followed by death. No cause could be made out. The opinion of the author is that death was due to auto-intoxication from the intestinal tract. He then devotes a short space to the causes of sudden death in children, mentioning hyperpyrexia *per se*; asphyxia, due to collapse of the air vesicles in a healthy lung where there is pleural effusion on the other side; laryngismus stridulus; marasmus, producing subnormal temperature and collapse; internal capillary hæmorrhage the cause of which is obscure.

INCUBATORS FOR INFANTS.

Editorial (*Pediatrics*, January, 1898.) Statistics vary as to the number of prematurely born infants, from five per cent. to twenty per cent. being given. At the Paris Maternity Hospital in one year there were 641 premature children, and amongst these the mortality was thirty-two per cent., that of the other children being eight per cent. The chief desideratum is an even, warm temperature. Mention is made of the old-fashioned devices for this purpose. About sixty years ago Dr. Crede, of Leipzig, constructed a box with double

metallic sides; the space between could be filled with hot water so as to maintain an even temperature. Dr. Tarnier, the designer of the modern conveyer (broiler), received the idea from the artificial conveyers at the "Jardin d'Acclimatation" for the rearing of poultry. During last summer an incubator show was held in London, and there has been erected in Kensington a structure where weakly children can be nursed and kept in new and model conveyers. As yet incubators have only been available for the rich, but it is proposed to establish in London and other large cities incubator stations from which, in answer to messages, incubators will be promptly dispatched to whatever place they are needed.

PASTEURIZED MILK AS A FOOD FOR INFANTS.

(*Pediatrics*, January, 1898.) Heating to 170° F. did not destroy the toxins, nor was their production prevented. The bacterial contaminations of milk can be divided into three groups: (1) The lactic-acid-forming group; (2) the butyric-acid-forming group; (3) the peptonizing bacteria. The first group is very active in causing gastro-intestinal disorders, and requires sterilization at 200° F. or 212° F. to destroy them. The last two groups are not completely destroyed short of complete sterilization. He described the symptoms of what he called milk-poisoning in children fed on pasteurized milk. Mild cases had a diarrhoea coming on suddenly, with a large number of green, ill-smelling movements of an acrid character, and cured by a dose of oil. More serious cases were those in which the milk was taken well for a time, and then gastro-enteritis of a serious nature developed. He cited a number of cases in his own practice in which the diarrhoea resulting from pasteurized milk had stopped on giving sterilized milk. He claimed that all milk fed to infants should be sterilized at 90° C. or 100° C. for ten minutes, and then put on ice. This would check the development of the peptonizing bacteria. The argument that milk was rendered more indigestible by sterilization had not been proved in his experience. A study of the faeces seemed to show that the digestibility of raw, pasteurized, and sterilized milk was about the same. The author concluded that pasteurized milk was an uncertain and, in some cases, a dangerous food for infants.

In the discussion which followed, the author was supported in his opinion by Dr. A. Caillé and Dr. W. L. Carr, and opposed by Drs. Freeman, Chapin, Dessau, Kerby, and Marbott.

PATHOLOGICAL CHANGES IN THE MIDDLE EAR DURING MEASLES.

Pfingst, Louisville (*Pediatrics*, February 1, 1898), relates a case in which, after the disappearance of the eruption of measles, high fever suddenly developed, and continued high for three days without any apparent cause. The child was sitting up in bed, playing, and complained of no pain. Only once she stated to her mother that she had a slight pain in one of her ears. On the fourth day there was a free discharge of creamy pus from both ears. Bezold has made some investigation into the frequency of ear complications in measles. He made necropsies on eighteen fatal cases of measles. In five of them there had been a discharge from one or both ears but in the other thirteen there had been no ear symptoms except a diminution of function. Post-mortem showed that in every case there was an exudate in the tympanum, consisting of pus cells and fibrin, and always containing some of the pyogenic bacteria. Conclusions: That severe cases of measles rarely run their course without involvement of the middle ear; that the inflammatory process usually runs its course without subjective, and often without objective, symptoms, and that only occasionally perforation occurs.

Editorials.

THE ONTARIO MEDICAL COUNCIL.

THE recent meeting of the Ontario Medical Council was, all things considered, a very satisfactory one. Many of the members still talk too much ; but, on the whole, the discussions were carried on with considerable ability, and with less bitterness than those of former years. Even Dr. Sangster has shown conclusively that he can discuss certain subjects without giving offence to those who happen to differ from him.

One of the most important subjects discussed was that pertaining to Dominion registration. Many of the members have evidently considered the matter very carefully, and fully realize its vast importance. Not only were the discussions on the motions of Dr. Armour and Dr. Britton broad and liberal in spirit, but even in connection with other subjects the speakers appeared always to keep in view the desirability of inter-provincial reciprocity.

That ever restless spirit from Ottawa was again in evidence in connection with his Arts' degree matriculation standard. His long-winded orations on the subject are getting terribly wearisome. A hopeless minority has certainly indisputable rights, but it should endeavor to be merciful. Every man has a perfect right to ride a hobby, but he should refrain from making himself an unmitigated nuisance in connection with the same. Even the "Shades" occupying the "Boat-house on the Styx" are commencing to think that the council should try to make the standard of matriculation permanent for a period of something like eighteen months.

The questions of hospital and lodge practice were freely and fully discussed. Most physicians will agree with Drs. Sangster and Spence that, between the practice of druggists, the sales of patent medicines, free treatment in hospitals, and lodge practice, the medical profession is being encroached upon on every side. There can be no doubt as to the existence of the evils referred to ; but the discovery of a remedy, in the face of the prejudices of the public, is

a very difficult matter. If our citizens generally got imbued with the idea that the Council desired to legislate solely in the interests of the profession, it would at once lose a large share of its influence, and, perhaps, imperil its very existence.

