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NOTES ON ECLAMPSIA.*

K. C. McILWRAITH, M.B.

Mr. President and Gentlemen:

No obstetrical subject has given rise to more discussion than this one, and yet a review of the literature on this question leads one to think of the words H. W. Longfellow places in the mouth of one of his characters.

"There are many speculations in literature, philosophy and religion (and we might add in medicine) which, though pleasant to walk in, and lying under the shadow of great names, yet lead to no important result. They resemble rather those roads in the western forests of my native land, which, though broad and pleasant at first, and lying beneath the shadow of great branches, finally dwindle to a squirrel track and run up a tree."

Gentlemen, I am afraid that many of the speculations about eclampsia still lead us "up a tree." And yet much good has been accomplished. Many text books still quote the maternal mortality as 30 per cent., while in a recent number of *Obstetrics*, Stroganow gives a series of 58 consecutive cases without any maternal deaths.

Many facts have been ascertained which must stand, no matter what becomes of the theories to which they have given rise, and many methods of treatment have been devised, each of which seems to have application to a certain number of cases. We do not yet know the pathology of eclampsia, but we know

*Read before the Toronto Medical Society.

enough about it to guide us to a system of treatment and to a selection of remedies. Let us consider the pathological anatomy first.

Liver.—Color more yellow than usual. Commencing fatty degeneration. Small hemorrhages, parenchymatous and subcapsular. Areas of necrosis around the portal spaces. Anemia.

Kidneys.—Kidney of pregnancy—The renal condition which is most likely to give rise to eclampsia. Chronic nephritis—more rarely present. Areas of necrosis. Hydronephrosis (sometimes) uninvolved (in about 5 per cent.—Dührssen).

Spleen.—Enlarged, congested, soft. Areas of necrosis. Hemorrhages, parenchymatous and subcapsular.

Brain.—Often anemic and cedematous. Sometimes hyperemic. Sometimes normal. Emboli.

Lungs.—Usually cedematous. Ecchymoses. Emboli.

Heart.—Amyloid degeneration. Cloudy swelling. Fatty degeneration.

Urine.—Albumen and casts. Diminished toxicity.

Blood.—Increased toxicity of serum. In general an anemia of all the organs.

We notice in the pathological anatomy lesions of a similar character and wide distribution, and this leads us to infer that the noxious agent must be distributed by the blood. Further, when we remember the increased toxicity of the blood serum and the diminished toxicity of the urine we infer the presence of a toxin in the serum, and *toxemia* is therefore our first indication for treatment. What the nature and origin of the toxin may be, we do not yet know. Again we notice the general presence of *anemia*, and this is our second clue to the treatment. The hemorrhages in the organs are supposed to result from the convulsions, and therefore the *control of the convulsions* is our third indication.

Let us now go over the other known facts of the disease, and see what information they give us.

PREDISPOSING CAUSES.

Labor pains.—The convulsions occur ante-partum in 25 per cent., during labor in 50 per cent., and post-partum in 25 per cent. *Obstructed delivery*—Old and very young primipare. *Long retention of excretions.* *Over distension of the uterus.* *Nervous temperament.* *Any peripheral stimulation.* *Recurrer in subsequent pregnancies in about one and one-half per cent.* *More frequent in late autumn and early winter months.* *Convulsions often cease on the death or birth of fetus.*

SYMPTOMS.

1. Prodromal.—(a) Eye symptoms— Amaurosis complete or partial, temporary or persistent (may persist for some weeks—not as a rule permanent). Asthenopia, amblyopia, or diplopia, flashes of light. (b) General Symptoms—Headache, dizziness, tinnitus aurium, drowsiness, nausea, vomiting. (c) Mental.—Depression or excitement. (d) Epigastric Pain—(a) and (b) occur with a fair degree of constancy in about one-fourth of all cases for some hours or some days. (e) Urinary—Alb. casts, diminution of urea. (f) Edema. (g) High tension pulse.

2. Actual.—(a) Convulsions. (b) Fever as case progresses. (c) Edema of lungs. (d) Cerebral-hemorrhage, sometimes long after convulsions have ceased. (f) Frequent high tension pulse.

Nothing in all this list contradicts the conclusions we have already come to, but rather strengthens us in them; and I think we may add one or two things to our indications for treatment. When we consider the influence that labor pains have in bringing on convulsions, it is evident that some treatment should be directed towards them. Our fourth indication then will be the *control of the labor*.

Nervous temperament undoubtedly has a great influence, and we shall, therefore, add the *control of a hypersensitive nervous system* as our fifth indication for treatment.

CAUSES OF DEATH.

Heart failure. Edema of the lungs. Aspiration pneumonia. Exhaustion. Cerebral hemorrhage. Gastric hemorrhage.

The indications to be taken from these are chiefly of a negative character—to avoid the use of remedies which might lead to heart failure or edema of the lungs, and to reduce pulse tension, which is the cause of the cerebral and gastric, hemorrhages.

To sum up, then, we have to treat: (1) A toxemia; (2) an anemia; (3) to control convulsions; (4) to control labor pains; (5) to control a hypersensitive nervous system; (6) to avoid causing edema of the lungs, heart failure, and high tension pulse.

I have no new remedies to offer, but simply a choice of those which have already been tried. The treatment is mainly that which has been taught for some time by Prof. Wright, and which I have had many opportunities of putting into practice during the last three years.

For the toxemia, elimination by purgation with calomel, accompanied by magnesium sulphate in half-ounce doses of the saturated solution. In antepartum cases this saline purgation, with an occasional dose of calomel, must be kept up until the

child is born. I carried on one of my cases in this way after the patient had had eight convulsions for seven weeks, when a healthy child was born, and thrived. In two cases it happened that when the morning course of salines was omitted, owing to the bowels having moved early in the morning, that convulsions came on again at night. In one of them, after the patient had been kept free from convulsions for a week. Calomel, grms. v, with a drachm of compound jalap powder, as recommended by Jellet, I have also found very useful. In case of unconsciousness, 2 mms. of croton oil may be introduced through a stomach tube.

For anenia the tincture of the acetate of iron with liquor ammonia acetates, or the unmodified Blaud's pill have answered very well.

For the control of the convulsions, morphia hypodermically is the most effective and safest remedy; one-half a grain followed by one-quarter at intervals of an hour, if the patient continues restless. In one case I found it necessary to supplement this by a hypodermic of veratrum viride, twenty minims of the fluid, extract. This acted very well, rapidly reducing the tension and frequency of the pulse, and producing free perspiration; uninterrupted recovery ensuing. I should not use this drug, certainly not in such an heroic dose, if there were any signs of heart failure or edema of the lungs.

Control Labor Pains.—The induction of premature labor is contra-indicated, but if labor sets in, hasten it to the close under full anesthesia.

Control of the Nervous System.—In my cases bromide and chloral have not proven satisfactory, threatened convulsions not being kept off by large doses.

Much more satisfactory have been the isolation of the patient and the cutting off of all peripheral stimuli. In one patient who had had a few post-partum convulsions and was apparently quite convalescent a convulsion was started by putting the baby to the breast.

I think that chloroform, chloral, and pilocarpine, are contra-indicated in all cases, owing to their tendency to produce heart failure and edema of lungs. To prevent asphyxiation pneumonia the patient should be turned on her side during the unconscious stage, and during the convulsion should be prevented from biting her tongue.

To reduce pulse tension glonoin in doses of one minim of the one per cent. solution has given me good results.

This forms the system of treatment. With regard to normal saline solution given subcutaneously, I would say that I found it act very well as a diuretic. In the prolonged unconsciousness which follows the convulsions and their treatment, I think

we should especially remember that our patient can subsist without food, but not without water, which can be conveniently given either beneath the breasts or per rectum.

Bleeding, although often beneficial at the time, tends to prolong convalescence and is certainly not good treatment for the anemia. It may be indicated in cases of over-loading the right side of the heart.

In conclusion I must acknowledge my indebtedness for the pathological anatomy notes to various standard authors, notably the text books of Jellett, Dakin, Dührssen, Lusk, Jewett, Playfair, Winckel, and the "American Text-book of Obstetrics."

MEDICAL ASPECTS OF CANCER OF THE BREAST.*

BY DR. WILLIAM OSLER.

Surgery has become largely the practice of medicine, and medicine, in part at least, the preliminary practice of surgery, in so far as making the diagnosis for surgeons and handing them our cases for operation. We consulting physicians see a cancer of the breast in two stages, because the patients come to us as the lesser of two evils; they prefer the opinion of the physician, who may possibly tell them that an operation is not necessary, to that of the surgeon whom they fear will surely tell them that an operation is necessary. I see every year three or four cases of cancer of the breast in its early stage, or cases of suspected breast tumor, but the cases to which I wish to call attention this evening form a more important group for the physician to recognize, namely, the late manifestations of cancer of the breast.

Now they may be grouped according to the metastases, for it is through these that we are brought into relation with them, into cerebro-spinal, thoracic and abdominal groups. We will first consider the cerebro-spinal. Owing to the fact that the metastases are almost as frequent in the bones as in any other part of the body, we see a proportionately large number of cases with symptoms pointing either to disease in the cranium, the spinal canal or the vertebrae. That point has not been sufficiently brought out, certainly not by medical writers. Statistics are available now from several of the large German clinics and the percentage is considerable.

The first case that called my attention to the matter was a remarkable one that illustrates the cerebral form of metastasis following breast cancer. Many years ago I was asked to see

*Read at meeting of the Clinical Society of Maryland.

a case with Dr. Agnew, in Philadelphia. The woman suffered with headache, vomiting and progressive coma. She had a double optic neuritis, and it was quite evident that she had a brain tumor. It was not until I saw her the second time that Dr. Agnew remarked: "Why, I forgot altogether that Mrs. R. had cancer of the breast eighteen years ago." On examination there was a hard, firm, scirrhus nodule in the breast. That case is paralleled by many in the literature, and illustrates, too, the fact that often years after a malignant disease has apparently atrophied, a secondary growth may occur. It is the only case, however, out of quite a long series I have had showing pronounced cerebral symptoms.

The spinal group is very much more important, and really forms a very considerable number of all the cases of late metastases in carcinoma of the breast. They are important in the first place because they are very apt indeed to be mistaken for something else. The metastases may occur in the body of the spine or within the spinal membranes, and a very small new growth, as in a case recently seen in the Hopkins, may cause very serious symptoms. I saw a very remarkable case a few years ago with Dr. Pole which interested me extremely, as we had made an error in the diagnosis. The patient had a marked neuralgia of the neck and arm and held her head in a peculiar position, always a little obliquely. On the first visit I did not recognize the condition, but thought it an ordinary cerebro-brachial neuralgia. On the second visit I examined both breasts and found a well marked scirrhus tumor in the left one.

But the cases that are of most interest for the physician are those described by Charcot under the name of *paraplegia dolorosa*, an excellent name. The onset of these spinal symptoms may be early, within a few months after detection of the cancer, or may be delayed for months or years, or, on the other hand, they may occur long before the tumor is recognized. The patient and the physician may not know of the existence of the tumor; an instance of that kind occurred at the Johns Hopkins Hospital in 1894, when a man was brought into Ward C from Union Station, having become completely paraplegic on his way up from Florida. He had had curious symptoms of numbness in the hands and feet, accompanied by burning pains, and his physician, who lived in Massachusetts, had been sent for to bring him home. By the time he reached Baltimore he had become so ill that it was decided to bring him to the hospital. He was stripped for examination, and as he stood up it was quite evident that one breast was very much larger than the other. The patient himself had never noticed this, but palpation showed a firm,

hard, indurated tumor. With the existence of the primary tumor of the breast the painful progressive paraplegia was easily and readily explained. The difficulty in these cases arises from the fact that weeks and months often intervene between the onset of the pain and the development of the paraplegia, and that pain and pain alone is the feature presented by the case for many months. Dr. Thayer may tell us of a case of that kind which he saw last year. Two years, I think, following operation on the breast the patient began to have these pains. She was a nervous, hysterical individual, and these pains were regarded for a time, at any rate, as probably functional and due to her neurotic condition. I saw her first with Dr. Atkinson, and it was not possible then to say what was the trouble. There were no signs of local recurrences although the condition was suggestive. Three weeks ago, when I saw her again with Dr. Atkinson, she had the well characterized features of paraplegia dolorosa. These cases are exceedingly trying because one is in doubt whether he has to deal simply with the pains of a neurasthenic patient, and dreads to give morphia, yet the pains become progressively worse and he has to give morphia ultimately in large doses while he has the feeling, as I have had in some cases, that the patient should have had the morphia and plenty of it very much earlier.

The early symptoms usually are not associated with a scar. They are usually distinct pains, a feeling of tingling and numbness, neuralgia of great intensity and shooting pains down the front or back of the legs, then a slight paraplegia followed by complete paraplegia, but long before this last you have the characteristic retraction of the legs associated with severe pain. The degree of suffering is probably as great as that seen in any other condition in medical practice. Now remember that all this may occur without the slightest sign of a secondary tumor.

A patient died in the Hopkins a few months ago who had these agonizing pains, with paraplegia but no definite tumor, no kiphosis and as a rule you find no evidence of tumor masses in the spinal column, but must accept as the signs of tumor rather the signs of pressure upon the nerve roots as they emerge from the spinal cord. In the case referred to it was found at autopsy that the tumor growing from the membranes and pressing upon the cord was not larger than a walnut. The spinal list is the longest of the cases I have seen, and in scarcely one of my long series was the condition recognized in the early stage. What I wish to emphasize particularly about these cases is that they are, so far as we know, utterly hopeless cases, and just so soon as you can reach a diagnosis give the patient all the comfort and aid that medicine can offer, and

you need not blame yourselves for making them morphine habitues. It gives them relief for a time but you can not cure them.

The thoracic group is next in importance, and naturally owing to the close relation and the liability to involvement of the lymphatics, that group of cases is fairly numerous. Metastasis may occur in the pleura, in the mediastinum or in the lungs. Cases in the pleura are common. There is usually an invasion of the pleural membrane and effusion, and the patient comes with symptoms of pleural exudate requiring tapping, and you may be surprised to find a bloody fluid and the necessity for frequent tapping. These patients may die with little or no distress other than that associated with dyspnea. The pulmonary cases are exceedingly rare. I have seen autopsies showing such things, but do not remember at the moment a clinical case of the kind. Involvement of the mediastinal glands is, next to that of the spine, the condition with perhaps the greatest degree of distress, and when in a year or a few months following the removal of a breast cancer the patient begins to have a cough or dyspnea without signs of effusion in either pleura, then you know, even if the glands above the clavicle are not enlarged, that one of the worst accidents has happened. Those cases, as a rule, are very distressing and die of suffocation. There is increasing pain, dyspnea and pulmonary edema, and fortunately the duration of the illness is shorter than in the spinal cases.

