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EDITORS:
ADAM H. WRIGHT, B.A., M.D. Tor.
EDMUND E. KING, M.D. Tor.

ASSOCIATE EDITORS:
JAMES F. W. ROSS, M.D. Tor. JOHN CAVEN, B.A., M.D. Tor.

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TUMORS OF THE RECTUM.*

BY GEORGE BINGHAM, M.D.

GENTLEMEN,—The specimen which I have to show you to-night is one of malignant adenoma of the rectum. I believe the specimen will possess for you some intrinsic interest of its own, and meanwhile it will serve in part as a text for a few remarks upon tumors of the rectum. This wide suoject I shall not attempt to exhaust, but shall merely indicate the more common, benign and malignant neoplasms to be found in the large intestine, and more particularly in the rectum, pointing out the distinctive pathological characteristics of each.

Owing to the fact that a peduncle is a characteristic common to most benign growths in the lower bowel, the term rectal polypus has been used in a manner altogether too indiscriminate, from a

*Read before the Pathological Society of Toronto.

pathological point of view; and while it is, perhaps, as well to retain the term, yet one should not lose sight of the fact that it is used to designate varied pathological processes.

1. Of benign neoplasms in this locality the most commonly met with is the adenoma or mucous polypus. This growth, most frequently met with in children, consists in a hypertrophy of the glandular structure of the intestine. In its formation Lieberkuhn's crypts become much enlarged and elongated, and the columnar cells lining them greatly increased in numbers, thus producing a projection upon the mucous surface. This gradually increases in size until it interferes somewhat with the passage of fæces, which forces the tumor downward, making tension upon its mucous attachment until a pedicle is formed, which consists of mucous membrane and the blood-vessels and lymphatics of supply. These polypoid growths, which are single or multiple, vary in size from that of a pea to that of a hen's egg, or even larger.

The lobulated surface of the mass is reddish in color, unless nipped by the sphincters when it becomes livid. So far the neoplastic process has been quite superficial, and there has been no tendency to pass beyond the basement membrane, nor to invade the deeper tissues with new glandular and cell elements. Nor is there any tendency toward metastasis. Under the microscope there is still a regularity of arrangement in the cells and follicles in marked contrast to the irregular and haphazard deposition of the new tissue in a malignant growth.

2. Fibroma of the rectum or fibroid polypus, though not so common as the adenoma, yet appears to be a pretty constant accompaniment to long-standing internal piles, and to anal fissure. It consists essentially in an increased connected tissue formation, superficial in character and covered by the mucous membrane, which is usually dragged down to form a pedicle.

3. Papilloma, or villous polypus of the rectum, is a rare disease, though a similar growth in the bladder is frequently met with. In the rectum it consists in a projecting mass of mucous papillæ covered by columnar epithelium. The pedicle in this case is usually broad; indeed, the growth is sometimes sessile. The peculiar warty appearance is fairly characteristic. It is largely confined to adult life, and tends to bleed freely when examined, in addition to secreting mucus abundantly.

4. Mucoid cystoma, and

5. Dermoid of the rectum are rare, and their pathological characteristics too well known to be considered.

6. Lipoma of the rectum is a rare form of benign tumor, originating in the submucous or subperitoneal fat, and, according to Thomas, incapable of giving rise to malignant disease unless first converted into fibroma or myoma.

7. Other forms of benign growths, such as angeioma, lymphoma, myoma, chondroma, are seldom met with in the rectum or large intestine.

It is to be noted that there are certain characteristics common to the group of benign tumors of the rectum and serving to differentiate them from the malignant growths about to be considered. These features of the benign tumor are :

(1) The pedicle.

(2) No invasion of the deeper tissues.

(3) No tendency to break down *per se;* ulceration or sloughing usually caused by mechanical pressure.

(4) No metastasis.

(5) A tendency to encapsulation.

(6) No constitutional effects.

(7) No tendency to return when removed.

(8) Of the malignant neoplasms of the rectum the one most commonly met with is

(1) Adeno-carcinoma or malignant adenoma. It is sometimes the result of cell changes in the benign growth and may develop primarily from the lymphatic tissue of the bowel. Under the microscope the constituent parts of benign and malignant adenoma are seen to be practically identical. The difference appears to be in the arrangement of the cells and follicles and their relations to surrounding tissues. In adenoma the new elements are circumscribed and often encapsuled, not extending beyond the basement membrane, while the essential characteristic of the carcinoma is the irregularity in the arrangement of the new elements and their invasion of the deeper tissues. While the benign growth tends to invade the lumen of the bowels while attached to its wall by a pedicle, the tendency of the carcinoma is to remain sessile, invading the deeper structures of the bowel wall. This is well shown in the specimen presented tonight. The surface of the carcinoma tends to break down and ulcers appear upon its surface, sometimes very early in the disease. A catarrhal condition of the bowel above the new growth leads to a mucous diarrhœa which, after a time, is not controlled by the invaded sphincter. The glandular cavities of the growth become distended with mucoid material, leading to degenerative changes in the deeper tissues; and at the same time there is an increase in the

interglandular fibrous tissues (Esmarch). As the malignant process is frequently engrafted upon a benign polypoid growth it follows that the carcinoma has sometimes a distinct pedicle. Yet this is not the rule. The malignant process is usually a primary one, and the resulting mass is sessile, tending to invade the structures beyond the muscularis mucosa. Frequently the whole circumference of the bowel is invaded by a ring of the new tissue, leading to obstruction and a catarrhal condition of the bowel above the seat of invasion. This is true of the specimen presented. While a sero-saneous discharge is always present in these cases, yet hæmorrhage to any extent has not been noticed in the cases I have seen.

The disease when once established progresses rapidly and owing to the irritation to which the parts are subjected, inflammatory and necrotic changes are soon apparent. Neighboring organs, such as the prostate, often become involved early and add to the suffering. The vitality of the patient is undermined, the cachexia is established and rapid destruction of health ensues. Metastasis does not usually occur in the early stages. The pelvic and lumbar glands and those about the efferent vessels of the rectum become progressively affected, sometimes becoming so large as to be detected, on palpation, through the abdominal wall; and next the liver is invaded. Later, the spleen, kidneys, lungs and peritoneum may become the habitat of secondary foci. The disease is rare in early life, but comparatively frequent after middle age.

(2) Colloid carcinoma, in which the cancer cells have undergone colloid change, is rarely found in the rectum. It assumes the form of a distinct translucent mass projecting into the bowel lumen, or else a diffuse invasion of the bowel wall. The jelly-like appearance of the growth is characteristic.

(3) Sarcoma is also rarely found in the rectum. Made up of embryonic connective tissue, it sometimes presents an enormous lobulated tumor, filling the lumen of the bowel, or else an elongated stricture of the bowel is produced by a conversion of almost the entire thickness of the bowel wall into the new tissue.

The differential diagnosis of carcinoma of the rectum is to the clinician exceedingly important. Benign growth, tubercle, syphilis, and traumatism may each simulate the more grave condition, but the use of the microscope will, as a rule, serve to elucidate the matter. At the bedside, too, the careful observer will find many differential points as to history, gross appearance, and progress of the disease; but, as this is not a clinical society, I refrain from further reference to this point.

The specimen which I present is from the rectum of a young man æt. 23, who died September 23 last. The mass was under observation about 2½ months, the patient and parent refusing operation. Another operation for an intercurrent affection was rendered necessary, and to this he submitted. The patient first applied for relief owing to a condition of obstruction of the bowel, and *did not* complain of pain, with the exception of some irritation upon defæcation. Marked anæmia developed, the result of progressive auto-intoxication ; disturbances of the heart and stomach ensued, and he died apparently of exhaustion.

Slight enlargement of the mesenteric glands was noted *post mortem*. The solitary glands of the large intestine were enlarged, and had several small ulcers on the follicles. The liver was soft and friable, otherwise normal. There was marked cloudy swelling of the kidney, and the cortex was thickened. There was chronic thickening of a segment of the mitral valve. Walls of the stomach thickened and glands prominent. The other organs normal, with the exception of the lungs, in which some emphysema was noted. Cultures from the peritoneum were sterile ; those from the heart's blood showed B. communis coli.

SOME CONSIDERATIONS IN THE MANAGEMENT OF PREGNANCY.*

By Dr. E. E. Harvey,
Norwich.

TO the general practitioner a knowledge of how to successfully treat the various and peculiar ailments of pregnancy is of the greatest importance. The curse of Eve, in the closing years of this present century, seems to have descended upon womankind with unique ferocity, and the storehouses of medical knowledge are often drawn upon to the utmost extent without affording that relief which an agonized motherhood has every reason to expect. It is said of John Hunter that he divided all diseases into three classes, those sulphur would cure, those mercury would cure, and those the devil himself couldn't cure. It would seem from the indifference with which many practitioners regard the ailments of pregnancy, that they would relegate these to the latter class.

There is no doubt that our system of education is directly responsible for very much of the pain suffered by pregnant women, especially primipara. Young girls, while passing through the period of puberty,—that period in which a mighty revolution, mental, physical, and physiological, is effected; that period in which the greatest care should be taken, and the most complete rest and freedom from nervous worry ensured, are forced, in our schools, to undue mental activity and physical inactivity. A more complete system for the deterioration of the female sex could scarcely be devised. The school-room air, too often impure, favors anæmia: the sedentary habits of the pupil cause a lack of muscular development: while the excessive stimulation of the nervous system results in an overdevelopment of nervous tissue in the body. The ganglia are hypersensitive, and, as it were, constantly in a state of unstable equilibrium. Insufficient clothing induces colds and consequent pelvic inflammations. The waste products are not thoroughly eliminated, but remain to further weaken the system.

*Read before the Ontario Medical Association, Toronto, June, 1897.

The beginning of menstruation in such girls, even without membraneous dysmenorrhœa, may be attended with severe pain, the uterine congestion stretching the hypersensitive nerves and ganglia. And, when the *affliction* of pregnancy—for such in her case it is—overtakes her, the accumulated misery resulting from the violation of half-a-hundred hygienic laws, called (by courtesy) *civilization*, descends upon her undeserving head.