The proposal to reduce the number of collegiate representatives was threshed out with considerable vigor. Of course there is much to be said on both sides, but we question the wisdom of discussing at such length subjects over which the Council has no control. The establishment of this body was an exceedingly difficult matter. It was impossible to please all parties, and a spirit of compromise was necessary. The Legislature did probably the best it could under the circumstances, without claiming to have brought into existence something which approached perfection. The collegiate representatives have, as a rule, been excellent members; and even the most bitter of the "school-men" haters of a few years ago are now willing to acknowledge that they are entitled to considerable respect.

This was the last regular session for this Council. The next election will be held in November of this year. There will, probably, be a few changes, but it is altogether likely that the majority of the present members will come back next year. Although no one man should have a life lease of membership, still a certain amount of experience makes a member more useful. We hope, therefore, that most of those who have become prominent in our medical parliament will be re-elected.

THE INTERNATIONAL ASSOCIATION OF RAILWAY SURGEONS.

THE recent meeting of this association, held in Toronto, was in many respects a memorable one. It was the largest gathering of medical men this province has known. The great majority of members present consisted of surgeons living in the United States, who were attending their first meeting held in Canada. The association was induced to choose Toronto as a place of meeting largely through the efforts and representations of Dr. Bruce Riordan, who promised a warm and hearty welcome on the part of his friends in Canada.

The Committee of Arrangements had the major quantity of work to do in connection with the meeting. Dr. Riordan, as chairman, worked most assiduously for many months, and showed great execu-

tive ability. He received valuable assistance from Dr. Herbert Lamb, the secretary, Dr. R. A. Perry, the treasurer, Drs. Arthur James Johnson, Albert Macdonald, Oldright, Galway and Lamb, and others. As matters turned out it was evident that the arrangements were positively complete in every particular down to the smallest detail.

The city council gave five hundred dollars towards the entertainment of the visitors in Toronto, and the Ontario Government contributed a similar sum for the entertainment of those who went on the complimentary excursion to Muskoka. Mr. Chas. M. Hays, General Manager of the Grand Trunk Railway, was exceedingly kind in many ways, but especially in placing at the disposal of the committee a special train for the Muskoka excursion. Mr. A. P. Cockburn, of the Muskoka and Georgian Bay Navigation, very kindly furnished a boat for the trip on the lakes. Among others who dealt generously with the association were the Niagara Navigation Company, and the O'Keefe Brewing and Malting Co., and manufacturers of the O'Keefe Liquid Extract of Malt.

We know of no purely medical meeting that ever created so much general interest. The complimentary reception on the evening of the first day was very largely attended, and was exceedingly enjoyable. The Hon. Dr. Ross' speech was a gem, and his references to the friendly relations now existing between the Anglo-Saxon races and nations created immense enthusiasm in the audience. We cannot refer to all the entertainments, excepting to say that they were numerous and invariably crowned with success.

We desire to extend our warmest congratulations to Dr. Riordan on his election to the presidency, an honor which all appear to think he richly deserved, and at the same time, to wish for him and the other officers of the association a highly successful meeting next year in Richmond, Virginia.

ONTARIO MEDICAL LIBRARY ASSOCIATION.

THE annual meeting of the Ontario Medical Library Association was held at Dr. J. E. Graham's residence, Bloor street, June 29th, 1898.

The curator's report showed the library to have 4,406 complete volumes (bound and unbound), and 27 journals regularly on file. An unusually large number of books have been donated during the year by Drs. Osler, Graham, Sweetnam, Powell, Grasett, and others.

Professor William Osler, who was present, was then called upon to address the meeting. He said there were three important points to be remembered in the management of a library :

- (1) Get as many good journals complete as possible.
- (2) Keep about one hundred good journals on file.
- (3) Obtain important new books as fast as they come out.

Referring to the best way of maintaining a library, he mentioned two systems : (1) By voluntary subscription ; (2) by an organization of physicians, of which the library is a part. He considered the latter to be the better plan. He advocated the fusing of the different medical societies, and suggested that an annual payment be made toward the library fund, that this organization should have a proper habitation in some central locality, and that it be called the Medical Chambers.

On behalf of the association, the president, Dr. Graham, thanked Dr. Osler for his admirable address, and warmly seconded Dr. Osler's suggestion. The president announced the retirement of Dr. Greig from the treasurership. Dr. Powell stated that all doctors outside Toronto could have access to any books in the library by paying all express charges, subject to required conditions.

Dr. Osler stated that he wished to donate one hundred dollars a year for five years to the library for the purchasing of new books, with the idea of perpetuating the memory of his old preceptor, Dr. Bovell, and he wished this donation to be known as the Bovell Library of the Ontario Medical Library Association. Dr. Graham donated five hundred dollars toward an endowment fund, the interest of which is to be applied towards the purchasing of new books.

The friends of this association have every reason to be pleased with the present position of its library. Its promoters have not received as much assistance from the general profession as they expected ; but we hope in the future they will have no cause to complain in this respect. The generous donations of Drs. Osler and Graham will be very highly appreciated.

ESTABLISHMENT OF A NEW SANITARIUM FOR CONSUMPTIVES.

WE have been requested to give the following outline of a movement now being made by medical practitioners and a few other gentlemen of Toronto to provide a sanitarium for consumptives within a few miles of the city, so that city patients, and

those in the vicinity, desiring to take advantage of it, may be easily visited therein by their own physicians and their friends.

It is the intention to have it near one of the trolley lines which run out of the city, on either of which there are very good elevated sites, and to make it a first-class institution in every respect as relates to general equipment, providing all well-recognized modern means for the most scientific treatment of patients, yet on an economical plan.