The abdominal group comes next, and first in that we have the hepatic cases. Metastases of the liver are perhaps the most common, if you take into consideration a large series of cases. Large nodular masses can usually be felt or seen, and death is rapid, without much pain.

I want, in conclusion, to draw attention to a very remarkable circumstance in connection with the secondary tumors following breast cancer. You know it occasionally happens, as in the case of Dr. Agnew, which I mentioned, that the tumor of the breast ceases to grow, the fibrous tissue predominates, and the growth becomes a firm, hard, cancerous mass, shrinking to perhaps a third of its original size. It is one of the special characteristics of a scirrhus that it not only tends to increase but that it tends to heal to a certain measure, just as tuberculosis does. If you look at the central portion of a nodule of the liver, it is firm, hard, and has undergone changes that are really conservative and on the road to a healing. In a few of those instances of a secondary growth, one sees remarkable changes that are almost curative; at any rate, they proceed to such a degree that the tumors themselves disappear, and what is more important, the symptoms they cause disappear, and the

patient, who was in an apparently hopeless condition, recovers, gets up, and our grave prognosis was apparently a false one. A number of such cases are on record, and if you should look through both volumes of the index catalogue of the Surgeon-General's Library, you will find some interesting reading on this subject. A few cases are given there in which the secondary tumors have disappeared entirely.

Two cases of interest in this line have come under my observation. Four years ago last September a young woman came from Pennsylvania to consult me about a lump in her breast. I sent her to Dr. Halsted, who in November removed a very large tumor which had already involved the axilla in the right arm so that part of the vein had to be removed. It was an extensive growth, and there was no doubt about its cancerous nature. She did very well, and was soon able to be about, although Dr. Halsted had given a very unfavorable prognosis. Two years ago she came to me again, complaining of pain in the side and a loss of vision in one eye. I was sick at the time, unable to examine her carefully, and as her father was then under the care of Dr. De Schweinitz for a diabetic cataract, I asked her to see him. The doctor sent word back by special delivery letter that the patient had a sarcoma of the choroid. He did not know about the breast tumor that had been removed, but said that "it is a secondary growth, of course, in the choroid, the first I have ever seen, and the twenty-second on record." All the winter she seemed to get worse, and in June, before I went away for my vacation, I went up to see her and bid her good-bye. She was then in very bad condition, with secondary tumors in the other breast, nodules in the liver, loss of power in the legs, and was suffering a very great deal of pain. She was given considerable morphia, and during the fall began to improve so that to my astonishment, when I returned, I found her not only alive but rapidly improving, and she has continued to improve. A year later the tumor nodule in the breast had disappeared, she had regained the power of walking, and what seems more remarkable she was regaining vision in the affected eye. I see Dr. Randolph shaking his head, and I know it is wonderful, but it is not the only remarkable thing in this case. She still has some pain on walking, and has a slight kyphosis about the fourth dorsal, and though she still has to take a great deal of morphia she gets about, and recently drove two miles to the station to meet me.

Now a still more remarkable case you may see walking about Baltimore to-day. It must be about four years ago that a young woman came to me with a tumor of the breast, and I sent her to Dr. Tiffany, who removed the cancer. About this time last year she began to have girdle pains, pains down the

legs, and became completely paraplegic. Dr. Lockwood and Dr. Tiffany, for the time, expected her death any day or hour, but she gradually improved, went to the country, and about four months ago she walked from Union Station to my office. She has some secondary nodules, a stiff back, and has to take a certain amount of morphia, but she is able to be about, and attends card parties and other entertainments for her enjoyment.

Now, these are cases for which you could not do better with treatment by Christian Science, or at St. Ann's, or Lourdes.

DISCUSSION.

Dr. Thayer: The case of paraplegia dolorosa to which Dr. Osler referred was a very interesting one. I first saw her about a year after the operation. She had been much relieved for six months, and then began to have a variety of very distressing nervous symptoms. At first the chief complaint was pain that she could not localize. She would say that she was suffering intensely, but she could not put her hand on the painful area. Her pains were relieved by different simple remedies, such as the coal tar products or codea, and then, all of a sudden, her pains would disappear and she would complain of vague symptoms of unrest, and would walk the floor for hours without any apparent reason. She went through the whole line of hysterical symptoms, and though we suspected that it might be due to a recurrence of the carcinoma we could not be sure of it, and her symptoms made us refuse to give morphia and to put her on the rest cure. She went to Philadelphia for a month or so, without any benefit, and while there her pains became worse, and they began to use small doses of morphia. Later in the Fall, though her pains were much more marked, there was no evidence of a recurrence of the growth, and it has only become evident within the last month or so. The case simply shows how very unpleasant such cases may be for the patient and how difficult it is to decide whether or not to give morphia, or to separate them from their family and friends for rest treatment.

Dr. Jacobs: With reference to cerebral metastasis, I had the pleasure last Summer of seeing a very beautiful specimen exhibited and explained by Dr. Collier, of London. It was a cancer of the brain secondary to cancer of the breast.

With regard to the cases Dr. Osler referred to last, those that apparently recover to a certain extent, a case that has been under my notice for the last two or three years may be of interest. The patient, a friend of mine, was operated upon about two years ago by Dr. Richardson, of Boston, for cancer of the breast. It was an extensive operation, and before the wound healed the patient was complaining of the most intense

pain in one leg. It did not seem located in the joint exactly, but was more particularly along the course of the sciatic nerve. The leg then began to draw up a little, and any movement of it was excruciatingly painful. Dr. Walton was then asked to see the case on account of the nervous symptoms. The leg of the same side as the original cancer was the one involved, and it had wasted away to a small size, with some swelling only at the head of the femur, indicating that the metastasis might be at that point. A year ago it seemed as if she might die at any moment, and when I went away last Summer I bade her good-bye, never expecting to see her again. When I came home in the Fall she was much better, and from that time on has steadily gained a little, until within the last month or two she has been able to be out of bed and to take an interest again in some of her household duties.

Dr. Bloodgood: There is very little to add to Dr. Osler's observations, which make me feel that the surgeon should be a physician and look after the ultimate results of his breast carcinoma cases. At Dr. Halsted's clinic we have had now over 300 cases, but we have been seldom able to observe our cases in regard to metastasis. We have had very few autopsies, as those dying outside of the hospital or out of the city are beyond reach for that purpose. I remember the first one I was ever able to get, for I had to travel thirty miles from here, and then drive ten miles in the country. The few I have had since have been upon patients who, for some reason or other, considered themselves under great obligations to the surgeons and promised an autopsy in the event of death.

I have just been over our records of these cases and they fall into the groups suggested by Dr. Osler, except that metastases of the bones are more rare than I had thought from my reading of the literature—I mean metastases of the bones that manifest themselves clinically, for you may have metastases of the long bones without any clinical manifestations. In this group of 350 cases there are only six of fracture of the neck of the femur, and the probability is that all of these were due to metastases; one case, which I saw myself, I am positive of. The tumor had been removed five years before, and suddenly, after a very slight trauma, a fracture of the neck occurred. Extension was used, but a definite tumor occurred at that point and, later, she died with nodules in other parts of the body.

Recently we have had our first autopsy on the brain in this group of 350 cases. In three cases, after the patients had seemed perfectly well for two or three years, death suddenly occurred after hemiplegia.

Cases of metastases of the abdomen associated with obstruction are very rare; I have only observed one case. They are

most common in the liver and the postperitoneal glands. In only one instance have they broken through and caused obstruction.

The late manifestations of tumors, both carcinoma and sarcoma, are very distressing. There are plenty of instances showing a perfectly healthy condition for five years, and then death occurring from metastasis. We used to think the three-year limit was a fair one to pronounce a cure of either carcinoma or sarcoma, but that has had to be given up. As a rule those that have lived for three years without evidences of local metastasis get well, but every now and then we have seen a case recurring after four, five, or even six years.

Dr. Osler: Dr. Bloodgood's remarks are very interesting, especially with regard to the time limit. That it may exceed three years is a matter to be borne in mind, particularly in view of just such cases as the one I referred to as having been seen with Dr. Atkinson. That woman had been perfectly well, strong, capable and active for so long after the operation that he had himself overlooked the fact that she had this old atrophied scirrhus.

I want to call your attention to a very interesting little book in our library, by Mr. Munn, of Middlesex Hospital, as it contains many interesting points and much valuable clinical information on this subject, and also to another by Dr. Shield, also on carcinoma of the breast.

NEW OBSERVATIONS ON THE TREATMENT OF ANEMIA AND CHLOROSIS.

BY F. SONTAG, M.D., OF VIENNA.

For many years attempts have been made to discover a means of promoting the nutrition of the organism in cases of gastric and intestinal diseases and their consequences, in anemia and chlorosis as well as tuberculosis. The chief attention was naturally directed to the albuminous substances, since from the experimental physiology of digestion it appears that these possess the most nutritive value. It was not until the last few years that it was found possible to isolate by chemical means substances necessary for the nutrition of the body from the albumin of muscles. The first attempt in this direction were meat extracts, which, however, in place of albuminoids, contained extractive matter, that is the various organic salts, as well as some peptones. Hence the object sought for was not obtained, the more so since experiments in feeding with extracts led to very unfavorable results. Thus, for instance, of two pigs which were deprived of food in order to determine the amount of disintegration of organic albumin, the one received nothing, while the other was fed on meat extracts, with the result that in the latter the tissue albumin was not spared, as had been expected: but, on the contrary, more rapidly oxidized than in the former animal. This showed that meat extract has no value as a direct nutriment, and that its action is to be sought only in the stimulation of the gastro-intestinal mucous membrane. As a result of further experiments it was thought useful to administer to patients easily digestible proteid combinations obtained by submitting albumins to various stages of artificial digestion, with the expectation that they would thus be rendered fit for immediate absorption. The outcome of these experiments were the peptones, which, aside from their unpalatability, have but slight nutritive value, as they are incapable of being converted into organic albumin in the body.

Recently it has been found possible to prepare an albuminous body in an almost pure form which fulfils all the indications of a true nutritive agent. This preparation, known as somatose, has gained a prominent place among the reconstructives at the disposal of the physician. It contains that form of albumin known as albumoses, that is the deuterio and hetero albumoses, to the amount of 90 per cent. These proteid bodies occupy an intermediate stage between albumins and peptones, are readily assimilable and capable of absorption in the body in their own form, and easily convertible into organic albumin. Somatoes

may be directly utilized in the metabolism and replace other foods. In some cases in which Somatose was the sole nourishment for periods of one or two weeks, I have never been able to note any material loss of weight; on the other hand, its continued use was followed by marked stimulation of the appetite, which of itself was an advantage. Owing to its almost complete freedom from taste, Somatose can be added to all sorts of fluid foods—milk, soups, cocoa, beer, etc., and very large quantities are not required to obtain an effect, which is of inestimable benefit in those cases in which, owing to nervous dyspepsia, there is an aversion of the stomach against all sorts of foods. By the administration of Somatose the organism is supplied with small quantities of a substance which does not tax the digestion, but is easily assimilated. The chief cause of the increase of appetite, however, is the abundance of sodium salts in this preparation which are taken up into the blood, the increased power of the heart, stimulation of the secretions, and the formation of cellular tissue.

In the following I have reported a few cases occurring partly in private and partly in dispensary practice, directing special attention to several instances in which, under the use of Somatose, in daily doses of two to five teaspoonfuls, remarkable success was obtained:

CASE 1.—Dyspepsia Nervosa. Miss L. N., forty years old, had suffered for a number of years with gastric disturbances. At the commencement of her trouble she complained of pains in the gastric region following the ingestion of large amounts of food. After six months, however, these pains became so severe that she was not able to bear the pressure of her clothing. Later vomiting appeared, occurring in attacks at regular intervals. Her general condition was wretched. The pains assumed a spasmodic character, lasting frequently for a number of hours, being followed by a spastic hemicrania. Owing to these disturbances she developed a fear of eating to such an extent that she was compelled to remain in bed in consequence of the resulting weakness. She also suffered with constant dizziness, attacks of syncope, and of a feeling of coldness in the hands and feet. Her condition at the time of my first examination, February 15th, 1899, was as follows: The woman was of medium size, slender framework, signs of previous rickets, muscles relaxed, skin, mucous membranes of the mouth, and conjunctiva pale; panniculus adiposus absent, mental depression due to spasmodic attacks in the gastric region; lungs normal, anemic cardiac murmur, abdomen sensitive to the slightest pressure, no palpable tumor, intestines not distended, anorexia, nausea, hysteria, and localized areas of anesthesia; loss of weight thirty pounds, the pulse small and of low tension.

frequency 96. Hemoglobin index, 0.65; blood pressure in the radial 95 mm. Hg. Urinary examination, specific gravity 1020; quantity, almost three pints; color, dark; reaction, neutral; large amounts of nucleoalbumin; traces of albumin, abundant phosphates, no sugar. Previous treatment had consisted of nervines and tonics, rest in bed, and the use of the warm pack to the abdomen during the periods of stomach cramps. The treatment adopted by me consisted in the administration of Somatose and a diet of soup with the addition of milk, about one pint daily, and brandy in small amounts. February 25th, the attacks of syncope had been less frequent, pressure in the gastric region not so painful, some appetite, slight nausea, anemic murmur persistent. Since four days no gastric spasms; increase of weight two pounds, pulse frequency 92, hemoglobin index 0.7; blood pressure in the radial artery 105 mm. Hg.; specific gravity of the urine 1029; traces of albumin have slightly disappeared. I ordered cocoa in the morning, bouillon at noon, milk in the afternoon, as well as in the evening, to all of which a teaspoonful of Somatose had been added. March 10th, the patient stated that on February 28th she had been again attacked with stomach cramps, but had a good appetite; no nausea, anemic heart murmur only faintly perceptible, and the sensation of cold in the feet and syncope almost entirely absent. The patient feels well, and desires to get up. Increase of weight since last examination five pounds; pulse frequency reduced to 84; tension higher, hemoglobin index 0.85, blood pressure in the radial 110 mm, Hg.; specific gravity of urine 1018; no albumin or sugar, additional diet permitted; a roll in the morning, and a small slice of veal at midday, and ham in the evening, with one quart of milk in the twenty-four hours. March 30th, stomach cramps had disappeared; no nausea; patient had been out of bed since ten days, no vertigo or feeling of coldness, anemic murmur has disappeared, increase of weight five pounds; pulse vigorous, frequency 78; curve normal, hemoglobin index 0.95; pressure in radial artery 215 mm. Hg.; urine normal. Diet in the morning, cocoa with a roll; at forenoon, some ham; at midday, veal, chicken or beef, with a pint of beer; in the evening, ham, bread and butter, and a pint of beer.