The fecundated ovum, in healthy women, imparts to the generative organs in particular and to the whole system in general a distinct and peculiar increase in nutritive activity. The assimilative powers of every organ and tissue are increased. This is true, indeed, of every case. We are often astonished that pregnant women can remain comparatively well and strong, and yet retain so little food. Her increased assimilative power is the explanation. What she does retain is used to the very best advantage. But in women who, in girlhood school-life, have had their muscles under developed and their nerves over-developed, the changes induced in the uterus and surrounding structures are often attended with extreme distress. This is greatly increased by anæmia. It is, of course, impossible to speak with absolute accuracy in attempting to describe the differences in the process of gradual enlargement in pregnancy in a healthy and an unhealthy uterus, but it would appear to be somewhat as follows: The increase in the size and structural elements of the muscular and nervous tissues, instead of proceeding *pari passu*, as they ought to do, proceed in such a manner that the muscular fibres are left smaller, weaker, and less developed in every way, while the nervous ganglia are larger and more highly sensitive. This disproportion is doubtless the cause of much of the pain, especially in the later months, when the pressure of the expanding ovum causes the uterine structures to stretch. When actually brought to labor the "pains" are grinding but ineffectual. The weak uterus soon tires out. The labor is prolonged, agonizing, exhausting. The natural powers proving ineffectual, instrumental interference is necessary to complete deliverance and save the lives of mother and child.

ABDOMINAL PAINS.

These are of three varieties, arising from as many sources. When from the womb they begin shortly after conception. They occur principally in the anæmic and the neurasthenic. First there are a few darting pains, occurring irregularly, followed by a general soreness, and a feeling as though a weight were bearing heavily on the lower pelvic structures. As the womb continues to expand these

abnormal symptoms are succeeded by crampy pains, sometimes light, oftener quite severe, and becoming more severe as time goes on. I have seen those pains so severe, in the later months of pregnancy, that the patient could not rest in any position,—could scarcely sit up or walk at all. Each succeeding day brought only agony and the prospect of increased agony.

When these uterine pains arise from the remains of an old metritis or parametritis, the administration of the bromides, especially bromide of sodium, with fld. ext. hydrastis Canadensis, is indicated, and should be given in full doses. Ergot, if employed at all, should be carefully given, lest a miscarriage be induced. Much may be done, also, by depletion with tampons of glycerine, or glycerine and solid ext. bellad. rad. introduced behind the cervix, or to either side as indicated. It has been frequently noticed that the pregnancy itself seems to have a resolvent action upon the inflammatory exudation which causes adhesions between the womb and neighboring structures, much of it, apparently, being absorbed. To increase this absorption, alteratives, as mercury and the iodides, should be used.

Women suffering from endocervicitis are unlikely to conceive, but when they do, the usual treatment in such cases, if carefully performed, is followed by very satisfactory results. The cervix may be depleted by glycerine tampons introduced not into, but up to it. Use the blunt curette gently, and follow it up by swabbing on Churchill's iodine, or iodine and carbolic acid for some distance up the cervix. But the douche, either hot water or medicated solution, should never be employed, as it is almost sure, sooner or later, to bring on a miscarriage.

In the other class of cases, where no results of an old inflammation can be discovered, the pains being neuralgic in character, in women who are anæmic or neurasthenic—weak and hypersensitive, where the nervous system is overdeveloped and over sensitive, and the muscular system weak, the treatment varies according to the conditions found. In many, simple anæmia is the cause, and the cure the administration of iron and other hæmatenics. But what I have found of most benefit in these cases is the helonias compound of Parke, Davis & Co.—a mixture of the fluid extracts of helonias, Mitchella repens, viburnum opulus and caulophyllum. I have had cases in which it acted like a charm. It has not only a distinctly sedative action on the uterus, but also a decidedly tonic effect. Under its administration the pains and soreness gradually disappeared, the uterus becoming strong and healthy, and the patient brighter and more cheerful.

I have noticed, also, that in women who have taken the helonias compound for some weeks or months before confinement, the labor has invariably been quick and easy, the uterine contractions being strong and regular, although previous labor had been tedious, agonizing, and exhausting, from severe but inefficient "pains." From what I have observed I believe it to be a specific uterine tonic and sedative, the latter possibly depending upon the former effect. I have been in the habit of administering it in from 30 m. to 40 m. doses four times daily. For these patients it has seemed to me much superior to liquor sedans (P.D.&Co.). I have used both in the same patient, and found the helonias compound answer every purpose much better.

When the abdominal distress comes from a chronic ovaritis, the pains are more severe, and the probability of relief less. Something may be done by ovarian sedatives; something by glycerine and belladonna tampons placed as near the inflamed ovary as possible; but the patient will have to depend largely on rest, plenty of fresh air, and suitable diet. There is a possibility of surgical interference being necessary.

When the pains come from the stretching of the abdominal walls —the muscles and fasciæ, I have invariably seen relief given by the vigorous application of a liniment of aconite, belladonna, opium and camphor, supplemented with heat. Possibly the hot-water bag answers the purpose best. And when, from the stretching, the skin is sore and neuralgic, I use a mixture of olive oil three parts, and F.E. opii camphorated one part, which, rubbed in night and morning, not only relieves the distress but allows the skin to stretch without tearing.

RESTLESSNESS.

Many women, while pregnant, suffer very much from restlessness and sleeplessness. They are hot and nervous, worried and fretful over the most trifling matters. If they are thus distressed during the night they cannot sleep, but toss from side to side hour after hour. Such a patient will get up during the night—possibly many times, and walk around the house or about the yard trying to get cool and quiet, or read by the hour in an effort to get her attention from herself. Her limbs and back ache and pain; her head feels sore and throbs painfully; her whole body is tired—yet she cannot sleep. She feels as though she would like to scream to relieve herself. She is depressed and anxious, a prey to foolish terrors. Any recent grief is accentuated; any old sorrow revived. The almost infinite possibilities of deformity in her child are considered in agon-

izing detail; it seems impossible to rid herself of such thoughts. If she could only get sleep, she feels, all would be well.

If these attacks occur during the day, they are less severe; for the daylight, and the company, and the many things happening to distract her attention from herself, serve to lessen her foolish fears, and induce a more normal train of thought.

In discussing the management of such cases I might say, first, that it is important that the physician know something of the domestic and social life of such a patient—her griefs, her joys, her domestic and social ties, her mentality. If the cause can be found in any of these and removed, a lot of drugging will be saved. While it is important that the physician study carefully the mentality and domestic life of every patient, it is specially so in these cases—he can treat them much more intelligently and efficiently.

Fresh air is of the greatest value. She should be out of doors, riding or walking, as much as possible. Her bedroom windows should be opened at night,—there is little danger of catching cold. With this should be combined active exercise. The poorer woman will get enough of both at her ordinary work, if it be housework and takes her in and out of doors constantly. The richer must depend on driving and walking, and these she should do constantly. Oxygen and exercise serve to keep the body free from all effete matters, the deleterious waste products of the system, and to ensure healthy growth and renewal of the tissues. They hasten both the elimination of the poisons, and the regeneration of the physical structures.

She should keep cool. The majority of pregnant women are too hot constantly—(the accentuated chemical action, in the body, being the cause)—and from this suffer greatly. She should wear loose and light clothing, sleep under light covers, with a hard pillow, in as large a room as possible, with open window. The food should be light, easily digested, and nutritious without being rich. Much meat, rich gravies and sauces, and pastry, should be avoided, especially in the evening.

I have seen great benefit derived from cool bathing, especially the cool sitz-bath. She should sit in the cool water from two to ten minutes every evening, gradually increasing the time, giving herself a vigorous rubbing when getting out of it. It seems to take the achy, tired feeling out of the back, hips and legs, better than anything else. Great relief is also afforded by frequently washing the face, neck and arms in cold water, and drinking cold drinks.

Usually these measures will leave her in such a cool and healthy state that she will have no trouble in going to sleep; but, if in spite

of these she should continue sleepless, I would advise sulfonal in 10gr. or 15gr. doses half an hour before bedtime. The powder should be dissolved in a little hot water, and given in half a cup of hot milk. Sulfonal, in these cases, has proved more efficient and certain in its action than any other hypnotic I have used. In small doses it never has any bad after effects, but in larger doses—e.g.—℥ss., is apt, next day, to leave the patient with a bad headache.

One of the main objects in all treatment in pregnancy is to ensure, if possible, an easy and a relatively speedy delivery. It is impossible that a woman should not suffer at all, but it is possible to so care for her that her labor will be robbed of all danger, and of much—indeed nearly all—of the pain. I am speaking now of ordinary patients, not of those with deformed pelves. And this can be done mainly by judicious dieting.

I am well aware that Dr. Gilman Thompson, in his "Practical Dietetics", teaches that nothing can be done in this direction, but my experience has been directly the opposite, and so distinctly that I now make it a point to give every patient careful and explicit directions with regard to her diet.

Some years ago I noticed that the women who ate heartily of bread, strong meats, and other strong foods, usually had painful and tedious labors, the child's head being hard and unmouldable, and the pelvic tissues and structures stiff and unyielding. On the contrary, those of the poorer class, who ate coarser food with little meat and plenty of fruits and relaxing vegetables, had much easier confinements. From this I concluded that diet had a good deal to do with the quality of the confinement. Now, I strongly advise my patients to abstain from the richer foods, bread, strong meats, spices, and much table salt, and to live, instead, on the lighter grains, fruits, and vegetables. Such a patient should eat rice, sago, and tapioca; green vegetables—as lettuce, spinach, asparagus, rhubarb, celery, cauliflower, etc.; other roots and vegetables—turnips, onions, parsnips, potatoes; fruits of all kinds—apples, cherries, plums, peaches, pears, and the various kinds of berries; and oatmeal porridge. She should drink weak tea and coffee: spring water is all the better for being boiled. Lemons, oranges and grapes should be eaten frequently. In this Province apples are cheap and plentiful, and are the very best thing a pregnant woman can eat. I remember the experience of one patient in particular. During her first pregnancy they were very poor, and all she had to eat a great part of the time were apples and potatoes. Her labor was very easy, though she was a primipara, and the child was large. During her next pregnancy they

were in better circumstances, and she ate heartily of strong foods. That labor was severe and tedious, though the child was smaller.