It is the purpose of the promoters to provide for the poorer classes of patients, and in all stages of the disease, with the hope of checking its progress in cases even considerably advanced in the second stage, as sometimes has been done, and also to provide a home wherein the last days of hopeless sufferers may be relieved of their distressing symptoms, and made as comfortable as the resources of modern medicine, including, of course, the best of nursing and general care, can make them, and not be a source of danger to their relatives and others.

It is purposed to obtain, if possible, a small farm in an elevated, sunny locality, as free from fogs and dampness as possible, in order both to provide ample room for buildings, on the cottage plan, for the different classes of patients and stages of the disease, and also that some of the patients who would be benefited by such exercise may engage in farm and garden work, and so help to provide the institution with the necessary farm and garden food stuffs, including food for cows, poultry, etc.

We thoroughly approve of the proposed scheme as outlined, and do so all the more willingly because we believe it will not in any way interfere with the success of the worthy institution at Gravenhurst. A properly conducted sanitarium would afford great relief to the general hospitals of Toronto and other parts of Ontario, and much greater protection to the general public.

Meetings of Medical Societies.

TORONTO PATHOLOGICAL SOCIETY.

The regular meeting of this society was held in the Biological Department of Toronto University, April 30th, 1898.

Dr. H. B. Anderson in the chair.

Minutes of previous meeting taken as read, and adopted.

There were no committees to report.

No nominations for membership.

A large number of members was present.

Dr. Peters reported on a case of multiple gall stones.

T. K., æt. 47, admitted to the Toronto General Hospital March 18th, 1898.

His occupation, a farmer. Habits good. Drinks very little water, and scarcely ever perspires. His family history is good.

Personal history: From the age of twenty to the age of forty-one years he suffered from attacks of colicky pains two, three or four times a year. These pains were accompanied by constipation, and were relieved by free motion of the bowels. Six years ago he had a severe fall, injuring the right wrist, and was laid up in bed. Three days after the injury he was seized with intermittent attacks of severe colicky pains. He became jaundiced; stools were gray colored and pasty. This attack lasted two weeks, when recovery was complete.

Since Christmas, 1897, he has suffered from an uneasiness which he referred to the region of the stomach. This prevented his sleeping at times. The pain gradually grew worse, and five weeks ago it began to assume a colicky character. The yellow tint of the skin returned, and the stools again became clay-colored and pasty. There was also great itchiness of the skin.

Condition on admission.—The skin is of a bright saffron yellow. The sclerotics are very yellow, and also the conjunctiva. Abdomen moderately full; the walls thick, but not held tense. The costal and iliac furrows are distinct and equal. Flanks equal and normal.

Liver.—Dulness begins at the fourth rib above and extends to the costal margin, but not lower. The margin is not easily palpated. On inspection a slight fulness is apparent in the right hypochondriac region, and on light palpation a mass can be felt in this region. On deep palpation it can be made out as a tumor about four inches in diameter, and elongated from above downwards. Its internal, inferior and external limitations can be readily made out, but its superior contour is apparently continuous with that of the liver. It is freely movable from side to side, and can be moved from the right flank to a point beyond the middle line of the body. It moves freely on respiration, but cannot be displaced upwards so as to disappear under the liver. The right kidney cannot be felt. There is slight tympanites on percussion over the whole area of the tumor in the dorsal decubitus. In the knee elbow position the tumor comes to the anterior abdominal wall, and is dull on percussion. The urine is in all respects normal in quality and quantity, with the exception that it is loaded with bile pigment. The tumor cannot be felt by rectal examination.

Operation.—An incision was made over the tumor in the right linea semilunaris. On opening the peritoneum it was seen that the tumor consisted of the distended gall bladder, the wall of which was considerably thickened and grayish white in color. It was joined to the liver over its entire surface by dense vascular adhesions, and on the surface of the gall bladder enlarged injected lymphatic vessels ramified. The gall bladder was aspirated, the fluid coming away being of a dirty gray color, but without any bile pigment, and containing a small quantity of mucous and no pus. After washing out through the aspirating needle the gall bladder was opened, and gall stones to the number of 571 were removed. These varied in size from that of a hemp seed to that of a bean, and were whitish-brown in color, most of them being faceted. On examination of the portal area, hard nodular masses could be felt occupying the under surface of the liver and adjacent parts. These nodules were thought to be of a cancerous character. No gall stones could be made out in the common duct nor in the cystic duct.

Since the operation the patient's condition has improved somewhat; the icterus is less marked, but has not altogether disappeared. Bile discharges in small quantities intermittingly from the fistula, but the stools still remain clay-colored and pasty.

SPECIMENS ILLUSTRATING SOME POINTS IN THE PATHOLOGY OF A
TUBERCULOUS ABSCESS. BY A. PRIMROSE, M.B., C.M. EDIN.,
M.R.C.S. ENG. PROFESSOR OF ANATOMY, UNIVERSITY
OF TORONTO.

The specimens presented are from certain cases which have come into my possession in the course of my surgical practice. Whilst in most of these cases a bacteriological examination was made to determine the nature of the case, the features which I refer to chiefly in this paper are in relation to the existence of histological tubercle and the other characteristic appearances observed under the microscope in tuberculous tissue, namely caseation and abscess formation.