CASE 2.—A girl seventeen years old had suffered for one month with marked chlorosis, which had constantly increased, and was accompanied by vertigo, headache, feeling of lassitude, and severe cardialgia. The bowels were constipated, menstruation absent. At night she complained of a feeling of coldness. Examination on March 2nd, 1899, revealed the following: A girl of delicate build, slight development of muscles; scanty adipose tissue; skin and mucous membranes very pale, no

traces of pulmonary tuberculosis, slight dilatation of the heart, anemic murmurs at the apices, and a bruit over the vessels of the neck; no gastric or intestinal affection, lymphatic glands and spleen not enlarged; evening temperature increased, weight about 105 pounds; pulse of low tension, with a frequency of 108; number of red blood corpuscles 4,500,000; percentage of hemoglobin 60; blood pressure in the radial 90 mm. Hg.; urine pale, specific gravity 1015; contains much nucleoalbumin, but no albumin or sugar. Iron and arsenic alternally were first prescribed, but were not tolerated in any form. Ferro-Somatose was then given in amounts of three teaspoonfuls daily in milk. The diet consisted of tea with graham bread in the morning; soups, vegetables and light farinaceous foods at midday, as meat was not tolerated, and in the evening some ham and bread. March 20th, lassitude and weariness have disappeared; pains over the stomach and heart no longer present; evening temperature normal; anemic murmurs and bruit still perceptible; appetite increased, stools regular without laxative; increase of weight, four pounds; pulse of high tension, frequency 90; number of red blood cells, 4,500,000; percentage of hemoglobin 75; blood pressure in radial 105 mm. Hg.; urine yellow; specific gravity 1017; no nucleoalbumin, albumin nor sugar. I prescribed Ferro-Somatose, one teaspoonful in milk in the morning, two teaspoonfuls in soup at noon, and one teaspoonful in tea at night. The diet consisted in the morning of one pint of milk with two rolls; at noon of soups, roast meats (veal, beef or chicken), fruit, four ounces of red wine; at night, milk, tea, bread and ham. April 1st, patient feels much better, appears almost well; menstruation reappeared eight days ago; no vertigo, headache or anemic murmurs; no increase of evening temperature. The patient has been able to follow her vocation since four days without a sign of weariness; stools regular; increase in weight about four pounds; pulse of high tension, strong, and 78 in frequency; number of red blood corpuscles, 4,500,000; percentage of hemoglobin 95; hemoglobin index almost normal; blood pressure in the radial 122 mm. Hg.; urine yellow; specific gravity 1019; no nucleoalbumin, albumin or sugar. Ferro-Somatose was continued, being given only at midday in amounts of two teaspoonfuls in soup; ordinary diet. It may be remarked that in this case the red blood corpuscles did not increase in number; on the other hand, their color was pale at the beginning of treatment, so that they appeared almost yellow.

CASE 3.—A boy, about twelve years old, who had had three attacks of violent scrofulous conjunctivitis, came under treatment in June, 1898, with conjunctivitis eczematosa which had spread to the cornea and gave rise to keratitis. The glands at

the back of the neck were swollen to the size of a hazelnut, soft but not fluctuating. There were also signs of scrofula about the nose and lips. According to the statement of the parents, inflammation of the lids had previously always lasted from three to four months in spite of treatment with cod liver oil. Under the treatment adopted by us, consisting of local applications to the eye and general treatment of the scrofulous condition, complete recovery occurred within six weeks. The general treatment consisted in the systematic administration of Ferro-Somatose, two and one-half teaspoonfuls daily, under the use of which the boy gained in weight and presented a better appearance, while the glands of the neck diminished in size, and the inflammatory focus in the cornea subsided with scarcely any cicatricial tissue. No recurrences have taken place.

A number of more cases could be cited, but the three described above are sufficient, since they are typical of a group. In all instances the favorable influence of Somatose upon the general health was clearly perceptible. In connection with the increase of weight, the percentage of hemoglobin increased considerable, and at the same time there was a stimulation of the appetite. Somatose therefore represents a very valuable nutrient, which is serviceable even in apparently hopeless cases. While Ferro-Somatose is a readily absorbable ferruginous preparation, it is especially adapted for the continued administration of iron. It should be remembered that large doses are not necessary to obtain good results, for small and medium size doses (two to four teaspoonfuls daily) on the average, if given systematically for a long time, produce the best effects. Care must also be taken that the Somatose preparations are administered in a completely dissolved state.

Selected Article.

GUN SHOT WOUNDS OF THE CHEST WITH REPORT OF A CASE.*

J. HERBERT AUSTIN, M.D. (TOR.), M.R.C.S. : ENG., EL PASO, TEXAS.

On the evening of December 26th, 1899, just as the sun went down, there left Oryden station, on the Southern Pacific railroad, two men on an errand of mercy bound.

The night was dark and cold with a chilling wind blowing from the north-west. Well, they knew that their destination lay seventy-five long weary miles away. But the hope that a life, now trembling in the balance, might, as the result of their efforts, be saved, seemed to spur on alike, both horses and riders to do their very best.

For nine hours, from 6 p.m. to 3 a.m., they pressed steadily onward, having in this time travelled fifty miles or more. Rested at a ranch Home Camp until about 6 a.m., then climbed into the saddle and started on the still remaining twenty-five-mile journey, across a very broken rough country.

Reached patient's side about noon, on December 27th, after having ridden seventy-five miles in fifteen hours, using the same horses clear through. Patient had been deliberately shot at a dance, about midnight of December 25th. Weapon used was a thirty-thirty calibre Winchester rifle, held within a few inches of his body. Patient had lost blood by mouth profusely immediately after shooting. He had lain thirty-six hours before I saw him, absolutely without assistance. There was more or less constant hemorrhage from the wounds during this time. He had been shot at anterior part of right shoulder. When shot he was in a stooping position, leaning forward and to right side. Found one quite small opening where rifle ball had entered. Found fracture at outer end of right clavicle. There was a fracture at the anatomical neck of the humerus, and the head of the humerus was very much shattered indeed. Whether these several injuries of the bones at the right shoulder joint were caused solely by the explosive force of the rifle ball, or partly by that and partly by his fall immediately after being shot, I am unable to say. The wound track ranged downward, inward and backward. Found a large, gashing, ugly-looking, irregular wound in the back on the right side. This was evidently the point of exit of part of the rifle ball,

* Read before The El Paso County Medical Society on January 12th, 1901.

etc. This wound was a little above the level of the lower angle of the right scapula and about midway between the inner border of the scapula and the medium line of the vertebral column. There was a peculiar hissing sound of air at every breath from both wounds. Evidently the wound track traversed the right lung for several inches. Examined the wound very cautiously by finger and also by means of probes. Was fearful lest I should start a severe hemorrhage. Extracted pieces of the bone, fragments of the rifle ball, etc., from the wound track. Irrigated thoroughly from the upper opening with a very hot boracic acid solution; this solution came freely through to the lower wound, bringing blood clots, specks of lead, splinters of bone, etc., freely. Packed firmly with iodoform gauze from upper to lower wound. Hurried on the external dressings, fixing fractures as best we could, and got patient to bed, almost bloodless, and in a nearly moribund condition. Wrapped him in hot blankets, used hot drinks freely. Gave hypodermics freely. Did not use alcoholic stimulants. Patient slowly reacted to the measures adopted and rallied from his desperately shocked condition.

Although patient, when wounded, was a young man about thirty years of age, in splendid physical condition, still I could hardly see how he could recover. I fully expected death in a few days from septic pneumonia, and, for some ten days or so he did have a very rapid pulse, high temperatures and rapid respirations, with abundant purulent discharges from the wound in the back.

From that time on he gradually improved. For the first two or three weeks the wound was dressed twice daily. Irrigated thoroughly each time and packed firmly. Patient made a good recovery, the wounds slowly contracting and closing some weeks later and fractures healing nicely. Has little movement at the right shoulder articulation. Is in ordinary health at present.

The result in this case certainly was excellent, and really about all that could be hoped for, and very different from what I expected.

The question constantly before my mind while treating this case was, "Am I doing absolutely what is best in this case?" Is there anything that can be done, or anything being done, which, if stopped, would give this man a better chance for his life?

Hope opinions will be freely expressed along these lines and shall highly appreciate any views put forward. We shall now consider for a short time some points of interest concerning gun shot wounds of the chest. First, let us look at the causes of these wounds; they are legion, from the so-called toy

twenty-two calibre revolver up to the modern artillery of to-day. Of smaller missiles, the solid steel rifle ball has the greatest penetrating force. Have seen one fired into a railroad rail from the side. At the same time, unless penetrating a vital part or organ, it does the least damage to the human organism. Wound track usually closes instantly behind it. Not considering heavier projectiles, the soft-nosed, steel-jacketed rifle ball is the most dangerous missile fired; it always produces a fearful injury, especially a very ragged wound at point of exit.

This was a soft-nosed, steel-jacketed rifle ball, thirty-thirty calibre Winchester. The injuries caused by the different projectiles vary all the way from the types of wounds just mentioned, up to the crushing, lacerating wounds caused by shot and shell from artillery.

There are several points about the symptoms, diagnosis and prognosis of gun shot wounds of the chest that are extremely interesting. Death speedily follows a shot through the heart. Cases are on record where men have made a short run before falling even after being shot through the heart. Wounds of the larger vessels of the thorax are very speedily fatal.

Sometimes there is very little external hemorrhage in such cases. Wounds to the left of the median line of the thorax are far more dangerous to life, as a general rule, because of the presence of the heart and great vessels.

There has recently been in Jaurez a remarkable case. A government official shot himself twice, from before backwards, on the left side, yet did not die. Both balls went through his body and out of his back on the left side. In general wounds from side to side of the body are more dangerous than those from before backwards. We must bear in mind the arch of the diaphragm and consider the possibility of injury of the liver, in the case of a wound from before backward, low down on the right side. On the left side, a wound in a similiar situation may injure the stomach.

These anatomical facts are of the greatest importance when we are considering the diagnosis, prognosis and treatment of a gun-shot wound of the chest. General peritonitis, following injury of the liver or stomach, is what, on more than one occasion, I have seen the post-mortem reveal.

Given a simple through and through wound of the chest, from before backwards, then we must consider the danger of death from shock, or later from septic pneumonia. Now let us consider shortly the treatment of gun-shot wounds of the chest. If perforation of the stomach is suspected, an abdominal section should at once be done, and, any opening found carefully closed; the parts being thoroughly cleaned by irriga-

tion or wiping, as may be deemed best in a given case. If, in a given case, I believed the liver injured I should make an exploratory incision, and try, by thorough cleansing and drainage with gauze, to prevent death from peritonitis. In a given case it may be necessary to tie the internal mammary artery. May have to remove a costal cartilage to expose it sufficiently. An intercostal artery may have to be tied; may have to remove a portion of a rib to reach bleeding spot clearly. In regard to whether an attempt should be made to remove a bullet or other foreign body from a chest wound, I consider every case a law unto itself. Can do so easily in many cases, can not in others, and persistent efforts to do so may cause death when patient otherwise would have recovered.

After a gun shot wound of the chest a patient must be kept absolutely quiet and on a light diet at first. Am a firm believer in persistent irrigation with a hot solution. Consider that firm packing of the wound track with gauze tends to prevent hemorrhage, also to assist the tissues to heal solidly and soundly from within outward. Many of these cases will die when we least expect such a result. Fortunately, on the other hand, patients frequently surprise us by rallying from seemingly hopeless, desperate conditions, and regaining their usual health and strength.—*Kansas Medical Index-Lancet.*

Progress of Medical Science.

MEDICINE.

IN CHARGE OF W. H. B. AIKINS, J. FERGUSON, T. M. McMAHON, H. J. HAMILTON,
AND INGERSOLL OLMSTED.

Treatment of Pneumonia.

Shurley (*Phys. and Surg.*), in discussing treatment of pneumonia, gives preference to ice or ice water in controlling excessive pyrexia, and as an application to the affected lung. Only a very astute diagnostician, however, would require his injunction against applying ice to the thorax before the initial chill. Opium and chloral may be used to control nervous symptoms in the early stages, where no signs of cardiac weakness are present. Whether, in view of the spreading character of many pneumonias, the ice bag is useless after the first few days, is open to question. Alcohol, digitalis, strychnia, his principal stimulants, are not given till need arises, and preferably not till the stage of gray hepatization. Heart failure is met with hypodermic administration of these drugs, nitroglycerin and nitrite of sodium being added. Saline injections and bleeding are not considered; nor is the advisability of trying antipneumococcic serum in suitable cases. Antistreptococcic serum, digitalis, and diuretics are given by the writer in the "so-called infectious pneumonia accompanying influenza." In broncho-pneumonia, tartar emetic, apomorphia, ammonia and opiates are recommended. In one case with meningitis excellent results were obtained from atropia. Nothing new is suggested in the treatment of secondary pneumonia.—*International Medical Magazine*.

Intermittent Lameness.

Goldflam (*Neurol. Centralbl.*) has recently published another paper on the peculiar condition called by Charcot intermittent claudication, and by Erb intermittent lameness. The person afflicted with this disorder is unable after walking a short distance to go farther until he has rested and allowed the muscles of the lower limbs to recover from their temporary paralysis. Even when at rest, paresthesia may be experienced in the feet and legs. The disease is the result of thickening of the walls of the blood vessels, although this does not fully explain it. The pulse may be absent in the arteries of the feet. Goldflam's patients were chiefly between thirty and forty years of age, were of the Jewish race, and all were males. Diabetes

does not seem to bear any close relation to intermittent lumbago, but a neuropathic diathesis has been present in some cases, and in some instances more than one member of a family have been attacked. Men are more affected, possibly because they are more exposed to dampness and changes of weather, and because they smoke; tobacco, according to Erb, being a potent cause of vascular disease. The treatment is hygienic and dietetic. Over-exertion of the lower limbs, anything that produces vasomotor disturbance, alcohol and tobacco, must be avoided. The feet must be kept dry and warm, etc. Little is to be gained by the use of drugs.—*International Medicine Magazine*.

Frontal Headache and Iodide of Potash.

Since there are various forms of headache, and since the remedy that will relieve one patient will utterly fail to relieve another with seemingly the same kind of head-pain, it is necessary that the physician should be armed with a variety of remedies. For some time past we have found minimum doses of iodide of potassium of great service in frontal headache. A heavy, dull headache, situated over the brow, and accompanied by languor, chilliness, and a feeling of general discomfort, with a distaste for food, which sometimes approaches to nausea, can generally be removed by a two-grain dose of the potassic salt dissolved in half a wineglass of water, and this quietly sipped, the whole quantity being taken in about ten minutes. In many cases the effect of these small doses has been simply wonderful. A person who, a quarter of an hour before, was feeling most miserable and refused all food, wishing only for quietness, would now take a good meal and resume his wonted cheerfulness. The rapidity with which the iodide acts in these cases constitutes its great advantage.