I would also advise each patient during the last eight weeks, at least, of her pregnancy, to take each day a dessert spoonful of whole flax-seed, washed well and boiled in half a pint of water. The seed and gelatinous liquor must both be drunk, and it is more palatable taken hot with a little lemon-juice stirred in. This not only has a laxative effect on the bowels—one of the most important things in pregnancy, but also a peculiar relaxing effect on all the pelvic tissues. It will undoubtedly render any labor much easier and more speedy. If the fruit diet is not sufficient to keep the bowels relaxed, I use pulv. glycyrr. co. or Wampole's Laxative Compound, and consider these the best laxatives for pregnancy.

As I have mentioned, with patients, in whose previous labors the uterine contractions were weak, seldom, and inefficient, I have used the helonias compound (P. D. & Co.'s) with splendid results. I have not used this latter in a sufficient number of cases to justify me in asserting that it will invariably have this result, but in all cases in which I have used it the results have been gratifying.

THE PATHOLOGY OF BALDNESS AND ITS RELATION TO SEBORRHŒA.

By Dr. Pepler.

IN considering the pathological changes found in baldness, let us look first to the hair. We find it stunted in its growth, being shorter, and atrophied, particularly towards the bulbar extremity, giving them a club shape, sometimes splitting and fibrillation of shaft, showing dilatations in places. The shaft breaks at these dilated points and leaves a stumpy hair with a brush-like extremity.

On examining a section of the skin from a patch of alopecia in an early stage, we see signs of a recent inflammation almost entirely confined to the corium and papillary layers. There is a perivascular infiltration of small round cells in circumscribed areas. The blood vessels and lymph channels are dilated and filled with a fibrous coagula. The rete and epithelium are unchanged—follicles generally empty or containing downy hairs. In some cases the papilla is lost, and the epidermal cells that go to form the hairs are packed up some distance in the follicles and devoid of pigment, and a small, undeveloped hair starting higher up. When this process has gone on some time, there is a great thickening of the walls of the vessels and much narrowing of lumen, with a general atrophy of all the tissues. As to what causes these pathological conditions, there is a great difference of opinion. There are those who tell us that it is tropho-neurotic, others that it is parasitic in origin.

There have been quite a number of cases recorded by Leloir and others where nervous exhaustion, blows on the head, worry, or sudden shock to the nervous system has caused a baldness in patches.

Max Joseph removed the spinal ganglia of the second cervical nerves in cats and observed falling out of the hair in patches in the region supplied by the nerve injured.

Very little was known of the parasitic origin until Gruby, in 1843, described a parasite which he found mixed with the epithelial cells and in the interior of the hairs, grouped in bundles, the hairs being

dilated in places. He called it Microsporon Audouini. This parasite he considered to be the cause of alopecia. Bazin took up the parasitc theory and demonstrated similar parasities. After this comes a long period of nearly forty years, in which the parasitic theory was disregarded. Tibrury Fox, in his work dated 1877, describes alopecia as due to a want of nerve force or tone, making no mention of organisms. Louis H. Duhring, in his "Diseases of the Skin," 1882, is most emphatic in his unbelief of any parasitic origin. He says alopecia is a non-parasitic disease and not contagious, but beyond doubt a functional nerve disturbance causing impaired nutrition.

Taylor & Morrow in their treatises on the skin give a more detailed account of the organism found in alopecia.

In a French dictionary, dated 1855, the word alopecia is defined by the words fox evil and scurf—scurf being derived from the Swedish skorpa, a crust—thus showing the connection between alopecia and a disease where crusts were formed. It was Hebra who first called attention to the close relationship between alopecia and seborrhœa, but he thought seborrhœa was an imperfect metamorphosis of the cells of sebaceous glands. Unna opposed this functional theory, and showed it to be an inflammatory process and a stage of a form of parasitic dermatitis, which he called eczema seborrhoicum. Such writers as Besnier, Doyon and Vidal concur in the opinion of Unna.

Ziemson in his handbook, 1885, opposes the Hebra theory that seborrhœa is a primary condition of alopecia. He considers seborrhœa based on an abnormal constitution or local nutrient condition, an anomaly of the hair formation—he says they are parallel effects of the same cause. In 1881, Thin had a paper read by Prof. Huxley, before the Royal Society, entitled "On Bacterium decalvans, an organism associated with the destruction of the hair in Alopecia Areata." Thin found round and elongated bodies, usually in pairs with the long axis of each forming a continuous line, sometimes three, end to end, all in one sheath, with the hair split into shreds. He thought the bacteria grew down between the inner root sheath and the shaft, penetrating the hair substance at the root, and as they multiplied they ascended in the substance of the hair. The splitting of the hair was attributed to the products of the growing organisms. Thin took a small piece of skin from a patch of alopecia areata, stained it in gentian violet, and on examination found the hair follicle dilated in its upper part above the entrance of the duct, and in this sac were many well-stained micro-organisms. They

were not present in the outer root sheath, nor in the surrounding connective tissue. The hair and stumps stained in gentian violet by Gram-Wiegert's method showed them split up and twisted, between the fragments the bacilli were found multiplying inside the hair and in the follicles, disorganizing the tissues thereabout. Hairs that are split up like this, by the growth of a bacillus, must die.

Robinson, in his bacteriological investigations in 1887, found the blood vessels and lymph channels packed with organisms in pairs, colonies and rows.

Dr. Elliott investigated 207 cases of alopecia—of these 179 were due to seborrhœa, and he noticed that when the local symptoms ceased so did the alopecia. After very careful and prolonged examinations of several cases he sums up as follows:

(1) Constitutional conditions cause a certain number of cases.

(2) The majority are attributed to local processes.

(3) All the local diseases are stages of eczema seborrhoicum of Unna.

(4) From the lowest to highest grade the pathology was degrees of inflammation extending sometimes through the cutis, and as a result hyperformation of horny epidermis.

(5) Sebaceous glands were unchanged.

(6) Source of the squamæ is the hyperplastic epidermis; not from the sebaceous glands.

In a further study of alopecia by Elliott and Merrill 344 cases were examined—of these 316 were proved to be of local origin. The bacteriological experiments with eczema seborrhoicum were very interesting. Forty-eight out of fifty cases showed germ life; two sterile. They divided the organisms into three varieties:

(1) Small diplococcus, single or in irregular groups. Each slightly oval, ærobic, non-liquefying, non-chromogenic, growing rapidly at 70° F.

(2) Small diplococcus, more oval, ærobic, non-liquefying chromogenic.

(3) Bacillus, with rounded ends, single or in pairs; short or long chains, ærobic and anærobic; motile, liquefying, non-chromogenic.

The probabilities that were deduced from their experiments were: that eczema seborrhoicum is caused by a specific germ or germs; that this is a diplococcus or diplococci; that the yellow stain often seen in the eruption is due to the chromogenic faculty of the germ; that the prevalence of the disease is due to the ability of the germ to grow in ordinary temperature of the varying seasons.

Dr. Elliott says of the report in the two cases that were sterile,

resorcin had been used. He cultivated the organisms found on various media, and obtained each in a state of pure culture. Inoculating with these pure cultures he got lesions characteristic of the disease in two, singly and together, and from these lesions he obtained pure cultures of the germs. Only seven out of twelve inoculations were successful. All successful inoculations on the scalp were accompanied by alopecia on the affected area. He obtained lesions on sternum from those on scalp, and what was interesting, he noticed that when No. 1 variety (non-chromogenic diplococcus) was inoculated he got dry, white, pityriasic scales. When No. 2 was used (chromogenic diplococcus) yellowish, greasy scales appeared. If Nos. 1 and 2 were used, greasy, crumbly, yellowish crusts formed, showing the disease to change according to the diplococcus used.

In February, 1897, a most interesting and exhaustive article appeared in the *Annals de l'Institute Pasteur* by Sabourard, on researches into the relations between seborrhœa, alopecia areata, and baldness. He devoted one whole year to this special subject, examining thirty-two sections of skin. He has shown us that the bacillus of cultures from alopecia areata is also present in the seborrhœic plugs, and that consequently seborrhœa and alopecia areata have a common micro-organism. He has shown us the exact position of the bacillus (viz., the upper part of the hair sac), and that the toxin of the bacillus of seborrhœic plugs has a distinct and exclusive action on the papillæ of cutaneous hairs, but the mechanism of which he does not explain. He began by showing that alopecia areata started from a central spot and spread along its circumference, and that the most pathologically active zone was at the outside of the patch. Here the hairs were broken and club-shaped, the microbes were found in the upper part of the hair sac, and on squeezing out the sebum, or, as he calls it, the "seborrhœic cocoon," from the follicles he found large numbers of different organisms in its substance. Then he separated out from these the bacillus of alopecia areata by means of a medium composed of peptone, glycerine, acetic acid water, and gelose, which destroyed all the organisms except the bacillus of alopecia areata, and a white coccus that was very persistent, and which, he thought, played some part in the cause of alopecia areata. (This white coccus seems to be identical with the white staphylococcus found by Dr. Welch in his bacteriological experiments on the skin, and which he called staphylococcus epidermidis albus. Dr. Welch regards it as being nearly a constant habitant of the skin, having obtained it in pure culture in thirty-three cases out of forty-four examined.)

Sabourard got rid of this white coccus by slow sterilization 65° C. for ten minutes, and also by using immunized gelose.

Towards proving this bacillus to be the cause of alopecia areata, Sabourard has produced baldness in rabbits by inoculating them with it (but he is not altogether satisfied with the results). Sabourard has shown the connection between seborrhœa and alopecia by first finding the bacillus of alopecia areata present in the seborrhœic plugs of the mouths of the hairs and sebaceous follicles in seborrhœa. Having a common origin, he came to the conclusion that the seborrhœa was the prelude of baldness. The pathological process is as follows: There is an afflux of wandering cells; the papilla atrophies and produces a hair devoid of pigment, which dies, and is expelled. Hairs once shed are never renewed. The sebum, laden with microbes, infects the follicles, one by one, till there is complete baldness. The microbes remain in the upper part of the follicle. How the papilla of the hair becomes involved remains to be proved, but Sabourard has gone a long way towards explaining this by inoculating the muscular tissues of a rabbit with a filtrate of a cultivation on liquid medium. This produced in three or four days shedding of fur, and in forty days general alopecia, thus showing that the toxin of the bacillus of seborrhœic plugs produces its action on the papillæ of the cutaneous hairs, even when inoculated into the heart of the system.