We make now a very definite distinction between the pus of an ordinary acute abscess and the "pus" of a tuberculous abscess. In fact the difference between the two is so great that it has been suggested that we are not warranted in describing the fluid contents of a tuberculous abscess as "pus." It has been shown for example that pyogenic organisms will grow luxuriantly in the pus of a tuberculous abscess, whilst they will not grow in the pus which has been previously the seat of their growth. Whilst, however, the so called pyogenic organisms are absent from tuberculous pus we do find dead leucocytes in the fluid, although not so numerous as in an acute abscess. The tuberculous abscess contains a considerable amount of broken down material (detritus) which floats free in the fluid. On examining this material under the microscope it is found to consist of caseous necrotic matter and occasionally, as some of my specimens show, formed elements exhibiting histological tubercle and leucocytes embedded in these masses. The wall of a tuberculous abscess is essentially characteristic: in all its ramifications it is found to exhibit an active tuberculous process. In the sections of the abscess wall the specimens presented show individual tubercles in all stages of development, the caseous material forming a late product. Beyond this area of tubercular tissue is usually found in more or less definite development, a layer of condensed inflammatory tissue forming the outermost layer of the abscess wall.

The etiology of the tuberculous abscess is best understood by studying its development in a tuberculous gland. Thus certain of my specimens illustrate the early stage, where the gland has become involved, and one finds scattered throughout the gland substance a series of tubercular foci, exhibiting the characteristic giant cell surrounded by the so-called epithelioid cells, and surrounding these again

leucocytes. At a later stage may be observed an aggregation of these tubercles; still later a caseous centre is developed in the mass of tubercles; finally liquefaction occurs, and an abscess is formed. Some of my specimens have been made from sections transversely through a small tuberculous abscess, and these exhibit the abscess cavity in the centre surrounded by breaking-down caseous material forming the immediate boundaries of the cavity, outside which one finds tubercles in an active stage of development, and outside this again condensed inflammatory tissue. This inflamed tissue often persists as a thickened gland capsule, the whole of the normal gland structure having been destroyed during the progress of the disease. An abscess may, however, break beyond the limitations of the gland capsule and infiltrate the surrounding tissues, at first a simple peradenitis, then tubercular infiltration and abscess formation may extend to an unlimited extent.

Another point in the development of a tuberculous abscess of importance is regarding the fact that the abscess may be multiple in character. Thus even within the same gland capsule a series of aggregations of tubercles may develop caseous centres, and thus a number of caseous centres may be formed, the centres of which in turn are undergoing liquefaction. These multiple abscesses soon run together in the gland to form a single abscess cavity, but in a specimen presented of a tuberculous kidney it is obvious that here a series of tuberculous abscesses have formed of considerable size, not yet communicating with one another.

Abscess formation is occasionally delayed to a remarkable extent whilst tuberculous disease is advancing. This for example is common in connection with the synovial membrane of a diarthroidal joint. Thus a specimen exhibited shows an enormous thickening of the synovial membrane of the knee joint, removed by arthrectomy, due to tuberculous disease without abscess formation therein.

Lastly, one may call attention to the fact that if a tuberculous abscess be kept sterile, *i.e.*, as regards the entrance of pyogenic organisms, it is capable of resorption. A specimen exhibited illustrates this point. The patient was subjected to the operation of laminectomy for pressure of an abscess upon the spinal cord. One found the abscess in the neural canal and its fluid condition was quite evident at the time of operation; upon opening the abscess in the region indicated one observed that the respiratory movement caused an ebb and flow of the pus into the neural canal. This was accounted for by the fact that the greater bulk of the abscess lay in the posterior mediastinum. Some weeks subse-

quently, the man had died. The wound had healed and all discharge had ceased. The abscess in front of the spine was now found no longer in a fluid condition, but composed of caseous material, which on bacteriological examination was found absolutely sterile. The result might have been attributed solely to drainage, but one must believe that in such cases resorption occurs, and the abscess by this means dries up. Instances are not rare where, without opening the abscess, this resorption occurs, more particularly in connection with tuberculous joint disease.

These facts regarding the developments, the spread and the spontaneous cure of tubercular abscesses are of great importance in determining the proper method of dealing surgically with the pathological phenomena presented.

Dr. Anderson acting for Dr. Bingham presented some tubercular glands removed from beneath the pectoral muscles of a girl of seventeen years. The glands had been present for three months. The temperature was high before operation with marked hectic signs which disappeared after operation.

The sections of these glands showed tubercle bacilli, few giant cells, but epitheloid and lymphoid cells, and well-marked caseation.

He asked as to the method employed in Dr. Primrose's case for demonstrating the tubercle bacillus.

Dr. Fotheringham, discussing Dr. Bingham's case: The constitutional symptoms in this case, which was one of mine, were so very marked as to make me feel certain that suppuration was going on—either that or extensive deposits in the lung. Yet all the glands were apparently unsoftened, unless in the centre. No pus or detritus was found in the axilla. There were no deposits in the chest or elsewhere, so that the picture of hectic fever shown by the patient was due entirely to the process in the axilla.

Dr. Mackenzie in answer to Dr. Anderson's question said that the draining method used in this case was the Ziehl-Neelsen.

He pointed out that a recent author claimed that the inability to demonstrate the bacillus was due to the hardening method, and that by the use of an alcoholic solution of pyrogallol he had succeeded in easily demonstrating the bacillus in all tubercular conditions.

Dr. Peters reported a "case of gangrenous appendicitis."

A. D., age 14, care of Dr. Thom, Woodbridge, Ont. Has been healthy as a rule, but during the past few weeks has not been very well. April 20th, 1898, went to school, but complained of pain in abdomen. April 21st was seen by Dr. Thom. Tenderness over

McBurney's point, slight fever, no vomiting, bowels moved. The next two days he continued to be slightly feverish, and the tenderness increased, and thickness could be felt in the region of the appendix. On the evening of the 24th his temperature was 104, pulse 120. There was very little tympanitis. Rigidity of the abdominal muscles was marked, especially on the right side. A tender swelling of considerable size could be felt on the right side. I saw him first on April 25th at 9.30 a.m. His temperature at that time was 99.35, pulse 88. Expression was very good. Tongue was furred slightly; there was no tympanitis, on the contrary the abdomen was slightly retracted. The muscles were very tense on the right side. A tumor could be felt on the right side one inch below McBurney's point. This seemed to be about the size of an egg, was slightly movable and very tender. Nothing was felt on rectal examination. Abdomen was resonant all over.