We make no claim of originality in the use of the remedy. If we mistake not, it was an Australian physician who first recommended it. The morbid condition here described is so very common we would invite others to give this remedy a trial.—*Massachusetts Med. Journal*.

Gall Bladder Infection in Typhoid Fever.

Marsden (*Med. Chron.*) reports a case of typhoid fever in which there were early, very severe paroxysmal pains across the lower part of the abdomen. Owing to the extreme tenderness and the delirium of the patient, a satisfactory examination was impossible. It was therefore decided to make an exploratory incision. On opening the abdomen below the umbilicus no evidence of peritonitis was found, but a second incision in the right iliac region revealed several ounces of a dirty greenish

mucoid fluid (limited to the right iliac region), along with a solitary ribbon of what was thought to be lymph, about five inches long and three-quarters of an inch broad. The patient died, and at autopsy the gall bladder was found to be perforated. It was adherent to the colon and omentum, and although it was not distended, it contained considerable fluid. Internally, the mucous membrane was green and pitted with a large number of very small round or elliptical ulcerations. There were no gall stones. Besides the lesions in the gall bladder, there were areas in the liver substance, occupying only small portions of the lobules, where the liver cells had lost their outline and the power of taking stain. In these areas there was an unusual collection of leucocytes, thus constituting infiltrated patches of focal necrosis. Intestinal ulcerations were few and small, although they were present. A culture made from the mucous membrane of the gall bladder developed a motile bacillus which clumped with the blood of a typhoid patient, other tests along with the production of acid and gas, and the growth on potato led to the belief that it was one of the bacillus coli group of a pseudo-typhoid type.—*International Medical Magazine*.

Primary Contracted Kidney. BAUMGARTEN (DR. OSWALD). *Münchener Medicinische Wochenschrift*.

The author passes in review 220 cases of "Primary Contracted Kidney" which have come under his notice in the medical clinic in Berlin. The greatest difficulty in the discovery of etiological factors lies in the gradual and insidious mode of origin of the disease, which is seldom recognized until the conditions of life at its earliest stages have passed out of recollection. It affects *men* much more frequently than *women*, and especially those at the *middle period of life*, more than half the cases coming in the two decades between thirty and fifty. *Heredity* plays but a slight direct part, but indirectly, through the transference of a gouty tendency, it is of considerable importance. Since, however, granular kidneys have been found *post-mortem* upon young, and even newly-born children, a condition of affairs that must be looked upon as the expression of a *congenital* tendency to degeneration of kidney substance, it is readily conceivable that similar changes in a lower degree may lead to the typical development of the disease at a later age.

The association with *gout* is fully recognized, and hence, with the various factors which lead to the gouty state, viz., *chronic lead poisoning* and excessive *indulgence in food and drink*. Undoubtedly exposure to these same pernicious modes of life, and more especially to lead poisoning, may lead to direct

development of interstitial nephritis, without any, or but slight, evidence of gout. The author found in *14 per cent.* of his cases a history of such chronic lead poisoning, whilst other authorities place this form of intoxication still higher as a cause of granular kidneys.

Opinions have differed very widely as to the effect of chronic *alcoholism* in the production of the disease. The author strongly believes that in more than a quarter of the cases under his care this was the main etiological factor, whilst in a number of others it formed one of a combination of causes. In the majority of these cases spirits was the form of alcohol consumed. There was a history of *syphilis* in nearly *10 per cent.* of the cases, but a difficulty is here introduced in the combination of amyloid disease with the granular contraction, and further by the frequency with which excessive drinking is associated with the syphilitic history. Among the remaining causes to which the disease was ascribed frequent *catching cold* amounts to *7 per cent.*, whilst the cases for which *no probable mode of origin* could be assigned amounted to as many as *20 per cent.* of the whole.

The association of granular kidneys with *general arterio-sclerosis* is almost constant, but the exact relation of the two conditions is still a matter of some uncertainty. The two may progress *pari passu* as the result of one and the same cause, or the arterio-sclerosis may be looked upon as the result of the kidney affection, or again the kidney affection is possibly in many cases merely a local expression of arterio-sclerotic changes running ahead of the general tendency to such changes.—*Medical Chronicle.*

SURGERY

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

Ulceration of Rectum—Stricture of Rectum.

Samuel G. Grant, M.D., in *N.Y. Med. Jour.*, reports two very interesting and instructive cases of rectal disease.

1. *Chronic Diarrhea Due to Rectal Ulceration.*—The patient, a female, had suffered from frequent stools and tenesmus for five years, during which period every possible nostrum and medicine had been used without improvement. On examination three ulcers were found on the posterior rectal wall, varying in size from a dime to a quarter, the lowest being only three-quarters of an inch above the anus. The sphincter was hypertrophied and contracted tightly, and the mucous membrane throughout highly inflamed. The sphincters were

divulged under general anesthesia, and the denuded surface brushed over with a silver nitrate solution, thirty grains to the ounce. Rest in bed, daily rectal irrigation with antiseptic and stimulating remedies, and a light diet, followed the operation. In six weeks the ulcers were headed and the patient discharged cured. She has been well since.

2. *Stricture of the Rectum Caused by Stone in the Bladder.*—Male, twenty-four years old, had suffered from constipation and diarrhea three years; recently had passed much pus, blood and mucus; much straining was required to expel the feces, though occasionally they passed easily. Recently all the urine had been voided through the rectum, causing smarting pain and inflammation of the skin about the anus. Pain was present in the bladder region. A thick white sediment formed in the urine on standing, composed principally of pus; and on one occasion he had complete retention for twenty-four hours.

There was an almost complete stricture in the rectum. The bowel was ulcerated at this point and acutely inflamed everywhere, as a result of the dribbling urine. The caliber of the bowel was obstructed by a hard, oval, movable mass about the size of a hen's egg. A sound was introduced into the bladder and the diagnosis of stone was thereby confirmed.

Perineal lithotomy was performed after some difficulty; the stone weighed four and a half ounces. The urine passed through the perineal wound for a year after the operation, after which period the wound closed. A bougie was passed through the strictured rectum bi-weekly. The patient was kept under observation for two years, and during the latter ten months of this time was perfectly well.

A. L. W.

Subarachnoid Spinal Cocainization as a Means of Inducing Surgical Anesthesia.

Dr. E. N. Liell, in the *New York Medical Record* of May 11th, 1901, in a very instructive paper on "Subarachnoid Spinal Cocainization as a means of inducing Surgical Anesthesia," reviews the subject very thoroughly. He is of the opinion that this form of anesthesia will become more general in its use as we understand the technique better. There are instances, however, in which the anesthetic result is not obtained, and there appears to be no satisfactory explanation to account for the non-success of the injection. He gives four reasons why we may expect failure to occur.

1. Inert cocain solution, the result of prolonged boiling or repeated sterilization.

2. Idiosyncrasy to the drug, with which may or may not be associated intensely neurotic temperaments.

3 Faulty technique, too short needle, imperfect syringe, non-entrance of needle or fluid into the spinal canal.

4. Too small a quantity of drug employed.

And he also draws attention to the peculiar and disagreeable features accompanying this form of anesthesia.

1. Nausea and vomiting, the latter being rather projectile in character, of short duration usually in the majority of cases.

2. Headache, at times intense, is of frequent occurrence; its severity and duration are variable.

3. Increased temperature in almost every instance, not frequently as high as 103, disappearing within 24 to 36 hours.

4. Increase in pulse rate, appearing shortly after anesthesia is present.

5. Added to these may appear vertigo, pallor, coldness of surface, and prostration. Abstinence from food for several hours previous to the injection tends to minimize attacks of vomiting. To counteract any seeming dangers from this method, the preliminary use of strychnine may be made hypodermically, or of whiskey by the mouth.

The percentage of deaths in these cases is exceedingly low, and under absolutely aseptic precautions in every minute detail will undoubtedly replace general anesthesia in cases that are suitable.

A New Method for Closing Superficial Incised Wounds.

Dr. Arthur G. Bretz (*Medical and Surgical Monitor*) believes the method very simple, and describes it as follows:

Given a wound on the forehead, for instance, after cleansing and preparing it in the usual way, dry the adjacent surface thoroughly and then apply a piece of adhesive plaster on either side of the wound, the size of the plaster and the distance from the edge of the wound to be determined by the length and character of the same. However, it should be of sufficient width to give ample area for adhesion, which should not be less than one-fourth of an inch and not nearer the wound than one-fourth of an inch. Raise the inner edges of the adhesive strips and insert interrupted sutures through them instead of through the skin, draw together and tie. This adapts the edges of the wound even better than stitches through the skin. The wound is then dressed in the usual way.

First, it prevents the painful process of inserting stitches, of which all patients have such a dread.

Secondly, it does away with the possibility of stitch-hole abscess and the trouble caused by particles of sutures being left in the wound on removing the stitches.

Thirdly, it prevents the stitch-marks, which always add to the unsightliness of the scar.

Fourthly, in cases of wounds inflicted by a blunt instrument, which caused bruised tissue immediately surrounding the wound, there are no stitches to tear out the friable tissue.

There is no puckering between the stitches; the first stitches coapt the edges, and the others make the closure permanent. There are many other advantages besides those enumerated above. In the case of semilunar or angular wounds, if the central stitch is wrongly located, it may be easily taken out and replaced. The wound is open for inspection and drainage. In the case of superficial wounds this method is especially advantageous. When the wound is united the adhesive strips should be removed by raising them at their outer edges and pulling toward the wound, or if for any reason it is deemed desirable, the stitches may be removed and the adhesive strips remain for a short period. Furthermore, if it is thought best in order to prevent the slight pressure of the sutures on the surface of the wound, the adhesive strips may be placed a little farther from the edges of the wound, and a folded strip of iodoform or other gauze placed beneath the sutures on either side of the wound. This does not seem to be necessary. In using this method it is necessary to have the best quality of rubber adhesive plaster. If any difficulty should arise, it would not be during the operation if the proper precautions are observed, and the operator possesses ordinary adeptness; and as far as a latter period is concerned, it is evident that the mechanical pressure of the dressing adds to its firmness and permanence. In case the surrounding field is a hairy surface, it is probably unnecessary to state that it should be closely shaven.—*Therapeutic Gazette*.

LARYNGOLOGY AND RHINOLOGY.

IN CHARGE OF J. PRICE-BROWN.

Perforation of the Nasal Septum, from a Study of Twenty-five Cases.

Charles W. Richardson (*Laryngoscope*, January, 1901), in reading his paper before the New York Academy of Medicine, dwelt upon the etiology and pathological significance of septal perforation. The subject created discussion and brought out several points worthy of note. Of Richardson's cases, eight presented a syphilitic history; eleven followed a tubercular diathesis, although the perforation itself was in no case tubercular; six gave no previous evidence of disease. His own opinion was that the underlying predisposing cause was a destruction of the

innervation of the cartilaginous septum, whereby its power of resistance was so diminished as to allow ulceration and perforation to follow. The immediate cause was considered in many cases to be picking and boring with the finger.

M. Toeplitz drew attention to the injurious effect which working among mercury and arsenic had upon the nasal septum. He had examined thirty-two persons working in a paris green manufactory, and in every one of them there was more or less marked septal perforation arising from the arsenical fumes.

J. F. McKernon drew attention to the fact that he had seen four cases of septal perforation follow epidemic influenza, and all of them had subsequently developed tuberculosis. He had also seen three cases the result of working in phosphorus in match factories.

Structure and Physiology of the Faucial Tonsil.

Marcel Labbé and Ch. Levi-Sirugue (*La Presse Méd.*, August, 1900), after entering minutely into the histology of this subject in reference to the rabbit and other animals, give an interesting description of the lymphatics of the human tonsil. The beginnings of the lymphatics are in the lymph spaces of the reticulum between the follicles, and in the periphery of the follicles. These lymph spaces are continued by the capillaries and lymphatic vessels, "bounded by a complete wall," which are found in the peritonsillar connective tissue. The authors insist on the "direct continuity of the reticular spaces with the peritonsillar lymphatics."

Like St. Clair Thomson, the authors claim the production of leucocytes to be the chief function of the tonsils.

In the centres of the follicles lymphocytes are transformed into mononuclear leucocytes. In these active karyokinetic changes are seen, therefore the tonsil is to be regarded as a hematopoietic organ analogous to the lymphatic glands. No polynuclear leucocytes are produced in the tonsil; any that are found there have been carried thither in the blood.

These authors do not believe that germs, dust, etc., are absorbed by the tonsils; if such absorption ever does occur, it must be when the epithelial surfaces are broken, and even then goes on very slowly. Neither does the tonsil protect the organism by the production and pouring out of phagocytic polynuclear leucocytes, nor by absorbing and destroying noxious agents, but by aiding other glands in the production of defensive leucocytosis.

That the views of authors are very varied on this subject, is proved by other extracts given from writings of equally eminent men.

A Path of Infection in Man.

Aron (*Wein. Klin. Rundsch.*, November 27, 1900), says that the lacunæ of the tonsil contain the most varied pathogenic bacteria or parasites which, under certain conditions, are able to produce infection of the organism. The author mentions cases of pneumonia with streptococci, and one case of typhoid fever after angina lacunaris.

Rheumatic Fever in Relation to the Throat.

St. Clair Thomson (*Laryngoscope*, January, 1901), advances two different but not necessarily contradictory points of view. The first is, that in many cases of rheumatic fever, the poison enters the system through the tonsil, the inflammation in that organ being the earliest indication of the systemic affection. The second is, that tonsillar inflammation occurs with great frequency in persons of a rheumatic diathesis.

In support of these points many authors are quoted. For instance, Gerhardt calls the tonsil a "physiological wound," which if not maintained in a healthy condition, permits through it a general infection of the system. Jessen records four cases of serious general infection from the tonsils, acute articular rheumatism, acute pyemia, streptococcal pneumonia and staphylococcal pneumonia. In all of these, minute research was made, but no other cause than angina could be discovered for these infections.

St. Clair Thomson here draws attention to the two chief functions of the tonsils. "1. As part of the hemopoietic system they form young leucocytes, most of which pass into the circulation, while some escape on the free epithelial surface, where they may, perhaps, exercise some protective action. 2. They excrete old leucocytes, which probably carry off with them effete products. These two functions are most active in childhood and youth; when all the lymphatic organs are specially active, and when the thymus, a large blood-forming gland, is disappearing." The performance of these two functions, presupposes, of course, a healthy condition.

Pluder maintains that, while the whole mucous membrane has protective powers, the tonsils are its weakest point, and cannot even protect themselves, as shown by their liability to inflammation.