There is still left to prove that this bacillus under violent circumstances rapidly causes an alopecia areata, or more gradually brings about a baldness in ten or twenty years.

The bacillus when young is almost round, less than 1 micro-millimeter in length; the fully grown ones measure 1 micro-millimeter in length and 0.5 micro-millimeter in diameter. They stain well in gentian violet by Gram's method, or in borax-methylene blue solution, and faintly in hæmatoxylin; found often singly, sometimes in pairs, rarely in threes or fours. There seems to be a general concurrence of opinion as to the character of the bacillus found. The fact that this bacillus is not always seen in the same place does not in any way disprove the fact of its being the cause of the baldness.

That alopecia is contagious has been proved beyond a doubt. Hillier quotes forty-three cases of alopecia in a parish school, at the same time, traced to one child. M. Leon Cohn cites twenty cases in a French regiment during one month, and seventy-seven cases during the epidemic. These cases spread from the barber's brushes. I have seen three cases, in one house, at the same time, no doubt

due to using the same brush. The fact of these bacilli being found deep in the tissues would account for alopecia not being more contagious, and also for the difficulty of treatment.

Where baldness comes on suddenly, from apparent tropho-neurotic influence, it would be interesting to take sections of the skin and examine for the bacillus as a predisposing cause. In ten cases of premature baldness, where I have made examination, I have found a pathologically typical seborrhœa present, and am therefore inclined to think that the micro-organism that causes the seborrhœa can, by travelling in the lymph channels and blood-vessels, produce a gradual and general baldness.

I hope at a future meeting of this society to present specimens showing the pathological changes in alopecia and seborrhœa, and to also demonstrate the micro-organism present in both diseases.

THE RELATION OF CHRONIC ENDOMETRITIS TO EARLY RUPTURE OF THE MEMBRANES IN LABOR.

By Morley Currie, B.A., M.B.
Picton.

IN this article early rupture of the membranes as a result of abnormal development and abnormal adhesions of the membranes, arising from chronic endometritis, will first be discussed. An analysis of cases pointing to a connection between endometritis and early rupture of the membranes will then be given.

The nutrition and development of the membranes depends largely, in the first three months of fœtal life, upon the decidua reflexa, in the last six months upon the united decidua reflexa and decidua vera. A chronic endometritis means an abnormal decidua, and an abnormal decidua means mal-nutrition and faulty development of the membranes. It is evident, without going more minutely into this part of the subject, that a chronic endometritis is a cause of the development of membranes either more thin or more friable than those developed in a healthy uterus. Hence it is to be expected that forces, which would have no effect on membranes developed in a healthy uterus, will cause early rupture of membranes developed in a uterus which is the seat of a chronic endometritis.

Chronic endometritis is also a cause of early rupture of the membranes by reason of the adhesions which it forms between the membranes and the uterine walls. Cases of labor, otherwise normal, are occasionally encountered in which the os persistently refuses to dilate and in which an examination reveals the presence of strong adhesions between the membranes and that portion of the uterus surrounding the internal os. The breaking down of the adhesions is followed by normal dilatation of the os. In these cases a history of chronic endometritis is common. Here it is evident that the forces tending to dilate the os are engaged in producing a state of tension in the membranes covering the os. The rarity of these cases is to be explained by the early rupture of the membranes in most cases in which these adhesions occur.

The following analysis is based on the observation of twenty-six cases of early rupture of the membrane in full-term vertex presentations. Cases occurring with excessively strong pains, abnormal presentations and contracted pelves are excluded from this series. Hence the early rupture is not to be explained by excessive pressure on the membranes.

In nineteen of the cases a satisfactory history of chronic endometritis was obtained. Of the seven cases in which no history of endometritis was obtained, two were primiparæ.

In sixteen of the cases an ante-partum examination had been made. In twelve of these cases a note of "lacerated cervix" had been made on the ante-partum sheet. This note was never made unless the laceration was marked. These twelve cases all gave a history of endometritis.

In eight cases there was a history of previous treatment for uterine disease.

Questioning the multiparæ as to the early or late rupture of the membranes in other labors did not furnish any very satisfactory information, as might be expected. However, some seemed pretty sure that rupture of the membranes had occurred a very short time before delivery in labors antedating the endometritis, and some gave a history pointing to early rupture ever since the appearance of the endometritis.

PERSISTENT FORAMEN OVALE.*

By R. D. Rudolf, M.D. Edin.
Toronto.

MR. PRESIDENT AND GENTLEMEN,—The specimen which I would present to you is one of persistent foramen ovale and ductus arteriosus. The history of the case is briefly as follows: The patient was a male child, born normally at full term. At birth great cyanosis of the skin and mucous membranes was noticed by the nurse who attended the confinement. Some two hours later, when I, for the first time, saw the child, he was found to be a fairly grown, but poorly nourished infant, with an unusual amount of lanugo on the back and limbs. The face and extremities were very blue in color. The breathing was fairly rapid and labored on inspiration, the lower costal zone sucking in markedly, or to be more exact, failing to expand synchronously with the rest of the chest. No cause of obstruction could be detected in the upper air passages. Gradually the breathing improved, and the chest expanded more normally, and in a couple of days the child lost the constant cyanosis and became of almost, if not quite, normal color, but every few hours, without any apparent cause, attacks of cyanosis would appear, and these persisted until his death when 11 days old. Death was due to diarrhœa and asthenia, the child never assimilating his food properly, and the mother refusing to nurse him.

The physical signs scarcely come within the scope of these notes, but I may say that I detectd no abnormality on auscultation before birth, the fœtal heart sounds being clear. Nor after birth could I detect any bruits, but the rhythm was frequently irregular and the rate very high.

At the *post mortem* examination, some forty hours after death, Dr. Boyd kindly assisting me, *post mortem* rigidity was absent and decomposition commencing. The body was emaciated and the lips blue. The lungs appeared normal and were fully expanded, pieces, even of small size, floating lightly in water.

*Read before the Pathological Society of Toronto.

The heart was of about normal size as a whole, but the right side was abnormally developed at the expense of the left. It contained a little fluid blood. The right auricle was dilated to quite twice the size of the left, and its walls were somewhat thicker. On the auricular septum was seen a large foramen ovale, which occupied quite half of the septum. It easily admitted a lead pencil. The persistence of the foramen was evidently due to either a shrinking or a want of development of the flap, which normally should close it, and this flap only reached about half way across it. The right ventricle was as capacious as the left, and its walls were fully as thick. The pulmonary artery was large and nowhere stenosed, and after giving off a right and left branch to the lungs became slightly constricted, this constriction representing the ductus arteriosus and then continued on into, and as, the aorta. The aorta itself, on leaving the left ventricle, was small, and after giving off branches to the head and neck and upper extremities joined the continuation of the pulmonary artery, i.e., the ductus arteriosus, its orifice not being half the diameter of the vessel it joined. The ventricular septum was complete. In this heart the right ventricle, besides supplying blood to the lungs, must have pumped more blood into the aorta than was provided by the left ventricle. In fact, the fœtal condition of the ductus arteriosus had continued after birth.

Referring for a moment to the development of the heart, we know that early in fœtal life the auricles are represented by a single cavity, and that about the eighth week a septum begins to grow backwards from the anterior wall and finally reaches the posterior. The lower part, however, does not attain so far, and the hiatus thus left forms the foramen ovale. About the same time a fold starts from the posterior wall and grows forwards to the left of the other one, and by the sixth month has reached and passed the anterior margin of the foramen ovale, thus forming a flap which will freely permit of the passage of fluid from right to left, but will prevent any flow from left to right. This valve exists during the last three or four months of fœtal life, but towards the end of this period gradually becomes adherent to the margins of the foramen from behind forwards, and after birth, when the relative blood pressure in the two auricles alters, then the rest of the flap adheres. Thus the foramen ovale is closed and the fossa ovalis is formed. The complete closure, however, does not take place till a variable time after birth, and not uncommonly a slight patency remains even into adult life, without affecting the nutrition of the individual. In a bullock's heart, taken from an adult and very well nourished animal, I found an opening which would have admitted a lead pencil.

As regards the object of the foramen ovale: in the fœtus all the blood entering the right auricle from inferior vena cava, which includes all the blood coming from the placenta, passes through the foramen into the left auricle. Form the fact that the flow is from right to left, we know that the pressure in the right auricle is greater than in the left in fœtal life, but if from any cause during the later months this condition should be for the moment reversed, then the valve at the foramen would prevent any regurgitation. The comparatively pure blood thus supplied to the left auricle passes into the left ventricle and thence to the upper part of the body. Some blood must pass on in the aorta, and, mixing with the more or less impure flow coming from the right ventricle through the ductus arteriosus, passes to the rest of the body How distinct, however, the blood supply of the upper part of the body is from that of the lower is well shown by a case mentioned in Henoch's "Pædiatrics," in which, in a fully-grown and nourished child which was born dead, a complete septum was found in that part of the aorta lying between the left subclavian artery and the ductus arteriosus. In this case the blood for the head and neck and upper limbs was entirely pumped by the left ventricle, while the rest of the body was supplied by the right ventricle, and yet nutrition was perfect.

After birth the pressure in the left auricle becomes as great or greater than that in the right, and hence the valve of the foramen ovale closes, and sooner or later becomes adherent to the margins of the foramen. Any want of adhesion merely cannot allow of regurgitation from left to right, and hence when such occurs, it means that the valve either from want of development or from disease is incompetent.

A patent foramen ovule then, allowing of regurgitation, implies not merely a persistence of the adult fœtal condition, but the presence of an abnormality dating farther back in fœtal life, or else of disease causing the valve, *after* proper development, to shrink.