Diagnosis.—Appendicitis localized by plastic lymph.

Operation.—Oblique incision two inches long was made over the tumor, which was attached to the abdominal wall by very slight adhesions. The mass felt was tolerably freely movable, and consisted of the tip of a rather long appendix surrounded by a process of omentum, the whole being matted together by inflammatory lymph. After packing sponges around the area of the operation, the mass was delivered from the wound without much difficulty, the momentum was tied off by a double interlaced ligature of silk, and after tying the mesentery of the appendix the latter was amputated in the usual way by making a coat sleeve flap. Abdominal wound was stitched up without drainage, silkworm gut being used. On examining the removed mass, the appendix was found to penetrate it to the extent of about one and a-half inches. On dissecting the lymph and the omentum from the surface of the appendix a cavity containing half a drachm of fetid pus was found subtending a gangrenous area of the tip of the appendix about one-half inch in length, and occupying about one half the circumference of the organ. No foreign body was found in the appendix.

Dr. Fotheringham,—The specimen would seem to be an excellent example of what Professor Adami told us at the December meeting, seemed to be one function of the omentum, that it is instantly mobilized on an alarm of inflammation within the abdominal cavity, and sets itself the task of assisting in the fencing off of the inflammatory process.

Dr. Primrose, discussing Dr. Peters' paper, asked as to the origin and ultimate fate of lymph.

Drs. McPhedran, Parsons, and Allen discussed. Dr. Peters closed the discussion.

Dr. McPhedran presented clinical notes of the following case, Dr. Amyot giving the post-mortem report.

John B., aged 62, a merchant tailor. His health had always been good until September, 1893, when, after being indisposed for some days, he had two convulsions with profound coma, lasting twenty-four hours. He gradually recovered consciousness. Two weeks later, while convalescing, signs of gangrene of the left lung set in, the breath being very offensive, the sputum dark brown, and containing yellow, elastic tissue. The gangrenous area enlarged and he had profuse hæmoptysis. Recovery followed during the winter. In April the signs recurred with free hæmorrhage. These signs of gangrene with hæmorrhage recurred from time to time, until the end of 1894, after which the recovery from the pulmonary disease was complete. In the spring of 1895 he had a slight hemiplegia, affecting the left side, and a few days later an epileptic seizure. These seizures occurred at intervals of a few weeks for some months, but were gradually controlled by bromide, returning if it was omitted. The mental condition became much impaired. There was no improvement until early in 1897, when he regained almost full power in the left side and the mental faculties became greatly improved, although he remained irascible, a condition partly explained by financial losses. He remained in very good condition all last winter. On March 28th last, after a few days of somewhat impaired appetite, he had a profuse hæmatemesis followed by syncope. During the following week the hæmorrhage recurred four times freely, but much less so than on the first occasion. He was greatly prostrated, very pallid, and unable to take food. Weakness increased, the odor from his breath and person became exceedingly offensive. Death occurred on April 12.h.

DR. AMYOT'S REPORT.

Brain. One-half inch from mesial line, right side. A trapezium $1\frac{1}{4} \times \frac{3}{4}$ in. in hardened specimen, looks as though dried. It is depressed; the pia mater is adherent and thinned over this area. It is brownish-gray in color.

On section, a branched cavity, pigmented brownish-yellow at borders, is seen extending from cortex to central portion of brain. The cavity is about two inches long.

On section, the microscope shows what seems to be a dilated vessel. Some non-striated muscle fibre can still be seen. The pigment is

contained chiefly in round cells distributed quite $\frac{1}{4}$ in from edge of cavity, shading off in number. This portion of brain is distinctly smaller than that on left side. In the third division of the lenticular nucleus, right side, the arteries are dilated and surrounded by a zone of pigment.

Lungs. Right lung normal. Upper lobe of left made up chiefly of bands of dense, fibrous tissue, enclosing emphysematous air-cells. The lower lobe is hypertrophied (compensatory), so as to functionate for that side.

Heart. Enlarged and flabby, dilated and hypertrophied. Myofibrosis in left ventricle chiefly, and here chiefly in musculi papillares and immediately underneath the endocardium, particularly near the apex.

Microscopically. Patches of dense fibrous tissues and shreds, accentuations of the normal bands. The cells, many of them, are illy striated, the nuclei being indistinct.

Stomach. An ulcer, about $2\frac{1}{2}$ in. diameter, rather oval in form at the middle of lesser curvature—covered with a greenish grey slough—base thickened, surface raised above general surface. A thin red border.

Microscopically. Glands remarkably well prepared right to edge of ulcer. Ulcer covered by necrotic area. Floor of ulcer shows degenerated bundles of muscle tissue and an excessive infiltration throughout the thickness of wall.

Kidneys. Right one hypoplastic and cystic; the whole mass, about three inches in length, shows only a few tubules microscopically, and nearly all these filled with colloid material. No malpighian bodies. Arteries much thickened. The interstitial tissues much infiltrated.

Left Kidney. Enlarged,—granular with one large cyst one inch in diameter. Cortex, normal thickness. Medulla encroached on by fat. Show active interstitial inflammation. Arterio-sclerosis. Fibrosis of malpighian bodies, many atrophied and some remarkably hypertrophied. Tubules two or three times normal size. The cells show in the hypertrophy, not actually increased in number, but in size. Much interstitial cellular infiltration.