Wagner believes that rheumatic affections are caused by germs migrating from the tonsillar tissues to other parts of the body, and records ten cases in support of this view. Groedel gives twenty-one cases in which tonsillitis has been followed by rheumatic arthritis.

In his Milroy lectures, Newsholme expresses the view that it

is probable that in rheumatic fever the specific infection enters the system at the tonsils, or some other part of the nasopharynx.

As a criticism of these views, Emile Poingt in a *These de Paris*, says that the articular complications which so frequently occur with tonsillitis, should not be confounded with essential acute rheumatism. Renault, another French observer, states that he has never been able to obtain from the administration of salicylate of soda in tonsillitis, sufficient evidence to convince him that the treatment had any specific action as it had in acute rheumatism. And Cobb, from a study of forty-four cases of peritonsillar abscesses, finds that no causative relation could be found to exist between rheumatism and peritonsillar abscess.

Tonsillitis as a rheumatic manifestation frequently occurs, some authors claiming that one-third of the cases arise in patients who have a personal or family history of rheumatic fever.

In closing the article, several conclusions are arrived at, of which the following may be quoted :

1. It is undoubted that a certain number of cases of acute rheumatism are preceded by an angina in a proportion varying from thirty to eighty per cent.

2. Both rheumatism and angina have many etiological points in common, season of year, cold, wet, fatigue, depression, vitiated air, etc.

3. The connection of angina and rheumatism, though undoubted in a number of cases, is not yet clearly established.

4. The tonsil may be the port of entry of the rheumatic virus, and this even although the naked-eye appearance of the throat gives no indication of its being affected.

Tonsillitis Streptothricia.

P. Hellat (*Laryngoscope*, February, 1901). This name has been given to a disease very often observed by the author. He examined about ninety cases of this disease and found the tonsils covered with several kinds of streptothrix. Inoculations on animals and cultures did not succeed. As clinical symptoms of this disease, may be mentioned periodical pains, paresthesia, catarrh of the pharynx and contiguous organs, sensitiveness to pressure and slight swelling of the tonsils, as well as vocal disturbances.

The treatment consists in incising the tonsils and eliminating the streptothrix. The prognosis is good.

Some Symptoms of the Upper Air-Passages in Severe Scarletina.

Kronenberg (*Wein. Klin. Rundsch*, November 24, 1900) describes cases of purulent rhinitis and suppuration of the

accessory cavities of the nose, and gangrene of the pharynx, consequent upon scarlatina.

Case of Hemorrhage of Vocal Cords.

Charles Parker (*Laryngoscope*, January, 1901) reports a case that occurred in a female teacher, aged 35 years. The hemorrhage was from the middle portion of the upper surface of each cord. The patient complained of hoarseness and aching of the throat after using the voice. There were no signs of hemorrhage occurring elsewhere. The throat of the patient was sensitive and easily strained; and did not yield readily to treatment.

Case of Congenital Web of the Larynx.

Albert McKee, of San Francisco, (*Laryngoscope*, March, 1901) reports the case. The unnatural character of the child's cry was noticed at birth. The statement was made that she was always hoarse; but the larynx was not examined until she was seven years old. The voice had then a peculiar, hoarse, breathy sound; and the larynx showed a pearly web extending from the anterior commissure to the junction of the anterior and middle thirds of the true vocal cords, uniting their margins by a membrane which allowed of a considerable range of motion. The posterior margin of the web was concave, and no sign of inflammatory trouble was present.

Paralysis of the Posticus, Caused by a Foreign Body in the Larynx.

Bruggiser (*Corres. Bl. f. Schweiz Aertze*, Nov. 15, 1900) gives the history of the case. A man aged 24 got an India rubber dental plate with two false teeth attached into the larynx. It was removed eight days later endo-laryngeally. The patient, however, developed a complete paralysis of both crico-arytenoidei postici muscles, probably caused by the pressure, and tracheotomy had to be performed. The author saw the patient again four years afterwards, when the paralyzed condition of the muscles remained the same.

Case of Fracture of the Larynx.

Waggett (*Jour. Lar., Rhin. and Otol.*, January, 1901) showed this case. The patient, a woman aged 52 years, had the thyroid cartilage fractured by severe pinching between the fingers and thumb of a persecutor. Severe dyspnea lasted for some days, external swelling was present, and much pain experienced.

On examination two months after the injury, nothing abnormal could be seen by the mirror. External palpation of the

enlarged larynx caused pain, and indicated the presence of an ununited fracture of the thyroid cartilage, separating the upper half of one ala from its fellow, close to the anterior angle. The fracture was vertical above, curving to the right at its lower end. The semi-detached antero-superior portion of the right ala could be made to ride over the left ala. The voice had altered in character since the receipt of the injury; but the action of the vocal muscles showed no gross sign of impairment. Surgical interference was not intended.

Angeioma of Larynx in a Boy Aged Six Years Removed Under Chloroform by Endolaryngeal Method.

A. J. Brady, of Sydney, New South Wales, (*Jour. of Lar. Rhin. and Otol.*, January, 1901) reports this case on account of the rarity of angeioma of the larynx, and the success attending his method of treatment. The symptoms were dyspnea and bleeding from the mouth. The laryngeal mirror revealed a globular growth about the size of a cherry, below the anterior commissure of the vocal cords. It was of a deep red color and slightly roughened on the surface. It bled readily; the larynx was very irritable, and every time the patient coughed blood was expectorated. Both tonsils were enlarged; there were no adenoids. Attempts to remove it while under the influence of cocaine were unsuccessful, notwithstanding a prolonged training which lasted for more than a month, the cough always returning when laryngeal instruments were inserted. To facilitate operation the tonsils were removed. At last chloroform was administered, and by drawing the tongue forward with a Kirstein's tongue depressor a view of the upper part of the glottis, but not of the growth, could be obtained. Then a Heryng's laryngeal curette was passed into the larynx and drawn upwards over the known site of the growth with moderate pressure three times. Bleeding was slight and some shreds of the growth removed. Subsequent examination showed that all had not been removed; so the operation was repeated ten days later with complete success. The voice became normal, dyspnea subsided, and the growth did not return.

PATHOLOGY AND BACTERIOLOGY.

IN CHARGE OF J. CAVEN, W. GOLDIE, AND G. SILVERTHORN.

An Antiseptic Varnish to Replace Collodion.

The *Journal des Praticiens* attributes the following to Nicaise:

Rx	Thymol.....	22½	grains.
	Balsam of tolu.....	75	grains.
	Powdered shellac.....	900	grains.
	Alcohol at 90°.....	750	grains.
	Ether.....	1500	grains.

M.—*N. J. Med. Jour.*

The Organism of Vaccinia and Variola.

In the *British Medical Journal* of February 23 appear two "Preliminary Notes" upon the specific agent of smallpox and vaccinia. The first is by M. Funck, of Brussels, who promises to give at an early day a detailed report in proof of the following propositions:

1. Vaccinia is not a microbic disease.
2. It is caused by a protozoon easily found in all vaccine pustules, and in all active vaccine.
3. The inoculation of this protozoon in a sterile emulsion reproduces in susceptible animals all the classical symptoms of vaccinia.
4. This inoculation renders the animals refractory to subsequent inoculation with vaccine.
5. The variolous pustule contains a protozoon morphologically similar to that in the vaccine.
6. . . . Vaccinia is an attenuated form of variola. . . .

The questions involved in the first two of these propositions have engaged the attention of many competent investigators, with no very noteworthy results, and one does not find hope of better success in Funck's brief communication.

He arrives at the conclusion that vaccinia is not a microbic disease in this wise: "Having found that twenty samples of vaccine kept in sealed tubes in the dark for three months grew nothing on the ordinary media, but were still capable of producing characteristic vaccine pustules, it follows," he says, "that vaccine freed from microbes (aerobic and anaerobic) produces the specific pustules."

He describes the "sporidium vaccinale" at considerable length as occurring under three forms: 1st, a refracting form of a brilliant green color, spherical, with diameter of two to ten

micromillimeters, and having slow movements; 2nd, ovoid epidermic cells enclosing masses of spherical green bodies ("sporozoa") of smaller size; and 3rd, raspberry-like bodies of considerable size, twenty to thirty-five micromillimeters in diameter, round or oval in shape; encysted spores.

These bodies were described in 1887 by Pfeiffer. Funck's method of studying this "sporidium" is to make a hanging drop of glycerinated vaccine and bouillon and place it in a warm, moist chamber. After half an hour the protozoa are said to become attached to the cover slip, the leucocytes and other elements falling toward the point of the drop, so that the protozoa may be conveniently observed.

The inoculation experiments were made with the spore-cysts, which Funck believes that he isolated in the following manner:

Vaccine was spread on ordinary agar plates and incubated for twenty-four hours. After that time he placed the plates under the microscope and dug out the sporoblasts with a platinum needle hammered into spatula form. This spadeful of spores (and things) is made into an emulsion with a drop of bouillon and inoculated into a calf. "When the experiment is properly conducted" characteristic vaccine pustules follow in about six days.

The second preliminary note is from Monckton Copeman, who reported in 1896 some successful cultivations of the micro-organism of vaccinia in eggs. He now hints at a possible explanation of many failures in repeating these experiments. He believes that it is essential that the eggs used for this purpose should be fertilized, and that development of the embryo should begin during incubation.

Since 1898 he has employed the collodion-capsule method of Nocard and Roux. Bouillon capsules inoculated with glycerinated vaccine are placed in the peritoneal cavity of dogs or rabbits, where they remain for about fourteen days. Control capsules immersed in sterile bouillon in test tubes are incubated at the same time. If the collodion envelope remains unbroken, the contents of the capsule are found, after removal, to be free from leucocytes, though containing a trace of serum albumen. Film preparations stained with methylene-blue show numerous zooglea masses, made up apparently of spores, and these, Copeman believes, represent a resting stage of the specific microbe.

The contents of these capsules produce typical vaccinia in the calf, while the contents of the control capsules do not produce vaccinia in the calf.

When it is remembered that the specific agent of vaccinia can be passed through a filter which would surely retain such bodies as are described by Funck, one can hardly expect the

cause of vaccinia to be found among the protozoa. The experiments of Cöpeman, on the other hand, are encouraging, and his full report will be awaited with much interest.—*Maryland Med. Jour.*

New Researches on Smallpox. ROGER AND WEIL. *Gazete des hopitaux.*

The authors of this article have recently made a series of experiments regarding the transmittibility of smallpox to the lower animals, and also regarding the bacteriology of the disease. The animals employed were rabbits. The inoculations were made into the anterior chamber of the eye as a rule, though sometimes they were made subcutaneously or intravenously. Whilst these different processes did not produce a disease like smallpox in man, they, nevertheless, caused the death of the animal from an infectious process, which presented certain similarities to human smallpox. The most important of these consisted in the blood changes which were similar to those seen in man, and certain changes in the bone marrow, which was also similar to those occurring in the bone marrow of human beings. Intraocular inoculation of vaccinal lymph in the rabbit also produced death with changes similar to those seen after inoculation from smallpox pustules.

Regarding the bacteriology of smallpox, the authors state that besides leucocytes, the contents of the smallpox pustules always contain numerous rounded or oval bodies which stain very strongly with the ordinary coloring matters. They also found these bodies in the blood, though they were more difficult to find here, except in severe cases. In the blood they found the bodies had a little border of protoplasm. The bodies were also found in the sanguinolent effusions of hemorrhagic smallpox, and at autopsies in the different organs, especially in the spleen and the bone marrow. In two autopsies on pregnant women, the bodies were found in the amniotic fluid, and here they seemed to be motile. The authors also found the same bodies in animals inoculated with smallpox. They were able to cultivate them artificially in rabbit's blood, and at the time of their report had grown them as far as the eighteenth generation without any loss of virulence. The authors conclude that these bodies are probably the cause of the disease, and that they, in all probability, belong to the sporozoa.—*Albany Med. Annals, April, 1901.*

The Blood in Cancer and Other Diseases of the Gastro-Intestinal Tract.

Osler and McCrae (*New York Med. Jour.*, May 19th, 1900) reach somewhat different conclusions regarding the blood in

cancer of the stomach. Their conclusions are: (1) In a doubtful case a blood-count below 1,000,000 red-blood cells per c. mm. is strongly in favor of pernicious anemia; (2) while nucleated red-blood corpuscles occur in all very severe anemias; megaloblasts rarely, if ever, occur in cancer of the stomach; (3) neither an increase in the leucocytes nor special variations in the various forms appear to be of any moment in diagnosis of gastric carcinoma; and (4) the presence or absence of a digestion leucocytosis is too uncertain to be of much assistance in diagnosis. One hundred and fifty cases of gastric carcinoma have been considered in reaching these conclusions.

Jez (*Wiener klin. Wochenschr.*, 1898, XLVIII, Nos. 14 and 15) thinks that in gastric carcinoma the many unciliated reds found are to be regarded as an "expression of auto-intoxication."

Hofman (*Zeitschr. für klin. Med.*, 1898, XXXIII, parts 5 and 6, p. 460) and Chadbourne (*Berliner klin. Wochenschr.*, 1898, XXXII, No. 2) think that too much significance should not be attached to the absence of the digestion leucocytosis. Although usually wanting in gastric carcinoma, it may be present, and must be regarded only as evidence of a severe disease, affecting a large area of the gastric mucosa.

Lichty (*Philadelphia Med. Jour.*, February 11th, 1899) considers *the relation between the blood, urine and gastric contents in diseases of the stomach.* His conclusions are: (1) The average hemoglobin percentage is slightly above normal in hyperchlorhydria, and slightly below normal in hypochlorhydria; (2) the average hemoglobin percentage is greater in cases of gastric achylia than in hyperchlorhydria; and (3) with these exceptions there seems to be no definite relation between diseases of the stomach and the blood and the urine.—*Maryland Med. Jour.*

The Cause of Cancer.

Through the lay press we are credibly informed that Dr. H. R. Gaylord, of the University of Buffalo, has demonstrated beyond dispute the parasitic origin of cancer. It is a pity that such an important subject should be first given to the newspapers, because it is sure to lead to distrust of both the author and his work. It is, however, stated that Dr. Gaylord will publish his paper in the *American Journal of the Medical Sciences*, of Philadelphia, giving a full description of the organism which he describes as belonging to the class of Protozoa, and which he claims to be the sole cause of cancer.

While withholding our judgment for the time being let us remember that Dr. Gaylord claims that cancer is caused by a protozoon or animal parasite, not a bacterial or vegetable one.

OBSTETRICS AND GYNECOLOGY.

IN CHARGE OF ADAM H. WRIGHT, JAMES F. W. ROSS, ALBERT A. MACDONALD,
AND K. C. McILWRAITH.

Infant Feeding.