Symptoms. Frequently none are present even when a markedly incompetent foramen ovale exists, and this is true of all malformations of the heart. Henoch mentions a case where a child was admitted, suffering from pneumonia, with no cyanosis or abnormality of the heart to be detected. She died, and on *post mortem* examination (besides pneumonia) considerable malformations of the heart were found. The ventricles communicated with one another by a large aperture, the tricuspid valve was wanting and the mitral was inserted into an extremity of the right side of the heart.

But frequently in congenital heart affections there is more or

less cyanosis—as in the case before us—and the question is what is the cause of this. Wm. Hunter ascribed it to the admixture of venous and arterial bloods, and this view was endorsed by Gintrac, and is commonly taught to the present day, and the following is quoted from "Quain's Anatomy": "In certain instances there is such a failure of the union of the valve of the foramen ovale as to allow of the continued passage of venous blood, especially when the circulation is disturbed by any exertion, from the right to the left auricle as occurs in the malformation attending the morbus cæruleus. Morgagni, on the other hand in 1761, in describing the case of a girl who was suffering from cyanosis depending upon a patent foramen ovale, expressed the opinion that the blueness was probably due to venous congestion, and this view has been endorsed by Louis, and later by Peacock in "Quain's Dictionary of Medicine." The latter writes as follows: "It has been very fully shown that there is no just or constant relation between the intensity of the cyanosis and the amount of admixture, and, indeed, that very marked cyanosis may exist without any admixture, while on the other hand in all cases of marked cyanosis there are present causes capable of producing great venous congestion."

Of these two theories, (1) intermixture, (2) venous congestion, I would hold with the latter. Supposing for a moment that the blueness *were* due to admixture, then we must assume that a stream of blood is passing from right to left through the foramen ovale, and that therefore the blood pressure in the right auricle is greater that in the left. If this were the case then nearly all children would be more or less cyanosed during the first few days or weeks of independent existence. Further, even a very considerable admixture of venous blood with the arterial has been shown abundantly not to produce cyanosis. Henoch mentions a case where the left subclavian artery arose from the pulmonary artery and yet the left arm and finger tips showed no cyanosis.

Blueness of the mucous membrane suggests to the clinician's mind some insufficient action of the right side of the heart, either a weakness or a relative one in relation to the pressure it has to work against. We can understand readily how any of the ordinary congenital deformities may impede the action of this side of the organ. For example, persistence of the ductus arteriosus will raise the blood pressure in the pulmonary artery to somewhere near that in the aorta, and hence the right ventricle will have to work against an abnormal vis a fronte. Equally a stenosed pulmonary artery will increase the anterior resistance. In the same manner an imperfectly

guarded foramen ovale will permit of the higher pressure in the left auricle being transmitted to the right. All these causes will increase the work which the right side of the heart has to do, but as long as compensation here is fully maintained (or when it is *above*, as in the present case), then no cyanosis will occur. But when the least extra strain is thrown on the heart as by exertion, or if the compensation breaks down, then venous stasis will occur and cyanosis appear as one of its signs.

In the case presented to you the chief cause of the cyanosis, I think, was the patent ductus arteriosus. At first there was collapse (or a want of expansion of the bases of the lungs), and this would obstruct the pulmonary circulation, and, further, the struggle for breath threw still more strain on the right heart. After the lungs expanded fully and the breathing became easier, none of the extra work was taken from the right ventricle, and hence it attained compensation for the still extra work of pumping against the aortic pressure, and, therefore, the cyanosis almost disappeared.

The pressure in the right auricle being abnormally high, owing to the congested ventricle ahead, would probably cause a flow of blood from it through the foramen ovale, and hence some mixture of blood in the left side of the heart would ensue. But, as before seen, such an admixture is not of itself capable of producing cyanosis to any extent, and hence I believe that this condition in the present case was due to venous congestion.

I must apologize for having lengthened these notes by the introduction of many elementary and well-known facts in anatomy and physiology, only pleading as an extenuating circumstance that they were to some extent necessary as props for my conclusions.

EXPERIENCE OF TWO HUNDRED AND FORTY-EIGHT CASES OF ABDOMINAL SURGERY.*

By A. Lapthorn Smith, B.A., M.D., M.R.C.S. Eng.,

Fellow of the American Gynæcological Society; Professor of Clinical Gynæcology, Bishop's University; Gynæcologist to the Montreal Dispensary; Surgeon in Chief of the Samaritan Hospital, and Surgeon to the Western Hospital, Montreal.

FROM January, 1890, to November, 1897, he had opened the abdomen 248 times, with seventeen deaths, or a mortality of 6¾ per cent. for the whole eight years. In 1892 he had lost two out of twelve operations, or nearly 17 per cent.; but in 1895 he had lost two out of fifty-seven, or a mortality of only 3½ per cent. In 1896 his death rate had been low, losing only two out of sixty, or a little over 3 per cent. Ninety-three of these operations were performed at his private hospital, seventy-nine at the Samaritan, sixty-six at the Western, and the remainder at private houses and other hospitals. The death rate at the Samaritan for laparotomies was 5 per cent., and for the same at the Western 6½ per cent. Many of the operations were of the most serious nature, such as two of removal of large tumors of the kidney, without a death; eleven large ovarian tumors with two deaths; fourteen abdominal hysterectomies with four deaths; nine ventral and umbilical hernias without a death; sixty-two for double pus tubes with five deaths and ninety-nine ventrofixations with one death, which, however, had nothing to do with the ventrofixation as it occurred in a bad pus tube case. He referred to the charge sometimes brought against gynæcologists that they often operated unnecessarily. This certainly could not be said in his case, as he had complete notes of 4,300 cases, besides many others which he had seen in consultation with other doctors, and out of these he had only opened the abdomen 248 times. He felt sure that there were at least as many more who would have been greatly benefited by such an operation, and who were, on the contrary, dragging out a miserable existence while under palliative treatment. He had, at least, a hundred women

*Abstract of paper read before the Medico-Chirurgical Society of Montreal, Dec. 12, 1897.

under local treatment for diseased tubes who were having recurring attacks of pelvic peritonitis at intervals of from three months to two years, and most of these women would, he believed, eventually decide to have the cause of their sufferings removed. He found that this delay greatly increased the difficulties of the operation. If these tubo-ovarian abscesses were allowed to break into the rectum, bladder, or vagina, they became very dangerous to life. He had been called in consultation to a lady at Halifax in which this had occurred and the patient died from hectic fever, being too far gone for operation. He had also a great many cases of cirrhotic ovaries under his care, and these women, he believed, suffered much more than was generally supposed. Many of them begged him to remove their ovaries, but it was his custom to decline to do so until they had first been treated for one year by other means. He thought that he had been too conservative, as many of these sufferers had reproached him for keeping them in misery so long when the operation was followed by immediate relief. In some of the greatest sufferers from chronic ovaritis, the ovaries were so small that they could hardly be felt, and yet the day after their removal the patients claimed that they were entirely free from the pain from which they had suffered for years. In eight years he had only opened the abdomen thirty-six times for diseased ovaries and had lost only one of them. In about two dozen cases he had left the ovaries in after cutting out cysts and removing tubes. His experience, however, of conservative surgery of diseased ovaries was, on the whole, unsatisfactory; all the women, with two or three exceptions, reproached him for not having removed both ovaries completely. He thought that he would be more radical in future for the patient's and his own sake. It was a mistake to believe that women were never really well after ovaries had been removed; in the majority of cases the operation has completely restored them to health. Among the most interesting cases was one of obstruction of the bowels ten days after removal of very adherent tubes and ovaries. The abdomen was reopened nine hours after fœcal vomiting had begun, and the intestine was found kinked and adherent; it was detached and straightened out, and the patient recovered. He considered the management of tubal pregnancy was one of the most brilliant advances in abdominal surgery. He reported a group of seven cases, all of whom recovered. They had all been sufferers for years from tubal disease, and two of them had been urged to have their tubes removed several years previously. In four of the cases the diagnosis had been correctly made and the other three

were mistaken for pus tubes. In two of the cases a live child was floating about in the intestines, and in the third it was lying in the ruptured tube. In these three cases there were from one to three quarts of blood in the abdomen. The symptoms in these seven cases were not exactly the same as those described in the text-books. Most of these women had had their periods regularly, but in all the breasts were enlarged. He thought that when we have these three symptoms—enlarged breasts, irregular flow, and a painful rapidly enlarging mass in one side of the pelvis—we might suspect tubal pregnancy. If this is followed by an attack of syncope we might almost be sure of it, and should lose no time in operating, thereby saving the case. He thought that it was a disastrous policy to let them alone. Some of the nine cases of ventral and umbilical hernia were exceedingly difficult, it being necessary in several cases to leave at least one layer of the abdominal wall on the bowels which were adherent to the sac. They were nearly all closed with buried silk-worm gut sutures, which were left in. Although he had had a few cases of hernia following his early operations, during the past three or four years he had not had a case; this was owing, he thought, to leaving in the sutures for one month, a plan which he was the first to advocate. Since he has had the Trendelenburg posture he did not use drainage, either glass, rubber or gauze, because they were unnecessary. He took great care to have the bowels well prepared, so that they were rarely seen during the operation, and never handled. He was a firm believer in the value of flushing or washing every coil of intestine with salt solution; and he usually left from one quart to two gallons of it in the abdominal cavity to prevent adhesions and to satisfy thirst as well as to wash out the kidneys, as it was rapidly absorbed, strengthening the pulse and preventing the distressing aching all over the body. In emptying very large tumors he always left about two gallons of salt solotion to support the abdominal veins. He never used iodoform, because of its smell, its cost and danger of poisoning—several cases of fatal poisoning having been reported here and elsewhere. He used nothing for disinfecting except permanganate, oxalic and bichloride, consequently there was no hospital odor. In eight cases the vermiform appendix was firmly adherent to the right tube. He laid great stress on the method of removing the appendix even with the cæcum, and then closing the hole in the bowel as you would a bullet hole, with two rows of Lembert suture, instead of leaving a stump. He knew of several cases in the practice of other surgeons in which the leaving of a stump had caused a troublesome fistula. He hoped that this suggestion would be generally adopted by those who were doing this life-saving operation more often than he, and he offered it as a small contribution towards the improvement of the technique of the operation.