MELANOTIC SARCOMA.

By Dr. Peters.

Mrs. F., aged 43. She was born with three pigmented birthmarks on face, one on the outer aspect of the lower jaw, one on the temporal region, and one just below the eye, all on the left side of

the face. She has always enjoyed good health, with the exception of the trouble from these tumors, and there is no history of new growths in the family. Twenty-five years ago the birth-mark on the lower jaw was removed by Dr. Canniff. She does not think that at that time there was any considerable tumor present. The wound healed, leaving a large, uneven, radiating scar.

Second operation.—About seven years ago a tumor appeared in the temporal region. It grew slowly for two or three years, when it was removed. At the same time there was a small tumor removed from under the left eye by ligature. Six months from the date of the second operation the tumor began to grow again, and was operated upon for the third time, after a period of three years, by myself. At that time the tumor was about as large as a cricket ball, intensely black, and occupying the temporal region of the left side. It was under the temporal fascia, and skin was not adherent, and only involved to a slight extent. A large semi-lunar flap was raised from the surface of the tumor and the whole mass dissected away, including the periosteum. The zygoma was sawn through and the whole of the temporal muscle removed, together with the fascia surrounding it. It was found to have infiltrated the tissues of the neighborhood in small branching processes extending forward under the lower eyelid. All visible nodules were removed as widely as possible. The wound healed throughout, by first intention. The mass throughout was of an intense blackness.

Two years after this a new growth appeared under the inner part of the eye, which grew slowly for a year, and was removed by Drs. Wardlaw and Phillips.

Six months after this a small growth re-appeared in the temporal region, and has been increasing slowly in size until the present. It consists of three nodules; the largest being the size of a marble. Two small nodules are also present under the left eyelid. These were all removed by operation in April, 1898, and are herewith presented as specimens. The microscope shows small spindle-celled sarcoma, with intense pigmentation of both the cells and intercellular substance.

The extraordinary feature of this case is the great length of time during which the melanotic sarcoma has grown without destroying life. It is universally recognized as the most malignant form of sarcoma, and usually terminates fatally within a period of about eighteen months, or sometimes less. This case, however, has lasted some twenty-five years, and has been operated upon five times at varying intervals. The prognosis, of course, remains somewhat gloomy,

but, with early attention to recurrent nodules, there is a reasonable prospect that the patient may, in this case, live many years.

Dr. Wm. Oldright suggested the removal of all moles, as they never lead to any good.

RUPTURED HEART.

By Dr. John Amyot.

Patient, shoemaker, æt. 55.

History. Came to the out-patient department of the Toronto General Hospital on Friday, March 25th, 1898. Complained of pain in the left side, lower end of the sternum, and in the epigastric region. This pain radiated from the lower end of the sternum upwards and backwards to the shoulders. It was more severe on the left side, and continued down the left arm. Pain was pretty severe. His respirations numbered 35 to the minute. This condition had been present for three days. Never had any similar attack previously.

Superficial cardiac dulness slightly increased. Aortic systolic murmur of blowing character, not very loud. Slight friction sound in præcordial region, which did not cease when he held his breath.

Treated for pleurisy and stomach trouble.

Returned to hospital next day and became an in patient. Admitted late in afternoon; not examined thoroughly. At 2 a.m. on Monday, March 28th, sat up in bed, and suddenly dropped over dead.

Autopsy. March 28th, 2.30 p.m., twelve hours after death.

General condition: Good. *Peritoneum:* Normal. *Kidneys:* Small granular. *Liver:* Normal. *Pancreas:* Normal. *Right lung:* No pleural adhesions. Fluid in right pleural cavity not excessive. *Left lung:* No pleural adhesions. Slight excess of fluid in left pleural cavity. No signs of recent inflammation. *Pericardium:* No pericardial adhesions. Pericardial sac distended with a large amount of jelly like clot of a dark red color. Where the parietal pericardium had been in contact with the presenting anterior surface of left ventricle there was a patch of inflammatory exudate over an inch in diameter. *Heart:* Hypertrophy and dilatation of left ventricle. In the central portion of the presenting anterior surface of the left ventricle there is a rupture about an inch and a half in length. The rupture is a ragged slit-like opening, not straight through the ventricular, but obliquely. The coronary arteries are atheromatous. The anterior coronary is plugged by a thrombus just above its bifurcation. Both branches are occluded.

Valves: Aortic valve: Left segment and posterior segment adherent; right segment free. Some recent vegetations on aortic valves. Other valves are normal.

In the pulmonary artery a large ante-mortem clot was found.

The aorta was atheromatous.

In the cavity of the left ventricle over the internal opening of the rupture is a large laminated blood clot which was firmly attached to the ventricular wall. Cultures made from the ventricular wall close to the rupture resulted in the growth of a pure culture of pneumococcus.

The meeting then adjourned.

H. C. PARSONS,
Rec. Secy.

THE LONDON MEDICAL SOCIETY.

THE regular monthly meeting of London Medical Association was held April 18. Present: Drs. Eccles (in the chair), Wishart, Moorhouse, Graham, Roome, Meek, Weekes, Ferguson, MacArthur, MacLaren, Campbell, MacCallum, MacDonald, Bayly, Macklin, Thompson, W. J. Stevenson, H. A. Stevenson, and English.

Minutes of previous regular and special meetings read and approved.

On motion of Drs. Bayly and Roome, Dr. H. A. Kingsmill was elected a member of the association.

Dr. Ovens read a carefully-prepared and instructive paper on "Disease of the Ethmoidal Sinuses," which will appear in next issue.

Meeting closed at 9 20 p.m. to give time for a meeting of all the medical profession *re* building of the new hospital.