Many magazine articles and text-books have been written on this subject lately. The *American Journal of Obstetrics* for May has a contribution to the subject by Henry Dwight Chapin, M.D. He gives many directions for the conduct of the dairy, and concludes that: "It comes down to a matter of strict cleanliness in the production (collection?) of milk. . . . If you get a baby clean milk you are on the right way for successful infant feeding, but the trouble is we do not commence at the right end. Anything that masks the effect of dirt in milk is bad. The two principal chemical preservatives of milk commonly used are boric acid and formaldehyde. I used sterilization with the others at first in hospital and private practice, and, like most others, I have abandoned it. Why? Because the cases did not do well on it. It breaks up the fine emulsion of milk."

Dr. Zahorsky, who writes in the *St. Louis Medical Review* for April 6th, is an advocate of the Walker-Gordon system. These two writers agree in relying upon cleanliness in dairy methods to prevent infection of the milk, rather than upon subsequent sterilization of it. Dr. Zahorsky believes in laboratory modification, whey and cream mixtures being his favorites. Dr. Chapin believes in the dilution of "top-milk."

We do not believe that exact proportions of fat and proteids can be got by the Walker-Gordon methods. The movement in the direction of securing pure milk we believe to be the greatest advantage that has come to us from the researches on this question.

Suppurative Mastitis in the Newborn.

The mammary enlargement and inflammation which are not infrequently encountered in newborn children of both sexes are phenomena as yet not satisfactorily explained. Just why there should occur such glandular activity shortly after birth is not known, but that it may exist and even advance to actual supuration, as in an instance recently reported by Marvel (*Annals of Gyn. and Ped.*, April, 1901), is a well-recognized fact. As has been suggested, there may be some obscure relationship between the occurrence and certain metabolic changes taking place in the umbilical stump. It may be irritative in character from reflex excitation arising at this point. The theory of direct traumatism of the mammary gland is not proved and

cannot be accepted. There is no substantial evidence in its support. It is true, however, that the suppurative form of the disease is traumatic in origin, and is due to the mal-directed efforts of nurses and midwives to squeeze out the offending discharge. The practical point that is suggested by the occurrence of infantile mammitis, is the necessity of careful handling of the gland, and the avoidance of any attempt at evacuation of the fluid. The absence of a thick pad of pectoral muscle renders the spontaneous rupture of the pus posteriorly into the pleural sac by no means improbable; hence emolient and absorbent applications should constitute the primary treatment with early incision, should pus develop. Above all, should vigorous manipulation of the inflamed organ be avoided in the primary stage of the disease.—*Phila. Med. Jour.*, April 27th, 1901.

The cases of this nature which we have seen have subsided rapidly under the application of a bichlorid poultice of a strength of 1-3000.

K. C. M.

Puerperal Polyneuritis.

Dr. James Stewart, of Montreal, contributes an article on his subject to the *Philadelphia Med. Journ.*, May 4th, 1901. He epitomises the case thus:

A woman, aged 33, after suffering severely from vomiting, began to complain about the seventh or eighth month of her pregnancy of a sensation of numbness in the lower limbs, and shortly afterwards in the upper limbs. This was followed after a period of two months by a slowly increasing motor paralysis of all four extremities, which progressed to practical total disability. The paralysis was of the ascending type, and finally involved the respiratory muscles. The sensation to touch was diminished, but not lost, while the reaction to painful and thermic stimuli was retained. The knee jerks were lost, as well as the plantar reaction. The abdominal reflex was retained. There was considerable muscular atrophy, but no disturbance of the organic reflexes. At first the electrical reactions were normal, but afterwards there was lessening of the Faradic reaction, showing the middle form of the reaction of degeneration. (A full examination of the electric irritability was not carried out, owing to the pain induced). A pneumonia, chiefly owing to the previous parëtic state of the respiratory muscles, ended the scene two and one-half days after its onset.

A full account is given of the degenerative changes found in the peripheral nerves and spinal cord. Further, Dr. Stewart writes;

The clinical course makes it highly probable that we had to deal, first, with a neuritis, and later with a localized myelitis (poliomyelitis). The symptoms were, for several months, those

of a neuritis, rather than a poliomyelitis. In fact, at no time were there sufficiently distinctive symptoms present to enable one to say definitely that the spinal cord was involved. It was only the gradual ascending character of the paralysis (Landry type) that some three or four weeks before death gave a clue as to a probable spinal involvement. The development of the symptoms and the appearances met with in the nerves makes it clear that we had to do in the first place with a parenchymatous neuritis. The prolonged primary stage of numbness in all the four extremities, together with a prolonged period of simple weakness of the peripheral muscles pointing to a distal parenchymatous multiple neuritis as the primary lesion. All the common causes of neuritis were absent, as lead, alcohol, acute and chronic infectious diseases, septicemia, etc., etc. What, if any, relation existed between the severe vomiting (pregnancy) and the neuritis, I have no evidence to show. A number of cases of puerperal neuritis have been reported, in which vomiting had been very severe, and the only marked feature present. Dr. Whitfield, in the *Lancet* (March 30th, 1889), gives an account of such a case. Dr. E. S. Reynolds (*British Med. Journ.*, vol. 2, 1897, p. 1080) narrates a case of paraplegia after labor, which he attributes to a peripheral neuritis, and in which abortion was performed on account of vomiting. He refers to a view held by Clifford Allbut, who looks upon the vomiting of pregnancy as due to a toxin, and that the same toxin may induce a neuritis. In the considerable number of cases of multiple neuritis of puerperal origin, very few have been reported in which the onset occurred during pregnancy, nearly all being instances of post-partum neuritis, which usually is attributed to sepsis.

OPHTHALMOLOGY AND OTOLOGY.

IN CHARGE OF G. STERLING RYERSON, J. T. DUNCAN AND J. O. ORR.

A Plea for the Earlier Recognition of Squint in Children by the Family Physician.

Veasey states, in the *Medical News*, that the family physician as a rule, has his attention directed to this condition shortly after its appearance. If he is indifferent, and says, "Oh, the child will outgrow it, let it alone," in most cases the squint will become permanent, and a portion of the visual acuity of one eye may be lost. On the contrary, if the proper treatment be instituted, much can be done towards relieving the deformity, and at the same time preserving the useful vision of both eyes.

The condition is generally brought about by some error of refraction. The first thing, then, is to determine whether or not this is the case. In order to do this, a solution of atropin may be used, four grains to the ounce, a drop in each eye night and morning. Let the child wear dark glasses if old enough. If the squint disappears under the atropin, it proves that an error of refraction is present in the case. Then the patient should be carefully glassed. If the patient is too young to wear glasses, the atropin instillations—half strength—may be continued until he is old enough to do so. The author has put glasses on a child three years of age (with great benefit to the squint), but the usual age at which a patient will wear glasses is three and a half up to five years.

In many cases, the use of glasses has completely corrected the squint in a short period of time.

If the wearing of glasses fail to correct the defect, a system of orthoptic gymnastics, known as "orthoptic exercises" should be employed, and these failing, operation may be resorted to.

The Accommodation of the Human Eye.

W. Schoen (*Archives d'Ophthalmologie* abstracted in the *Post-Graduate*) attacks the Helmholtz theory of accommodation, and presents a new one in place of it. As every one knows, in accommodation for the near, according to Helmholtz, the suspensory ligament (Zonule of Zinn) is relaxed. This relaxation allows the lens to bulge forward. When the zonule resumes its tense condition, the lens becomes flattened. The relaxation of the zonule is secured by the contraction of the meridional fibres of the ciliary muscle.

It is difficult to do justice to such an article as Schoen's in an abstract, but some essential points may be put, thus:

1. The cells of the ciliary region represent a forward prolongation of the retina.
2. The fibres of the suspensory ligament (Zonule) are but a part of the ciliary epithelium.
3. The external (anterior) capsule of the lens may be looked upon as a continuation of the zonule.
4. These various parts, retina, ciliary region, zonule of zinn and capsule constitute the envelopes of a ball which contains the vitreous body and the crystalline lens.

This ball, which may be compared to an India rubber ball filled with a liquid, is enclosed posteriorly by the sclerotic, laterally by the ciliary processes and muscle, while anteriorly it is free. If one compresses a rubber ball, leaving one portion without such pressure, that part will bulge or project. Similarly, if pressure be applied to a ball formed of the retina, the ball would become more convex at the unprotected part. Such

pressure is applied when the circular fibres of the ciliary muscle contract. When this pressure takes place, no alteration in the shape of the ball can take place in a backward direction, for the sclerotic prevents it, the bulging can only take place forward. Thus accommodation takes place.

[This theory is a very interesting one, but the verdict must be "Not proven."]

Operative Treatment of Squint.

St. John Roosa (*in Post-Graduate*) gives a clinic describing Pana's operation for Convergent Squint. True squint is always concomitant, being bilateral, not monolateral. Pana's operation recognizes this fact, the patient is put under ether, and both eyes are operated on. The first step is the conjunctival incision, by which the strabismus hook may be got under the internal rectus (if that be the one to be operated upon), and this is stretched so far as to bring the cornea in the external canthus. Then the muscle is divided, the conjunctival suture is put in, and the eye bandaged. Then the other eye is operated upon. The bandages are left on twenty-four hours, and, if an under-effect is observed, a drop of a 4-per-cent. atropin solution is put in to paralyze the accommodation.

Roosa recommends this operation for its good results. By the old method there were 20 per cent. of failures, *i.e.*, an excessive or an insufficient effect. By Pana's operation only about 5 per cent.

J. T. D.

Gold-Blindness or Retinal Asthenopia.

This is a defect of vision noticed in some members of the dental profession. They lose the power of distinguishing the gold filling from the tooth on which they are working. L. Webster Fox, of Philadelphia, read a paper on the subject before the Dental Society.

Gold-blindness is really an abnormally rapid exhaustion of the vision. This condition is especially apt to occur when the eyes have been fixed upon a small object for a longer or shorter time. It is exaggerated when such a warm color as yellow is under observation. Age does not predispose to it, nor youth exclude it.

This particular form of blindness is primarily produced by the excess of yellow rays from the gold metal.

We also have to remember that in dentistry it is necessary to fuse gold plate; this is done at a great expense of carbon, which, when burning at a high temperature, produces a white light, but in reality an excess of yellow rays exists. This excessive stimulation of the retina produces the same condition as is produced by looking at the sun.

Those troubled by this form of blindness notice that they cannot distinguish the gold from the tooth, nor see the contour of the cavity they are filling. They are obliged to take a few days rest, they then can see as well as ever and return to their business—but after an interval of work, the trouble recurs. Unless proper treatment is resorted to, the intervals become shorter and shorter in which he can work.

Treatment.—The first measure is to examine the refraction, the far-sighted individual with astigmatism being liable to the affection. Then, again, it is absolutely necessary to have true muscle balance. The general condition of the patient must be made a matter of investigation, with special reference to the possibility of a uric acid diathesis. The head should be carried erect—but, as much dental work has to be done with the head inclined, we must see that no tight neckwear is used.

A pair of slightly colored violet glasses is a boon to the gold-blindness.

Gonorrhœal Ophthalmia.

At the Chicago Ophthalmological Society, A. E. Bulson read a paper on Gonorrhœal Ophthalmia. In a severe case of this kind, with much swelling of the lids, he advises, as a first measure, to divide the outer canthus, and second, flush the eyes thoroughly with antiseptic solutions every fifteen minutes night and day.

A very interesting discussion followed the reading of the paper. F. C. Hotz opposed dividing the external canthus, but advised early and thorough applications of protargol.

W. F. Coleman advises strong solutions of nitrate of silver. C. D. Wiscott opposes dividing the canthus and also opposes such frequent flushings. His treatment is to keep the edges of the lids freely smeared with sterile vaseline, this allows the pus to escape freely. Then a thorough flushing with warm boric solution every hour throughout the day, and every two hours at night, is sufficient. He also uses strong solutions of protargol (20 per cent.) once or twice a day.

W. H. Wilder prefers permanganate of potash to every other antiseptic in those cases. He applies a solution, 1 to 500 or 1 to 1,000, with a brush or swab twice daily, and has the conjunctiva irrigated every hour with a 1 to 2,000 solution of the same.

E. F. Snyder strongly endorsed the use of permanganate of potash.

G. F. Fiske mentioned the use of ice. This is an important agent, and should be used so long as the cornea is not affected. But the minute the cornea is invaded the physician should use heat.

J. Elliott Colburn has discarded the use of nitrate of silver. As a cleansing agent, he uses a solution of peroxide of hydrogen, one to five of warm water. He then flushes with warm salt solution and fills the eye full of warm vaseline, using the hardest vaseline that would cool at the temperature of the body.

W. E. Gamble uses permanganate of potash—also nitrate of silver once daily.

A. E. Bulson, in replying and closing the discussion, strongly insisted upon the wisdom of slitting the external canthus. This he does, not so much to relieve pressure upon the cornea, as to facilitate cleansing—for in this way the upper lid may be lifted much more readily.

J. T. D.

PEDIATRICS.

IN CHARGE OF ALLEN BARNES, W. J. GREIG, AND W. B. THISTLE.

Acute Appendicitis Complicating Hernia in a Very Young Infant.

Elder, in *Montreal Med. Jour.*, describes a case which was diagnosed as scrotal hernia, strangulated, and sent in for operation, all attempts at reduction failing. These attempts were tried again under anesthesia, but, he says, fortunately failed. On operating and opening the tunica vaginalis free pus appeared, and further examination revealed a hernia of the cecum and appendix. The abscess was completely walled off from the peritoneal cavity, and after doing a typical appendectomy, curetting the cavity of the abscess with pure carbolic and neutralizing with alcohol, he enlarged the ring, and as the gut was fast recovering its healthy appearance he returned the hernia to the abdomen. The case made a perfect recovery, although only seven weeks old. The diagnosis of appendicitis was not made before the operation, needless to say. C. S. M.

Koplik's Spots.

Gehassky (*Maryland Med. Jour.*, Jan. 4, 1901,) confirms his views of a year ago as to the value of these spots in the diagnosis of measles. They may not be present, but if they are they are diagnostic. Sometimes they disappear early and the mouth may show on examination only minute purplish or dark red spots where the scales have been cast off. These spots also are diagnostic. The bluish white spots when present are on an inflammatory base, and are a scaling of the epithelium of the buccal mucous membrane analogous to the scaling which appears later on the skin. They are present in no other disease.

Resorcín in Pertussis.

According to Wiltse (*Albany Med. Jour.*), Roskam's method of applying a solution of resorcín of a strength of one-third of one per cent. to the glottis in cases of pertussis, is very efficacious. In infants under a year it is most useful, the improvement in these cases being more marked than in older children, though the attack was greatly modified in all cases. Begin to use as early as possible and apply every four hours. This is the same as Moncoroo's method, except that Moncoroo used a 10 per cent. solution of cocaine first and then the resorcín. Roskam found the cocaine to be dangerous and stopped its use.