250 Bishop Street.

MASSAGE.

By Thomas J. R. Cook, Masseur,

Graduate West End Hospital, London, England.

NOTES ON ITS HISTORY AND APPLICATION TO DISEASE.

MASSAGE is a treatment which has been used for centuries, the Greeks and Romans used it in a primitive form after the bath, or after the struggles of the circus to dissipate the resulting contusions and extravasations and to restore pliability to the bruised and stiffened joints.

Among the Chinese written allusions will be found dating back to a period three thousand years before the Christian era, and their oral traditions are of still greater antiquity.

The Chinese manuscript Kong Fan, the date of which is 3,000 B.C., seems to have contained detailed accounts of these operations.

Much useful information respecting its early history will be found in the works of Hippocrates, Celsus, Galen, Oribase, Cælius Amelianus, and other writers, both ancient and modern.

Lomi, lomi of the Sandwich Islanders is described as a luxurious and healthful form of passive motion bestowed by the Hawaiians as a crowning act of gracious hospitality on the honored guest, or distinguished stranger.

During the early part of this century there is reason to believe that true massage was practised in France, but it was carried on secretly, and the professors of the art were but little inclined to impart their knowledge to casual enquirers.

It is to Dr. Metzger, of Amsterdam, that we are indebted for much of our knowledge of the modern phase of massage. He commenced studying the subject in 1853 and practised it constantly since 1861.

It is to the painstaking observation of Professor Von Mosengeil, that we are indebted for an accurate and scientific knowledge of the subject. His experiments on rabbits have served to place the whole question on a firm basis, which will not be readily shaken. In this country, unfortunately, very little is known about massage. The

massage given by most so-called masseurs and nurses is not massage at all. As much misconception still exists on the subject, it may be well to point out the differences between massage and the so-called massage given by charlatans. Massage is a scientific method of treating disease by systematic manipulation.

The individual muscle or groups of muscles are picked out or isolated, and stimulated to contraction mechanically. The movements must be made in the direction of the muscle fibres, and the tips of the fingers must be carried along in the interstitia, so as to promote the flow of lymph and increase tissue metamorphosis.

In addition an attempt should be made to stimulate mechanically the various motor points, in order that the muscles may be made to contract by a stimulus conveyed along their nerves.

The manipulations are carried out systematically in definite order and with a definite object. With the so-called massage (given by charlatans) these conditions which are essential to massage are considered to be of no importance, and the operator simply rubs or pummels the patient without any regard to the anatomical arrangement of the parts, and usually without any very definite object.

To perform massage a knowledge of anatomy is essential, whilst for rubbing and shampooing, physical strength and endurance with a certain *knack* are all that are necessary.

Shampooing is very useful in its way when applied in the Turkish bath, but it is not massage, and can never take the place of massage.

There is as much difference between massage and shampooing as there is between playing a difficult piece of music and striking the keys of the pianoforte at random.

I quite agree with Dr. Benjamin Lee, who, in speaking of the choice of a manipulator, says: "He or she (for both sexes may succeed admirably as masseurs or masseuses) must possess firstly, vigorous health; secondly, muscular strength; thirdly, a cheerful temperament, a pleasing face, and an acceptable manner; fourthly, a soft and pliant but strong hand; fifthly, a good education and a certain amount of refinement; sixthly, a knowledge of the leading facts of anatomy, such as the position of the various organs, the position and course of the larger arteries, veins, and nerves, and of such facts in physiology as the functions of the various organs, the course of the circulation, and the general processes of nutrition; seventhly, and lastly, an acquaintance with the effects produced by the different forms of manipulation, the order in which these different forms should be employed to produce certain general effects, the

injury which may be inflicted by employing them improperly or out of their proper order, and a practical dexterity in their application to be attained only by training under an experienced instructor." Hence it will be understood that we cannot take John from the stable, or Biddy from the wash-tub, and in one easy lesson convert either into a safe, reliable, or efficient manipulator.

Massage is an art, and as such must be acquired by study and patient practice under competent guidance.

The necessity for obtaining educated people to perform massage is as yet hardly recognized in this country. For those leading a sedentary life massage should be taken; it accelerates the circulation, exercises the muscles without the slightest fatigue, the patient feeling rested and soothed; it calms the "nervous system," and allays the excessive irritability and sense of tension from which so many business men are suffering to-day.

Many cases of nervous prostration could be avoided by taking the treatment.

The value of massage as a therapeutic agent extends over a wide area of disease, and the following points denote some of its special qualifications. It is useful:

To relieve pain in its wearing, wearying and agonizing forms.

To remove morbid matter and specific poisons from the blood, such as we know to be engendered by malaria, and such as give rise to gout, rheumatic gout, suppressed gout, etc.

To give tone to the nervous system, and to the heart and pulse, and to restore power, energy, efficiency, and capacity to disabled, exhausted, palsied, incompetent, and impotent parts.

To promote a healthy quality of blood and animal fluids.

To remove congestions, and insure functional activity of glands, skin, and mucous membrane.

To promote, maintain, and equalize the heat of the body.

To promote nutrition.

Dry massage is preferred for the following reasons:

You get better contraction of the muscles, and consequently a greater flow of lymph; electrical currents are more readily developed in the tissues; there is a greater elevation of temperature in the part; massage is much easier for the operator when oil is used but not as beneficial to the patient—a very objectional feature about the oil is the soiling of the clothes.

There is not the slightest fear of causing abrasion of the skin in dry massage if the operator knows his work. The rubber who rubbed a hole in his patient because there was no vaseline had mistaken his vocation.

I do not deny that inunctions are of value in suitable cases, but that is entirely another matter, and has nothing to do with massage.

Massage is highly recommended for neurasthenia, paralysis, rheumatism, lumbago, rheumatic gout, Bright's disease, liver troubles, constipation, insomnia, locomotor ataxia, hysteria, joint affections, knee troubles, fractures, sprains, strains, bad circulation, alcoholism, chloral tippling, etc., etc., etc.

Massage is a most valuable therapeutic agent, and will yield good results in many complaints other than those I have roughly indicated.

Massage is a valuable therapeutic agent in connection with medicine and electricity.

204 KING STREET WEST.

OBSTETRICS

IN CHARGE OF

ADAM H. WRIGHT, B.A., M.D. Tor.,

Professor of Obstetrics in the University of Toronto. Obstetrician to the Toronto General Hospital

AND

H. T. MACHELL, M.D.,

Surgeon St. John's Hospital and Victoria Hospital for Sick Children.

ASSISTED BY

H. CRAWFORD SCADDING, M.D.,

Physician to Victoria Hospital for Sick Children.

THE TREATMENT OF PUERPERAL ENDOMETRITIS BY THE CAROSSA METHOD.

Dr. Edward J. Ill comments as follows on a pamphlet which appeared early in the winter of 1896, entitled "Eine neue Methode der Behandlung des Kindbett-Fiebers durchschlagendster Wirkung," by K. Carossa.

He says that with all its fantastic theory, there appeared a grain of truth and practicability in it, which led him to its trial in cases of puerperal fever.

Although the method looks much like permanent irrigation, it is by no means such. The author of the method describes it thus:

A catheter is introduced into the uterus and this organ filled with absorbent gauze, in a loose but thorough fashion. At the external end of this catheter a funnel is attached. Through this funnel a 20 to 25 volume per cent. of alcohol solution is poured so as to flow into the gauze, with which the uterus is filled. The quantity to be used is from thirty to fifty c.cm. every hour, day and night.

Carossa's theory is that, owing to the high temperature, some of the alcohol will evaporate and bedew the whole lining membrane of the organ with an alcohol solution no longer containing 25 per cent. alcohol, but about 53 per cent., thus getting a very appreciable disinfecting quantity of the alcohol.

It is to the production of alcohol dew that Dr. Carossa mainly ascribes the excellent results of the method employed. Of course,

if such a thing took place there would be, by constant evaporation, a production of high per cent. alcohol, and constant return flow of diluted alcohol from the mucous membrane of the uterus.

The way Dr. Ill has used it n five cases s thus : He first cleanses the uterus in the usual way by curetage and irrigation, and then introduces into the uterus an ordinary, small-size, soft rubber stomach-tube with an open end and a funnel attachment. This tube he takes of the usual length as used for lavage of the stomach. Near the funnel end there should be a clamp screw. The uterus and vagina are loosely but completely filled with iodoform gauze, the patient lying on her back and the perineum retracted with the speculum.

He now pours a twenty-five per cent. solution of ninety-five per cent. alcohol in water to the amount of 60 c.cm. into the funnel, and, by slightly opening the clamp, allows the fluid to flow slowly, so that the smarting of the alcohol will not be felt by the patient too severely. As soon as the last part of the solution reaches the clamp, this should be closed down and the tube will remain filled so that a new instalment of the solution will not carry too large a quantity of air with it.

The addition of 60 c.cm. is done once in two hours. It will be easily understood how any attendant may carry out these simple instructions. The gauze is changed not oftener than once in three days, and may be left six days. This would depend somewhat upon the febrile condition of the patient. He has used the method five times with entire satisfaction.

Which is the Preferable Operative Method of Holding the Uterus in Position?

Herman E. Hayd, Buffalo, has great faith in ventral fixation for many conditions, but especially for prolapsus uteri et vaginæ, or procidentia uteri. He also employs it in cases of cœliotomy for tubal and ovarian disease where the uterus has a tendency to tip or fall backward. He sews the uterus to the abdominal wall with chromicized catgut, not even scarifying the peritoneal covering of the uterus. He holds the organ by thin sutures, simply taking in the peritoneum and connective tissue over it, except where the organ is very heavy, when he includes the rectal fascia and muscles.

C. C. Frederick, Buffalo, has discontinued ventrofixation in women liable to bear children. He prefers Alexander's operation, or some of its modifications, in women who have borne children.

Women who have never been pregnant are likely to have poorly developed round ligaments that are apt to tear away from the anchoring sutures. In these he opens the abdomen and shortens the round ligaments, preferably by Mann's method.