On May 9th was held the regular monthly meeting of the London Medical Association. Dr. Eccles in the chair, and present Drs. Hodge, Teasdall, Ferguson, Meek, Ovens, Graham, H. A. Stevenson, W. J. Stevenson and English.

The minutes of previous meeting were read and approved, and, in accordance with notice, the meeting was devoted to pathological and microscopical work.

Dr. H. A. Stevenson presented a cast of the trachea, showing the bifurcation of the bronchi, expectorated by a patient of Dr. Eccles suffering from fibrinous pneumonia. On examination Dr. Stevenson had found diphtheritic bacillus. The patient was a man,

age 54. and robust. Had ordinary evidences of pneumonia. On April 24th, 1898, exudate first appeared on pharynx, not readily removed. On 27th specimen shown was expectorated. In the early stages there had appeared more blood in the sputum than was common in ordinary pneumonia.

In connection with the exhibition one expectorated by a patient of Dr. Hodge four years previously was shown also, which also showed the growth into the bronchial tubes. The patient lived three days after it was expectorated.

A case of tubal pregnancy, occurring in the practice of Dr. Ferguson (will be published in *THE CANADIAN PRACTITIONER*), was reported, and the *foetus* and placenta exhibited.

An inverted uterus with a fibroid tumor was presented, in which all efforts to reduce had been unsuccessful, and a supravaginal hysterectomy had been done. Phlegmasia alba dolens had developed in three days, probably due to the extension of phlebitis present at time of operation.

The brain of a female patient, aged 52, who, eight weeks previously, suffered from an apoplectic seizure, was next shown. She suffered from aphasia and paralysis of right side of face and left leg. Again, on April 8th, another stroke took place, with almost instant death. The dura mater was found adherent; no sign of external hæmorrhage. A smooth cavity the size of a hen's egg was found at the inner side of the left frontal sinus, and a small cavity in the left occipital lobe.

Dr. W. J. Stevenson showed an ununited fracture of the acetabulum in a dog. Also a 7½ months *foetus*, with the amniotic sac unruptured, and the placenta, which had been partial placenta prævia.

Dr. English made reference to two recent cases of miscarriage in which *foetus* and placenta came away together, and the amniotic sac unruptured.

Meeting adjourned at 10.15. without examining the microscopical specimens.

Copied from the minute book by the corresponding secretary,

W. S. MACDONALD,

679 Dundas street, London, Ont.

Book Reviews.

TRANSACTIONS OF THE SOUTHERN SURGICAL AND GYNÆCOLOGICAL ASSOCIATION. Vol. X. Tenth session. Held at St. Louis, November, 1897.

We have frequently had occasion to refer to the meetings of this great society of the "sunny south," which continues to do really magnificent work in connection with the important subject of Surgery and Gynæcology. A perusal of this volume of transactions shows clearly that the meeting of 1897 quite equalled those of previous years. Anything better can scarcely be expected. One of the most interesting features was the exhibition of a large number of radiographs by Dr. Brokaw, of St. Louis. Among the most important subjects discussed were: Surgery of the gall bladder, appendicectomy, extra uterine pregnancy, cystic disease of the mamma, chronic proctitis, pyuria, tetanus, operative treatment for enlarged prostate, symphysiotomy, etc. As usual a large measure of the success of the meeting was due to the untiring efforts of the secretary, Dr. W. E. B. Davis, of Birmingham, Ala.

TRANSACTIONS OF THE AMERICAN ASSOCIATION OF OBSTETRICIANS AND GYNÆCOLOGISTS. Vol. X., for the year 1897.- Wm. J. Doran, Philadelphia, Printer.

The tenth annual meeting of this Association was held in the Cataract House, Niagara Falls, N. Y., in August, 1897, under the presidency of Dr. Jas. F. W. Ross, of Toronto. The volume of Transactions which we have received from the able and genial secretary, Dr. Wm. Warren Potter, of Buffalo, is a very handsome book, and reflects great credit on the printer; while the very full report of the discussions is equally creditable to the stenographer, Mr. Whitford, of Chicago. Many papers of a high order of excellence were read, and many of the discussions following were spirited and interesting. We know of no medical society in America where greater encouragement is given to full and free discussion, and we know of no meeting of the year where the members acquitted themselves more creditably than did those of this society in the colonial parlors of the Cataract House.

THE SURGICAL COMPLICATIONS AND SEQUELS OF TYPHOID FEVER.
 By William W. Keen, M.D., LL.D., Professor of the Principles of Surgery and of Clinical Surgery, Jefferson Medical College, Philadelphia; Vice-President of the College of Physicians of Philadelphia; Membre Correspondant Etranger de la Société de Chirurgie de Paris; Membre Honorarie de la Société Belge de Chirurgie. Based upon tables of 1,700 cases, compiled by the author and by Thompson S. Westcott, M.D., Instructor in Diseases of Children, University of Pennsylvania; Visiting Physician to the Methodist Episcopal Hospital, Philadelphia; with a chapter on the Ocular Complications of Typhoid Fever, by George E. de Schweinitz, A.M., M.D., Professor of Ophthalmology, Jefferson Medical College; Professor of Diseases of the Eye, Philadelphia Polyclinic; Ophthalmic Surgeon to the Philadelphia and other Othopedic Hospitals; and as an appendix the Toner Lecture No. V. Philadelphia: W. B. Saunders, 925 Walnut street, 1898.

A monograph of nearly 400 pages on such an important subject to the profession generally as the surgery of typhoid fever and by so distinguished a member of the profession as William W. Keen always arrests our attention. The subject is not a new one to Dr. Keen. In 1876 he delivered the Toner Lecture No. V., at Washington, on the Surgical Complications and Sequels of the Continued Fevers. Inclusive of the cases made use of in that lecture, he has now 1700 cases which are tabulated most fully, and which "practically include nearly all the cases recorded in the last fifty years."