C. S. M.

Bicarbonate of Soda Dressings.

M. W. Cadimiroo has used dressings of bicarbonate of soda in thirty cases of suppuration of diverse causes: burns, fistulæ, abscesses, boils, felons, contused wounds, suppurating glands. In burns this dressing rapidly arrests the discharge and hastens cicatrization, even in cases resisting all other treatment. Likewise they give excellent results in contused wounds, which rapidly heal without suppuration and leaving very slight scars. In abscesses and whitlows equally as good results follow.

The compresses should be applied as warm dressings, renewed daily, or better, moistened in place two or three times a day, or place between the compress and the oiled silk a compress of borated cotton covered with vaseline to prevent evaporation. In the last case the dressing may remain on two days.

The chief advantages claimed for this dressing are its absolute innocence, and antiputrid and analgesic action, rendering it invaluable in infant practice.

Editorials.

PERNICIOUS ANEMIA.

In the *Medical Press and Circular* for April 3rd there appears a lengthy and able article by Dr. William Hunter, of the London Fever Hospital, on the subject of pernicious anemia. Whatever Dr. Hunter has to say upon this topic is listened to with much interest, as it is known he has devoted many years of arduous study to this disease.

He holds strongly to the position that pernicious anemia is a sepsis, and must be added to the long list of diseases that must be regarded as of germ origin. The intermittent destruction of blood, and the increasing anemia, the lemon color, hemorrhages, dyspnea, palpitation, edema, from the absorption and hemolytic action of poison in the blood; the periodic disturbances of the alimentary tract, chiefly the stomach and the intestine, and toxic attacks, as sweatings, nervous symptoms, numbness, tingling, ataxia, neuritis and sclerosis of the cord, all bear witness to its germ origin and septic nature. In this infection, oral and gastric sepsis plays an important part.

In the blood there is a degree of oligocythemia, far in excess of that caused by malignant, or wasting diseases, however long standing, and produced without the intervention of hemorrhages. While there is a great destruction of the blood corpuscles, there is a relatively high ratio of hemoglobin to each corpuscle. This high ratio is never met with in anemia from loss of blood. Hemolysis is greatly increased. The greatest degree of oligocythemia can be produced by means of hemolytic agents; but experience with disease shows that this is not easy by repeated hemorrhages, nor by wasting nutritional diseases of long standing, however profound.

The urine is high colored, due to the urobilin, which it contains. This character is marked by periodicity, and in this way is distinguished from the urobilinuria of fibrile diseases. The color is related to the degree of hemolysis, and this in turn is dependent upon the gastro-intestinal sepsis. The amount of urobilin follows closely the progress of the disease. When the

patient is well, the urine is almost colorless; when the attack becomes worse, the urobilin increases.

With regard to the gastro-intestinal tract, it must be said that this is the site of the infection; but that these symptoms do not indicate its origin, course or nature. The gastro-intestinal symptoms include indigestion, anorexia, nausea, sickness, pyrosis, salivation, acidity, retching, vomiting, gastric pain, diarrhea, etc. These symptoms are present to some extent in all cases of progressive anemia, though they may be occasionally absent for a time.

Fever is a notable feature of the disease. It is quite irregular in type, and varying in degree. It may be absent for a time. But the experience will be that there is a slight rise at night to 99 or 100 F. This irregularity is a characteristic of septic fever. The nervous symptoms are very significant of sepsis. There is weakness, exhaustion, tingling, slight loss of power or paralysis.

The cause must be sought in oro-gastric sepsis. Bad teeth and decay at their roots take a leading part in the causation. The treatment consists in mouth antiseptics, gastric and intestinal antiseptics, the use of arsenic and the employment of the antitoxic serum. The loss of the antistreptococcic serum should be at first small, about 5 c.c. There is a reaction after its administration. Under its employment there is a rapid increase in the number of red corpuscles, and a distinct abatement of the symptoms. In one case the red corpuscles were 1,500,000 when the first injection was given. The patient had four injections. The red corpuscles began to increase in numbers. When the last count was made there were 4,550,000. Digestion was good, and the urine pale. The only symptoms remaining was a slight numbness in the tips of his fingers.

PANCREATIS.

The above is the title chosen by Mr. A. W. Mayo Robson, of Leeds, for his address before the American Surgical Association. He points out that on making an abdominal section for gall stones, the head of the pancreas has been found enlarged

and a bad prognosis given. In course of time the patients recover; and some other explanation sought than malignant growth.

When the bile ducts are obstructed, the symptom of jaundice obtrudes itself on our notice. There are no such positive symptom in pancreatitis. It is true that when the pancreatic secretion is not passed into the intestinal canal, the motions become light colored, as in the arrest of the flow of bile. If glycosuria, lipuria, and fat in the stools occur they are of great diagnostic value, when the pancreatic ducts are occluded there is extremely rapid loss of weight. The pancreas is very soft and easily bruised. Comparatively slight blows on the epigastrium have caused inflammation of the organ. The pancreatic duct enters the second portion of the duodenum along with the common bile duct. An obstruction to the latter will obstruct the former. There may be a suppurative catarrh of the pancreatic duct analogous to suppurative cholangitis. Glycosuria, lipuria and fat in the feces are rare and require very considerable destruction in the gland before they occur.

The essential and immediate cause of pancreatitis is bacterial infection. In these cases there is usually the history of lithiasis, injury, gastro-duodenal catarrh, ulcer, typhoid fever or influenza, or some such condition. The most usual channel is through the duct, though the infection may arise from the blood in pyemia, or by direct extension from the adjoining tissues. The association of pancreatitis is very frequent with gall stones. When stones are found in the common duct the head of the pancreas is found enlarged and diseased. Thus cholelithiasis give rise to disease of the gall bladder and also pancreatitis.

Fat necrosis is commonly found in connection with pancreatitis. The fat splits into fatty acids and glycerine. The latter is absorbed, but the former unite with the calcium salts in the cells, forming yellowish white patches in the subperitoneal fat. There may be hemorrhages into the pancreas as the result of the cholemia. This tendency to hemorrhage is very marked in the subject of pancreatitis along with gall stones.

The treatment of an acute attack is much the same as for peritonitis in the upper abdominal region. The pain is very acute, and must be relieved. The collapse may demand stimulants. The symptoms at first are very indefinite, and would

justify surgical interference as soon as the collapse has passed off. As in perforative or gangrenous appendicitis an early evacuation of the septic matter is necessary, so in this affection an early exploration from the front is demanded. The subacute and chronic cases of pancreatitis call for surgical intervention to evacuate the pus and relieve the distention.

ACUTE INSANITY.

Tempora mutantur et nos mutamur in illis.

In nothing is the truth of the above saying better borne out than in the study of medical opinion regarding acute insanity. The time was when the maniac was regarded as under the spell of some evil spirit; the disease was looked upon as of supernatural origin.

Slowly the truth began to dawn upon the medical horizon that acute insanity was a disease of the mind. But what was the mind? For answer to this question one might just as well go ask the winds as look up the pages of works treating of mental diseases and insanity.

But there came a further advance, when it was held that acute insanity, like all forms of insanity, was due to disease of the brain. The brain had now come to be regarded as the organ of the mind. Disease of the brain therefore caused derangement in the thought, language and conduct of the person. What the disease of the brain was that underlay these outbursts of acute insanity had not been defined, nor could it in the condition of medical science at the period when Esquirol, Pinel and Pritchard did their great work.

Gradually light came over this portion of medical research, as has been the case in so many other fields of scientific investigation. The important studies of Bouchard on auto-intoxication from the alimentary tract; the work of Horsley on the thyroid gland; of Ord, on myxedema; of Klippel, on the relationship of hepatic disorders and mental disorders—all go to show that toxins in the system must be regarded as the cause of acute insanity. Every clinician is familiar with the deliria of the acute infections.

Of the toxic agents that cause insanity the following may be

mentioned : 1. Those taken into the system, as alcohol, cocaine, morphia. 2. Those generated within the system, as the poisons of syphilis, rheumatism, influenza, and other infections. 3. Those formed as the results of disordered metabolism, as in Bright's disease, diabetes, myxedema. 4. Those that arise in connection with the digestive canal, in consequence of functional derangements of these organs. The fact that under proper treatment so many cases of acute insanity recover, is very strong proof that these attacks are due to a temporary cause, and that there is no organic disease of the brain.

In cases of acute delirious mania cultures of staphylococcus pyogenes albus, and aureus, and micrococcus tetragenus have been found. Other organisms have been also found. It has been made a matter of close study that in acute insanity the gastric juice, urine, and sweat possess specially toxic qualities. In many cases great benefit has arisen from the washing out of the stomach and other eliminative plans of treatment.

CANADIAN MEDICAL ASSOCIATION.

We are pleased to be able to say that arrangements for the Winnipeg meeting (August 28th to 31st next) are progressing favorably. From what we can learn the gathering promises to be large and representative. Dr. O. M. Jones, F.R.C.S. (Eng.), Vancouver, will deliver the address in surgery, and Dr. J. R. Jones, Winnipeg, the address in Medicine. Several interesting discussions are arranged for, and the social side is being looked after as only a western city can do it.

There is to be an outing to Fort Garry, and on Saturday, the 31st August, an excursion to Brandon given by the profession of the Prairie City.

The railways have promised a single fare return rate on the certificate plan, good going August 20th to 28th, and good to return, leaving not later than September 15th. If the all-rail going trip is taken, and one desires to return by the lake route a ticket will be issued on payment of \$4.25, just enough to include meals and berth. If one desires to return by rail the ticket is issued *free*. This makes it possible for every one to attend, and a large number should, for we all have friends who

are expecting us to visit Manitoba, the North-West, or British Columbia, to all parts of which return tickets will be issued *after* the meeting for single fare from Winnipeg upon presentation of the certificate of attendance.

The General Secretary, Dr. F. N. G. Starr, Biological Building, Toronto, will be glad to furnish any information to persons intending to take advantage of this unusually cheap trip to the West.

ONTARIO MEDICAL ASSOCIATION.

The preparations for the annual meeting on June 19th and 20th are almost completed. The Committee on Papers, under the guidance of Dr. H. I. Machell, have arranged for a number of discussions on important subjects. Gastric Ulcer, which has of late become of so much surgical importance, will be discussed very fully. It will be introduced by two papers. One medical, by Dr. J. D. Edgar, of Hamilton; the other surgical, by Dr. Henry Howith, of Guelph.

Empyema, another condition of interest and importance, will be treated in like manner. Dr. Ferguson, of London, will introduce the medical aspect of the case, and Dr. Turnbull, of Goderich, the surgical. It is to be hoped that a very general and full discussion of these subject will be indulged in by those interested. Dr. R. W. Garrett, of Kingston, will introduce the subject of Extra Uterine Pregnancy. Dr. Charles P. Noble, of Philadelphia, will be the guest of the Association. His paper will treat of "The Complications and Degenerations of Fibroid Tumors of the Uterus," with reference to the treatment of these growths. Dr. Prevost, of Ottawa, will present the subject of "Intraspinal Cocainization." Dr. Elliott, of Gravenhurst, will discuss the "Treatment of Tuberculosis in Sanitaria."

The Secretary has received a fair number of papers for presentation, but there is still place for a few more. Would members intending to take part in the meeting kindly send in the titles of their papers as early as possible that they may appear on the provisional programme, which will be ready early in June.

Arrangements will be made with the railways as formerly, and the members are urged to make use of this reduction,

obtaining certificates when procuring their tickets that they may avail themselves of the reduced return rates. The greater number of certificates thus procured the greater will be the benefit derived. It is earnestly hoped that this meeting of the Provincial Medical Association will be encouraged and well supported and attended by the profession from all parts of Ontario.

DEATH OF AN EMINENT FOREIGN PROFESSOR.—Joseph Fodor, M.D., Professor of Hygiene at the University of Budapest, has recently died. He was born in 1843, studied under Pettenkofer at Munich, and later under Baron Liebig. Dr. Fodor was, after his master Pettenkofer, the best known of the European sanitarians, and did much toward rendering Budapest the healthy and beautiful city it now is. He was a man of many gifts, and was for some time joint editor of the medical journal *Orvosi Hetilap*.—*Medical Record*.

Personals.

Dr. J. T. Duncan has removed to 45 Bloor St. East.

Dr. Gowans, of Horning Mills, paid a visit to his friends in Toronto last month.

Dr. J. M. Cotton is rapidly recovering and recuperating at the "Welland," St. Catharines.

Dr. R. M. Calder, of Petrolea, has been appointed associate coroner for the County of Lambton.

W. T. McArthur, M.B. (Tor. '95), of Los Angeles, Cal., recently passed the examination for the degree of F.R.C.S. Edinburgh.

Dr. J. A. Temple is, we are pleased to say, able to be out again after the serious runaway accident which confined him to his room for some weeks.

Dr. R. Dwyer, who has been engaged in post-graduate work in London for the past year, is expected to return and resume his duties at St. Michael's Hospital early in June.

Drs. Adam Wright and W. P. Caven, after spending some time in London, left for the continent May 14th, for a trip to Paris down the Rhine and through Switzerland. It is anticipated that they will be home about the 1st of July.

Dr. Price-Brown returned last week from a short visit to New York and New Haven. While in the latter city he was elected Fellow of the American Laryngological Association, which held its annual meeting this year at Yale University.

Book Reviews.

Transactions of the American Dermatological Association at its Twenty-fourth Annual Meeting, May, 1900. Official report of the proceedings by FRANK HUGH MONTGOMERY, M.D. Chicago: P. F. Pettibone & Co.

The volume before us consists of 232 pp. octavo. The articles are of decided merit, and deal with such important subjects as the forms of dermatitis, syphilis, parasites, malignant diseases. There are a number of illustrations. Those who are interested in skin diseases will find much pleasure in the perusal of this volume. Such contributors as Stilwagon, Bowen, Wende, Jackson, White, Elliott, Corlett, Bronson, Morrow, Hyde, etc., are a guarantee of the standard of the papers.

A Treatise on Orthopedic Surgery. By ROYAL WHITMAN, M.D., of the Orthopedic Department of the Vanderbilt Clinic, the New York Polyclinic, the Hospital for the Crippled, and the Hospital of St. John's Guild. 457 illustrations, pp. 650 octavo. Lear Brothers & Co., Philadelphia and New York, 1901.

There are now many good works on the subject of orthopedics. One naturally asks, why a new work? The present volume answers this question by its own merits. It is up-to-date in pathology, symptomatology and treatment, both medical and surgical. The illustrations are of special value, as they are in most cases original and from photographs. Although this is one of the latest works on the subject, it is also one of the best. The well-known publishers have spent no pains in making the book attractive in every detail. The book is a storehouse of valuable information on orthopedics.