Charles A. T. Reed, Cincinnati, once thought ventrofixation had a practical field of application in cases of decensus uteri in the early degrees, but having operated—and operation resulting in failure—he has discarded it. He does not think it wise or rational practice to establish one pathological condition for the relief of another, particularly where the secondary pathological condition is more painful than the one for which we operate.

J. Henry Carstens, Detroit, believes many cases of retroversion can be easily remedied by pessaries—particularly those cases of retroversion occurring shortly after confinement.

Willis G. Macdonald, Albany, thinks ventrofixation for procidentia uteri is not a failure. It is *the* operation for certain cases, particularly in women beyond the child-bearing period.

Rufus B. Hall, Cincinnati, thinks there are many objections to ventrofixation. For prolapse, as long as the silver sutures remain in place the uterus will stay. Many cases get complications or post-operation sequelæ which are serious in character. He thinks the operation has had its day. On one or two occasions he had to operate to undo a ventrofixation, two of them being intestinal obstruction.

X. O. Werder, Pittsburg. There are cases of displaced uteri, small, without complications, without endometritis, which require no treatment, especially displaced uteri in single girls. There are cases in which endometritis is the main complication, and produces all the symptoms, and if it is treated and the displacement let alone, the patient can be invariably cured. Pessaries may be required in other cases—judgment is always required.

Albert Goldspohn, Chicago. Great relief is obtained in rectifying the retroversion. The round ligament is the most serviceable structure available for correcting the displacement.

James F. Baldwin, Columbus, believes ventrofixation has come to stay. Unfortunately, like many other operations, it had been taken up in the way of a fad by the gynæcological part of the profession, but in some cases it serves an excellent purpose. He had done the operation about forty times, and had no failures following it.

M. Rosenwasser, Cleveland, finds very little use for so many operative measures. When he finds a heavy uterus after confine-

ment he sees that it is reduced in size. He uses tampons early, and then adjusts a pessary. He does not do a ventrofixation more than half a dozen times a year.—Abstracted from *Am. Jour. Obs.*

The Value of Quinine as an Oxytoxic.

Dr. H. A. Hare, Philadelphia, has lately carried out a collective investigation among a considerable number of prominent obstetricians. From this investigation it is evident that quinine has no direct influence upon the uterus, but greatly increases its power of contraction by supporting the nervous system and also the general strength of the patient. It was shown that the drug is incapable of originating uterine contractions, and various explanations of the fact that abortions have occurred while quinine was administered were presented. It is apparently not as popular a remedy for uterine inertia as it was some years ago. Some observers reported that not only were a few cinchonised but that quinine distinctly increased the tendency to post partum hæmorrhage.

Dr. J. M. Baldy discarded it as an absolutely worthless drug in uterine inertia some years ago. It throws additional work on an already irritated stomach. He thinks it has been handed down as an heirloom from the past. He has yet to see the first case in which it has had any effect in increasing uterine pains after they have been established, or in originating pains.

Dr. Richard C. Norris does not believe that quinine has any direct oxytoxic influence. He thinks it is simply a general tonic to the system in the same way that a man who needs stimulants, and takes quinine, is better than if he had not taken it. He prefers kolers, and as far as his investigations have gone, they would indicate apparently definite and very prompt results. But of all drugs, he prefers the administration of some general stimulant, such as a glass of whiskey and water or sherry.

LARYNGOLOGY AND RHINOLOGY.

IN CHARGE OF

PRICE-BROWN, M.D.,

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

PATHOLOGICAL ANATOMY OF HYPERTROPHIED MUCOUS MEMBRANE.

Polyak, of Buda Pesth (*Archiv fur Laryngologie und Rhinologie*, Band vi., Heft 1), throws new light upon the pathological structure of nasal polypi and mucous membrane hypertrophies. The following are some of his conclusions:

"In hypertrophied nasal mucous membrane, including polypus and Hopmann's soft papilloma, homogeneous globules are found in the connective tissue, their number being proportionate to the cells. In most of these bodies the atrophied nucleus is recognizable, proving that the globules originate from cells undergoing degeneration. The retrograde changes begin by the cell swelling and the protoplasm becoming dark and flaky. Subsequently, the flakes increase in size, becoming rounded and shining. The cell, which is now considerably enlarged and spherical, assumes a raspberry-like appearance. The small globules then unite to form several larger flakes; the atrophied nucleus is usually still visible. Finally, perfectly homogeneous, round or oval formations result.

"In the epithelial layer, in large round cavities which have been produced by the pushing apart of the epithelial cells, the following structures occur: (*a*) Collections of white blood corpuscles with fragments of nuclei. (*b*) Homogeneous spherical structures, identical with those described as occurring in the connective tissue layer. (*c*) Scattered migratory cells, and abundant fatty granular cells, proving anew that the latter possess the power of movement.

"In the homogeneous structures, enclosed in the cavities of the epithelium, the atrophied nucleus is still frequently visible. Sometimes, however, when they are composed of several smaller globules, the nucleus appears in the middle as an irregularly compressed body. The author has not observed the initial stages of degeneration in the epithelia.

"Distinct transition forms are seen only in the round cells of the infiltration. The homogeneous structures appear whenever an infiltration of round cells is present; but they are always absent when the tissue is fibrous and poor in cells.

"The homogeneous bodies consist of a colloid substance—at least they react to stains, concentrated acids and alkalies, exactly as the colloid of the thyroid gland. At first they are made up probably of a more plastic material, so that larger flakes can arise by the closer packing and confluence of the smaller spheres.

"It may be assumed with a good deal of certainty, that the presence of cells in the hypertrophied nasal mucous membrane, which have undergone hyaline and colloid degeneration, is not accidental, but is closely connected with the want of tendency of these hypertrophies to undergo spontaneous resolution."

Contributions to Olfactometry.

Ludwika Goldsweig (*Archiv fur Laryng. und Rhinol.*, Band vi., Heft. 1), in investigating this subject, used an instrument resembling Zwaardemaker's olfactometer to arrive at a quantative estimate of the sense of smell. The substances used were iodoform, oil of sandalwood, and artificial musk, after mixing each with litharge and glycerine to form firm masses. The authoress proved that the power of olfaction was blunted during an attack of fever, just as hearing and vision were likewise diminished. This was particularly noticed during high febrile action. So also, febrile action being higher in the evening than the morning, the olfaction was at that time lower.

The effect of the application of cocain upon the sense of smell was also examined. A ten per cent. solution was applied, and then iodoform, musk, and sandalwood tried in turn, and the time noted when a change in perception occurred. It was found that in each case, though sometimes irregularly, the sense of smell was diminished.

Prolonged smelling of an odorous substance will also blunt and even, for the time being, destroy the sense of smell.

The purely qualitative condition of olfaction was also tested by comparing the power of smelling different substances, such as iodoform, menthol, cinnamon oil, etc., and as a result of the investigations, it was believed that olfactometry should be recommended as an aid to diagnosis.

Mucous Cysts of Maxillary Sinus.

Alexander (*Archiv fur Laryng. und Rhinol.*, Band vi., Heft 1), records six cases in which he diagnosed a cystic condition of the lining mucosa of the antrum, by making exploratory puncture and aspirating serous fluid. The author also reviews the history of eighteen other cases which have been published. The symptoms produced by the presence of cysts are not distinctive, inasmuch as the headache or frontal pressure which may be present, may equally be produced by other causes. Transillumination gives little if any assistance, as umbra beneath the eyelid is not likely to be marked, the fluid through which the light passes being transparent. Attention may, however, be called to the parts, by the recurrence of nasal polypi in these cases, and by the muco-purulent discharges which sometimes accompany them. In of one his cases the patient occasionally had a discharge of greenish yellow fluid from the right nostril; both inferior turbinateds were hypertrophied, and muco-pus was present in the middle meatus. Transillumination was the same on both sides. Two syringes of fluid were aspirated from the right antrum and nothing from the left. On opening the right antrum small cysts were found on the walls, and a tag of membrane, which proved to be the wall of a large cyst. The best method of treatment is to open the antrum and scrape the lining membrane, subsequently using antiseptic washes until healing takes place.

Empyema of Antrum in a Child.

D'Arcy Power (*Brit. Med. Jour.*, Sept. 1897) gives the history of a boy aged eight weeks. His face was bruised with forceps in delivery. Subsequently he wasted. At the age of four weeks, he had swelling and redness beneath the right eye, with difficulty in closing the mouth. The abcess was opened and pus continued to flow. When seen by the author, the sinus opened into the antrum, and pus was exuding from the alveolar margin. He made an opening into the floor of the antrum. A drachm of pus was discharged. The child died ten days later. Only a very few cases have been recorded in children so young.

The Use of X Rays in Diseases of Nose and Throat.

One of the most interesting papers that was read and discussed before the laryngological section of the Twelfth International Med-

ical Congress at Moscow, was the one upon the above subject by Dr. John MacIntyre of Glasgow. (*Jour. Laryngology*, November, 1897.)

After giving a full and minute description of the apparatus required, with all its various parts, he dwelt upon the pathological conditions in this special department, in which the X rays had been found of value. (1) Foreign bodies in antrum of Highmore, larnyx, mouth and œsophagus. (2) Injuries, such as fracture of hyoid bone, superior maxillaries, etc. (3) Tumors, malignant disease, etc. (4) Fluid in pleural cavity, deposit in apex of lung, etc. (5) Other conditions, such as ossification in cartilage of larynx, anatomical specimens of internal ear, inside cranium, mastoid, etc.

As indicating the large extent to which skiagraphy had already been applied, Dr. MacIntyre also exhibited photographs of foreign bodies in the region of the œsophagus, neck, etc.; malignant disease of the upper maxilla; photographs of the cartilages, tongue and pharynx, as seen through the neck; the thorax in the adult and youth; photographs of the same in early life, showing development; photographs of the heart (normal), hypertrophy of ventricles in chronic and acute diseases; anatomical specimens of internal ear, œsophagus, larynx, etc.

Treatment of Laryngeal Tuberculosis.