How large a role the complications and sequels of typhoid play is well shown by the statement of Holscher, that of 2,000 fatal cases tabulated by him only 24 per cent. died as the result of the typhoid infection *per se*, and 76 per cent. from the various medical and surgical complications and sequels.

Chapter III. is devoted to gangrene, a subject which the author declares that neither physicians nor surgeons have given the attention which its importance merits. "One would suppose *a priori* that gangrene would only follow severe attacks, but so large a number of cases have been reported, after relatively mild attacks, that we must conclude the possibility of gangrene in mild cases as well as severe ones. Hence the watchfulness of the physician should never relax by reason of the fact that the case is running a mild course, and that gangrene is an infrequent result of typhoid." The commonest time for this complication is to appear in the second and third weeks.

Chapter IV. takes up the affections of the joints, and Chapter V. those of the bones. Excepting the laryngeal complications and sequels the most frequent are those connected with the bones. In his Toner lecture Dr. Keen had gathered 69 cases. In the twenty years since then he has collected 168 additional cases. One remarkable feature of these bone cases is the viability of the bacilli at such very long periods after the original attack of typhoid. One case is reported where a pure culture was obtained after a lapse of seven years. The tibiae and the ribs appear to be the bones most frequently affected. Though the larynx and

the joints are the two sites of frequent surgical complications of typhoid, in not a single case has the bacillus been found in the joints or the larynx.

Chapter XV. is devoted to intestinal perforation—probably the chapter which is of more interest to the general practitioner than any other in the work. The history of perforation is taken up, the frequency, the age at which it occurs, the date of occurrence, the seat of perforation, the number of perforations, the character of the perforation, the duration of life after perforation, the symptoms, the diagnosis, the dangers of surgical interference, the time of operation, the technique of the operation, etc.

The outlook of surgical interference in these cases is not very encouraging, but it is far from hopeless. Of eighty-three cases operated upon sixteen have recovered, or 19.3 per cent. If, knowing the possibility of recovery, physicians more frequently call in the surgeon, and do so at once, the future will show better results. "When every case of intestinal perforation (except the moribund) is operated upon within twenty-four hours, I believe that we shall save at least one-third of the cases and possibly more." He concludes: "The *treatment* must be bold, but not rash; conservative, but not timid; prompt, but not hasty; thorough, but not reckless."

In the chapter on affections of the gall-bladder, attention is called to the propriety of immediate operation in peritonitis arising from similar perforations of the gall-bladder. Four such cases have been operated upon with three recoveries.

Obviously only a few of the prominent points in this admirable work can be mentioned. The book should occupy a place on the shelves of every practitioner who has even "a liking for surgery."

A SYSTEM OF PRACTICAL MEDICINE. By American authors. Edited by Alfred Lee Loomis, M.D., Late Professor of Pathology and Practical Medicine in the New York University, and William G. L. Thompson, M.D., Professor of Medicine in the Cornell University Medical College, New York. In four imperial octavo volumes. Volume IV.—Diseases of the Nervous System and Mind; Vasomotor and Trophic Disorders; Diseases of the Muscles; Osteo-Malacia; Rachitis; Rheumatism; Arthritis; Gout; Lithæmia; Obesity; Scurvy; Addison's Disease. 1,099 pages, 95 engravings, and 8 full-page plates in colors and monochrome. For sale by subscription. Per volume, Cloth, \$5; Leather, \$6; Half Morocco, \$7. Lea Brothers & Co., Publishers, Philadelphia and New York, 1898.

Medical Items.

AT the last meeting of the American Association of Genito-urinary Surgeons, Dr. James Bell, of Montreal, was elected president for the ensuing year.

DR. WM. OSLER spent a few days in Toronto in June. Honors are still being showered on him, the latest being F.R.S., one of the highest prizes in the gift of science. He is now in Great Britain, having gone with Drs. Roddick and Stewart, of Montreal, to attend the meeting of the British Association.

PROF. ADAMI, of Montreal, was offered the Chair of Pathology in Cornell University, but decided not to leave McGill.

DONALD ARMOUR, B.A., M.B., M.R.C.P., has been appointed Demonstrator of Anatomy in University College, London, Eng.

WE learn, through a letter written to the *Canada Lancet* by our friend Dr. James M. Cochrane, a Canadian graduate, now in London, Eng., that Surgeon-Captain Scott, a graduate of Trinity in 1883, and one of the house surgeons in Toronto General Hospital, 1883-4, has distinguished himself in the army medical service in Africa. In an encounter with the natives he received a serious fracture of the leg, and the *Times* said he "behaved with great gallantry; for, notwithstanding his own injuries, he continued to attend on the others wounded who were brought to him for that purpose."

SURGEON MAJOR NATTRESS has gone to England to report at the War Office. He expects to take a course at Netley Hospital before he returns.

DR. CHARLES W. PURDY, of Chicago, visited Toronto in July, and remained a few days.

DR. J. D. WEBSTER (Tor. '98), has commenced practice in Buffalo.

AT the last general election in France fifty-seven physicians were elected, that is, about one-tenth of the whole number in the Chamber of Deputies.

LORD LISTER was presented with the freedom of the city of Edinburgh, June 15th.

THOMAS B. BENTLY, M.B.—Dr. Thomas B. Bently died at his residence, Sutton West, June 13, aged 49. He received his medical education in the Toronto School of Medicine, and passed his final examination for the degree of M.B. in the University of Toronto in 1869.

THERAPEUTICAL ITEMS.

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