Transactions of the American Pediatric Society. Reprinted from Archives of Pediatrics.

In a work such as this we see how leaders of the profession do their work, how they differ in opinion, and honestly try to set others right or be set right themselves. If they do not understand they ask questions. If society transactions were always published, papers, discussions and all, there would be better quality of work done all round. Men of ideas who could not or would not write them up for publishing would have a chance of expressing them and giving others the benefit. Asking questions also is a benefit to many besides the one questioning, and the discussions in this work are as important in their way as the papers. If a society is worth having and attending, its transactions are worth publishing. In this

country at least there seems to be a great waste of labor in getting up papers for the benefit of a few only. Those who write books have by no means a monopoly of the knowledge of medicine, and if society transactions were all published the mass of good things given to physicians would astonish us.

Nursing Ethics. By ISABEL HAMPTON ROBB. J. B. Savage, 90-92 Wood Street, Cleveland.

The author of this little work evidently nurses for the love of it. If her ideas can be put into practical use the standard of the nursing profession will be raised to a degree not to be estimated. Every nurse should read and ponder over this book, as, more especially, should all having the training of nurses in charge. The ideal the author sets is high, and we fear that in our day at least it will not be attained. Nurses, like the members of a profession closely allied to them, are but human, and are likely to remain so until the close of the "time, and times and a half." Of professional etiquette we see a good deal in both of ethics little or more. However, the book cannot but do good, and should have a wide circulation.

Saunders' Medical Hand Atlases.—External Diseases of the Eye. By PROF. O. HAAB. Edited by G. E. De Schweinetz, Professor of Ophthalmology in Jefferson Medical College, etc. 76 colored plates and 6 engravings. Philadelphia: Published by W. B. Saunders.

The number of full page colored plates in this work (76) fully justifies its title—an "Atlas" of the External Disease of the Eye. The plates are numerous enough to illustrate almost every form of disease in this connection. And they are exceptionally well done. These plates are of value to the ophthalmologist, but they will be of special service to the busy physician, who has to see eye cases only occasionally. Many a doubtful diagnosis will be cleared up by a reference to them. They are all good, but among the best are—those showing abnormal conditions of the lachrymal sac, eczema of the lids, hordeolum (stye), dermoid tumor, gonorrhoeal conjunctivitis, diphtheritic conjunctivitis, pterygium, hypopyon (pus in the anterior chamber), syphilitic iritis, senile cataract, and zonular cataract.

But this book is more than an atlas, for it gives the pathology, diagnosis, prognosis and treatment with quite sufficient fulness, of the diseases on which it treats. The editor has done his work with great care and admirable judgment. Where the lines of treatment followed upon this continent differ from the German, the editor has given the alternative methods. The reader thus has the advantage of comparing the methods of treatment:

The scope of the work can be judged by the heading of the chapters: I. The Examination of the Eye in Disease; II. Diseases of the Lachrymal Apparatus; III. Diseases of the Eyelids; IV. Diseases of the Conjunctiva; V. Diseases of the Cornea; VI. Diseases of the Sclera; VII. Diseases of the Iris and Ciliary Body; VIII. Diseases of the Lens; IX. Diseases of the Vitreous Body; X. Glaucoma; XI. Diseases of the Orbit. Whether judged by the plates or by the text, the book is an admirable one, and forms a thoroughly reliable guide to the most advanced treatment of the diseases spoken of.

J. T. D.

The Stethoscope and Phthisis.

The characteristic of the newly-qualified practitioner is an implicit reliance on instruments for facilitating physical examination. He hardly looks at the patient, but proceeds with an enthusiasm tempered by anxiety to explore the various organs which are accessible to the stethoscope or other mechanical appliance. As he acquires experience he learns that there are other means of arriving at a conclusion, as indeed there must be, seeing that our predecessors were by no means contemptible diagnosticians at a time when the sphygmograph, the stethoscope, and the ophthalmoscope were unknown. It is, perhaps, especially in phthisis that too blind a devotion to the sounds revealed by the stethoscope is apt to mislead. The absence of audible evidence of internal lesions is a remarkable fact in many cases of even advanced phthisis, and physical signs may come and go in a way that baffles explanation and discourages the investigator. In such cases a wider survey of the patient will usually reveal indications amply sufficient to enable the physician to arrive at a diagnosis even in the absence of stethoscopic signs. The latter when present are important, though not infallible, but it is important that the practitioner should not put on blinkers and shut out from view the information to be gathered from an attentive inspection of the patient viewed as an independent and composite organism. The microscope is another instrument which often fails to give positive support to a diagnosis which the clinical signs fully justify. In the words of the writer in a recent article in the *Polyclinic*, "We must not on account of these facts underrate the value of the instrumental aids to diagnosis which modern science has put into our hands, let us however carefully keep them in their place and not permit them to usurp an authority to which they are not entitled, above all let us not allow exaggerated trust in them to displace the most sedulous cultivation of other and older methods.—*Medical Press Circular*."

Selections.

SURGICAL HINTS.

Little children should never be operated on during very hot weather if the surgeon can choose his own time. They are very apt at this time, however carefully they are fed, to develop a severe form of intractable diarrhea.

Atheroma of arteries does not contra-indicate amputations so much on account of the danger of hemorrhage as because, in these cases, the flaps slough easily owing to lowered vitality. Hence it is necessary to select the operation that will give the best blood supply.

Cancer occurring in a breast, after the other breast has been removed for this disease, ought to be operated on if there is no sign of recurrence on the operated side, because the new growth must be considered as a primary lesion rather than as a result of metastasis.

It is better to discard carbolic acid entirely in the treatment of wounds of children. Not only do they develop gangrene very rapidly from its continuous effect in wet dressings, but fatal cases of poisoning have been known to occur from the application of so weak a solution as 1-40.

In small abscesses, occurring in infected wounds, whether they involve the whole or only a portion of the wound, there is no better treatment than the removal of stitches, washing out with peroxide of hydrogen, and thoroughly painting the pyogenic surfaces with tincture of iodine.—*International Journal of Surgery.*

Chrysarobin in Hemorrhoids.

Pouffe (*Journal des praticiens*) has successfully used chrysarobin, in suppository or ointment, in bleeding hemorrhoids, in the following combinations:

- | | | | |
|----|--|-------|------------------|
| R. | Chrysarobin | | 1½ grain |
| | Iodoform | | ⅞ ths of a grain |
| | Extract of belladonna | | ⅛ th of a grain |
| | Cacao butter | | 30 grains |
| M. | —For one suppository. Two or three to be used daily. | | |
| R. | Chrysarobin | | 22½ grains |
| | Iodoform | | 7½ " |
| | Extract of belladonna | | 15 " |
| | Vaseline | | 300 " |
| M. | —Fiat unguentum.— <i>N. Y. Med. Jour.</i> | | |

For Lepra, Psoriasis, and Lupus.

Progrès médical for April 27th ascribes the following to Bocquillon-Limousin:

℞ Gynocardic acid	12 grains
Chaulmoogra oil	150 "
Vaseline	300 "
Paraffin	75 "

M.—For local application.—*N. Y. Med. Jour.*

The Treatment of Leucorrhœa.

According to *Ἱατρικὴ Πρόοδος* for March, Snegnirev recommends a vaginal injection of lactic acid, three per cent.

The same journal gives the following formula:

℞ Potassium chlorate, }	of each..... 30 parts
Tincture of opium, }	
Tar	470 "

M.—From two to three soup-spoonfuls in a quart of water as a vaginal injection night and morning.—*N. Y. Med. Jour.*

Treatment of Eczema in Children.—By DR. LEISTIKOW (*Monatsh. f. prakt. Dermat.*)

The author says that in the treatment of eczema squamosum, as well as in mild forms of papular and vesicular eczema, the following combination is sufficient:

℞. Adipis lanæ,	
Zinc oxid,	
Amyli, aa.....	5.0
Vasel flav.....	10.0
Hydr. oxid. flav.....	0.25-0.50

In eczema rubrum or crustosum, zinc oxid and ichthyol mull ointment is indicated at once. There are moist eczemas, however, which constantly recur and resist the former methods of treatment. In such cases and in old cases of papular, and especially in pruriginous and herpetoid eczemas of childhood mild pyrogallic ointments give the best results. They should always be used and are excellent for the relief of itching. The more acute and moister the eczema the milder the pyrogallic ointment ($\frac{1}{2}$ -1 per cent.); it may be given in 2 or 3 per cent. strength. During the treatment urinary examination must be made, though ill-effects have not been observed.—*The Post-Graduate.*

Mental Therapeutics.

Suggestion has pretty well supplanted hypnotism in the practice of physicians. John B. Huber, in the *Trained Nurse and Hospital Review*, says :

The art of suggesting healthful ideas is one of the most important weapons in the armamentarium of those who treat the sick. This is another way of saying that the doctor and the nurse have inspired faith in the patient. When the doctor states his conviction that such and such a symptom will disappear and that he will find the patient better to-morrow, he suggests the idea of improvement, which belief in his statement impresses upon the patient's mind. When next he declares his expectation that the patient will be able to sit up on the following day, the suggestion stimulates the latter's latent energies to the extent of realizing the expectation. When, then, he declares he will be much disappointed if he does not find the patient awaiting him in the sitting-room on the occasion of his next call, the latter is aroused by the same processes to the point of obeying the suggestion.—*Charlotte Med. Jour.*

Treatment of Acute Gastralgia.—By DR. T. SIDNEY SHORT (*Birmingham Med. Rev.*)

Gastralgia is essentially a condition in which it is the patient who should be treated and not the disease. The functional activity of the stomach is not at fault, so that changes in diet as such, or helps to digestion in the way of pepsin, etc., are not of much use. A complete change, with alteration of occupation and freedom from worry, will often stop the attacks. If this is impossible—and in the very people who suffer from gastralgia it usually is—the best thing to do is to rest the stomach absolutely. This should be done by keeping him lying down and feeding either by rectum, or if per os, by giving them as little as possible. Two or three days' smart purging at the commencement has seemed to the author to be especially valuable. For the attacks themselves, morphine and cocaine may be given in a draught. Sharp counter-irritation over the stomach by blistering is often very useful, just as it is in other forms of neuralgia. In one of the author's cases the application of the faradic current to the pit of the stomach completely removed the pain in a few minutes, but it did not stop the recurrence of the attacks. The relief afforded by the interrupted current, increased in strength until actual pain is produced, in cases of sciatica is beyond question, and the author thinks similar relief may be anticipated in cases of neuralgia of the stomach so long as no inflammatory condition is present.—*The Post-Graduate.*

A Literary Moral.

The New York *Tribune* of Sunday, March 31st, quotes these remarks from the London *Academy*: "An Edinburgh correspondent sends us the following: 'Addressing his students last week on the intoxicants, Dr. Wylie, the professor of medicine in Edinburgh University, adduced an experience of his that is not without its literary moral. He was called one day to see a young man. As he was entering the house the patient's sister exclaimed: "Oh, it's all that horrid book!" Inquiry elicited the fact that the patient's favorite reading was "Sherlock Holmes." The young man was in a very low state, and his tell-tale arm was dotted with hypodermic punctures. His admiration for the most popular paper detective had betrayed him into the cocaine habit. Taking this case as a text, Dr. Wylie permitted himself a sentence or two of severe stricture on Conan Doyle's knowledge of the action of drugs: "If such a man as Sherlock Holmes had existed, dosing himself as depicted by his creator, in a few weeks his opinion on anything would not have been worth having." Cocaine, according to Dr. Wylie, is even more disastrous than morphine. "It renders its subject vain-glorious and pleased with himself, but blunts the intellect and blasts the imagination."'"—*Medical Record*.

Treatment of Cough.

Weiss (*Die Heilkunde*) states that the velocity with which the air is expelled during violent coughing is double that of the wind during the worst hurricane. It is, therefore, evident that great force is expended, and a violent laryngeal cough may completely exhaust the patient. Treatment should be directed to the cause of the cough when this is known. Too often, however, symptomatic treatment is alone possible. If crepitations are present in the lungs and are due to secretion, the indication is to render expectoration as easy as possible. Apomorphine is probably the most valuable expectorant. Difficult expectoration frequently depends on the viscosity of the secretion. To prevent the secretion becoming too dry and viscid, the air should be kept moist by the bronchitis kettle, Siegle's spray, or other means; the rate at which secretion dries depends entirely on the degree of moisture of the atmosphere. To combine expectorants with narcotics, as is so often done, is irrational. If a narcotic is required as well as expectorants it should be given independently, and only when there is some special indication, such as the necessity for a good night's rest. Even when a narcotic is given it is, as a rule, inadvisable to suppress coughing entirely. Heroin, the diacetic-acid ester of morphine, is the most satisfactory drug. It does

not weaken the power of expiration, but lessens the violence of the cough. It not only diminishes the irritability of the peripheral nerves, but has a specific action on respiration. The respirations become fuller and deeper, while the frequency is diminished. The soluble hydrochloride of heroin is the best salt. For the cough of cardiac patients it may be given in pills with powdered digitalis. Codeine is less satisfactory. If the cough is painful dionine acts excellently. This also is a derivative of morphine, but has retained the analgesic action rather than the specific action on cough and respiration peculiar to heroin. For all forms of spasmodic cough, and especially for whooping-cough, belladonna is probably the most useful drug. It stimulates the respiratory centre, paralyzes unstriated muscle, and anesthetises the peripheral nerve-endings.—*British Medical Journal*.

Local Anesthesia.

Many surgeons make use of local anesthesia extensively, indeed, it no doubt would be more proper to say that quite all advanced operators use local anesthesia more or less, and that there is a constantly increasing number who are giving the method a wider and wider application. There is a limit, however, to the usefulness of local anesthesia; in other words, there is a border-line upon one side of which local anesthetic means can be satisfactorily applied, but beyond which general anesthesia must be depended upon.

Local anesthesia may be selected for almost all minor operations in or on parts of the body that can be readily reached, and where local anesthetic means can be thoroughly applied. The dangers of the subcutaneous injection of a 1 per cent. solution of cocaine seems to be very slight—certainly slight when compared with the dangers of general anesthesia—although a degree of care should always be exercised. The solution and syringe should, of course, be aseptic; the injections should be made into the loose subcutaneous tissue slowly; and, where necessary, the integument over the area to be anesthetized may be rendered insensible to the needle punctures by using ethyl chloride.

Small tumors can then be painlessly removed, fingers and toes amputated, aspirations done, and minor plastic operations performed.—*The Clinical Review*.

Formaldehyde.

The usual strength (ten to fifteen drops of a 40 per cent. solution to a pint of water) employed in a surgical wash should not be used about the eyes. The conjunctiva is too sensitive for a solution of such potency.—*The Clinical Review*.