This was another important subject of discussion taken up by the Medical Congress at Moscow. It was devoted to the progress made since the meeting of the last International Congress, and was opened by Dr. Gleitsmann, of New York (*Journal of Laryngology*, October, 1897). He insisted on the importance of remembering that laryngeal tuberculosis is only, as Semon has well said, a local manifestation of a general infectious process. The percentage of cures is still very small. The treatment is under three headings—general medicinal, local medicinal, and surgical. He still believes that creosote is the most important medicine for internal treatment. But the carbonate compounds, such as creosotal, carbonate of guaiacol, and benzosal, are more effective and easier taken than the simple creosote. The serum-therapy in any of its forms he has found unsatisfactory.

Local applications by means of atomization, inhalation, and insufflation have made a good record, and will continue to be used.

Intratracheal injections of creosote, benzoinol, guaiacol, and menthol have been reported favorably upon; but lactic acid con-

tinues to maintain its place as the most widely used application for laryngeal tuberculosis.

Surgical treatment: He believes that amid the multitude of methods advised, curettement still holds the highest place. Its advancement during the last three years, both in Europe and America, has been steadily onwards. In using curettement the cases should be carefully selected. The removal of all the diseased tissue at one sitting can rarely be accomplished. Hajek operated twelve times on one case before obtaining a cure. Curettement is indicated in cases of primary laryngeal tuberculosis; in circumscribed ulceration and infiltration; in dense infiltration of the aryteniod region, of the posterior ends of the ventricular bands and tumors of the epiglottis; in the incipient stage of pulmonary disease, with little fever and no hectic symptoms, but in which the larynx is somewhat affected; and to relieve dysphagia, in some instances, even when advanced pulmonary disease co-exists.

Contra-indications are: (1) Advanced pulmonary disease with hectic; (2) disseminated tuberculosis of larynx; (3) extensive infiltrations, producing severe stenosis. In these, tracheotomy or laryngotomy must be considered.

Gleitsmann also referred to Chappelle's favorable reports of the result of sub-mucous injection of creosote in oil of wintergreen and castor oil, parts 1 to 8; and to Scheppegrill's cupric interstitial cataphoresis. Spherical electrodes of chemically pure copper are used, and the results reported are good. This treatment is simplified by the use of the autoscope.

Naso-Pharyngeal Polypi in Children.

Doyen (*Arch. Intern. de Laryng., Otol. et Rhinol.*, May and June, 1897), reports three cases in which he has removed readily bleeding naso-pharyngeal polypi from children. It is rare for these growths to form so early in life. To remove them, he has a specially devised raspatory. He first inserts a finger into the naso-pharnyx to make out the attachment, then seizes the polypi with forceps, and drawing it down, severs the connection with one or two strokes of the raspatory. Profuse hæmorrhage occurs, but quickly subsides on applying pressure.

Removal of Thyroid for Exophthalmic Goitre.

Doyen (*Acad. de Med.*, July, 1897), reports two well-marked cases, from whom had been removed almost the entire gland. The piece

left in each case was about the size of an almond. In one of the cases cure remained complete two and a half years later. In the other four months later. The first patient commenced to take sheep's thyroid some months after the operation, but palpitation, enervation, and exophthalmas returned. On discontinuing the thyroid the symptoms disappeared, and she remained well. The author asks why section of the sympathetic should be resorted to, when removal of part of an over-secreting gland is so clearly indicated?

Poucet, in the same issue (*Acad. de Med.*), does not answer the question, but reports nine female cases in which he had operated by dividing the cervical sympathetic nerve. Benefit accrued in all cases. In some the results were lasting, in others of shorter duration. Older patients did better than younger ones.

Fatal Hæmorrhage from the Removal of Adenoid Vegetations.

Schimiegelow (*Centralblatt fur Chirurgie*, August, 1897) gives the history of a case in the practice of a surgeon in which the operation was fatal. The surgeon had frequently operated successfully before. The patient was a boy æt. 12 years. There was nothing unusual in the case, except that the adenoids were very prominent; and that there were scrofulous glands in the neck. The operation was done without anæsthesia, and the ordinary Gottstein's curette was used. Without any warning, a sudden gush of arterial blood issued from mouth and nose. Tamponing was prompt, and intravenous saline injections were administered, but in a few minutes the boy was dead. On *post mortem* examination, the internal carotid artery was found to have been opened, just in front of its entrance into the carotid canal of the pars petrosa ossis temporis. The author supposes that swollen glands had pushed the vessel forward so that the pressure of the knife caused its rupture, for it was not cut. (*Laryngoscope.*)

ORTHOPÆDIC SURGERY.

IN CHARGE OF

CLARENCE L. STARR, M.B. Tor., M.D. Bel. Hosp. Coll.,
Assistant Demonstrator of Anatomy, University of Toronto.
Surgeon to Industrial Refuge.

A Case of Asymmetrical Development.

Dr. A. R. Shands, of Washington, D.C., has recorded a very interesting case of asymmetrical development in a boy twelve years of age.

When two years of age, it was noticed that the right side of the body seemed to be developing faster than the left, and the unequal growth has continued to the present time.

Inspection now reveals an enormous hypertrophy, of soft parts and bones, of the right side, including face, upper and lower extremities. Large purple markings are also seen showing greatly dilated capillaries.

An interesting feature of the case is the fact, that the left thumb measures three and one-half inches in circumference, while the right measures only three, and that one of the toes on the left foot is larger than the corresponding toe on the right foot.

The following measurements show the great differences in the two sides :

	Right.	Left.
Ankle	10	8
Calf	15	9
Thigh	18½	13
Forearm	8	7½
Arm	8	8
Ball of hand	8	7¼
Little finger	2¼	1½
Length of lower extremity	28½	24
Length of foot	9½	7½

The case is exceedingly interesting not only on account of its rarity, only three or four similar cases being reported, but also on account of its obscure etiology.

It seems to be distinct from acromegaly, which, as pointed out by Dr. Adler, always affects both sides, unless, perhaps, the fact that the left thumb and one toe of left foot show a commencement of the hypertrophy which may extend over the whole left side.

Elephautiasis is the only other condition which is at all similar, but this may be excluded from the fact that in the case reported the bones, as well as the soft parts, are included in the hypertrophic condition.

Mechanical Treatment of Ingrown Toe-Nail.

Dr. Henry Ling Taylor, of New York, in a paper on the above subject, defines the condition as an infected and irritated ulceration of the soft parts at the margin of the nail. The causes, he gives as improper shoes, a careless toilet of the nails, or accidental abrasions, which in most situations would prove trivial, but here become readily infected by germs, which thrive wonderfully in the genial warmth, moisture, and darkness of such an ideal incubator as the swathed foot.

Numerous operations are suggested, and that none of them are perfect the large mass of literature on the subject testifies.

Mechanical methods have been tried, such as raising the impinging edge of the nail by inserting bits of gauze or other substance beneath it, scraping the surface of the nail, or by pressing away the granulations by a small and carefully adjusted compress, all with varying degrees of success.

The treatment suggested in the paper is a modification of the method employed by Mr. H. T. Masters, of Whitechurch, England.

A flat strip of silver $\frac{1}{100}$ of an inch thick, one-eighth of an inch wide, and an inch long, is bent by means of small forceps into the shape of a fish-hook.

The hook will fit the toe better if shaped from a strip of metal slightly curved on the flat, and so bent that the shorter edge will be in front. In this case the hooks will be of two kinds, right and left.

The hook is inserted beneath the lateral edge of the nail in such a way as to include it in the barb of the hook, while the shank curves over the side of the toe and presses the granulations back from the nail.

It is advisable to first cleanse the surface of the toe with peroxide of hydrogen, and then apply a pledget of cotton soaked in a 4 per cent. solution of cocaine. A little gauze is applied to absorb discharge, and the hook held in place by a turn or two of gauze bandage.

GLUTEAL BURSITIS.

Dr. E. G. Brackett has reported several cases of gluteal bursitis (Transactions of Amer. Orthopædic Assoc'n, Vol. 9) which are interesting to note, on account of the fact that they give rise to symptoms which might readily be mistaken for hip-joint disease.

The clinical symptoms are: early and persistent limp, without remissions as in hip-joint disease; pain in back of thigh and knee; limitation of motion in extreme flexion; rotation outward, and flexion of the extended limb.

Treatment consists in opening the sac through an incision along the lower edge of gluteous maximus, thoroughly curetting and packing wound with gauze, allowing it to heal by granulation.

In two cases tubercular disease developed elsewhere within a year, and in two others the scrapings from the sac were found to be tuberculous in character.

Editorials.

THE VICTORIAN ORDER OF NURSES.

WE have had occasion to refer occasionally to the proposed establishment of a new order of nurses in Canada during this year. In our last issue we made the statement that 99 per cent. of the profession were opposed to the scheme. Under the circumstances then existing it will now generally be conceded that that statement was correct. We know of no one in the profession that is now prepared to support the scheme that was presented to us in the early part of this year.

We certainly should highly appreciate the fact that the promoters of the old scheme have been influenced by actions of our profession, as shown by resolutions of medical societies and in other ways, and have deleted so much that was objectionable to the members of our profession. It is rather unfortunate at the same time that they have taken no steps to inform the public that they have abandoned the old and adopted the new scheme.

They have given up the idea of allowing their nurses to act as obstetricians; they have dropped all references to the paucity of MacLures in Canada; they have laid down rules which are intended to protect our trained nurses; they have adopted what is called "district nursing." It is our duty as physicians to forget certain unpleasant allusions to our profession, and all the other things in the old scheme that were distasteful to us, and consider the new scheme (which bears the old name) on its merits.

The new provisional constitution was presented to a large meeting of the physicians of Toronto, held in St. George's Hall, December 1, when a majority were evidently opposed to the scheme. At a public meeting held in the Pavilion, December 4, under the chairmanship of His Excellency the Governor-General, Drs. Temple Grasett, Geikie, Thorburn, and Cameron, favored the scheme. As far as we can ascertain, very few of its opponents were present. One

of the physicians who endorsed the new constitution said that he had reliable information that the opposition recently shown at the meeting of medical men in St. George's Hall had since been largely melted away.

We have just received a communication from Dr. Playter (which we publish in this issue), and are unable to understand what he means by saying that the "nursing project was misunderstood and perhaps unwittingly misrepresented." What has the project which we were considering last June, as described in a certain pamphlet got to do with Dr. Worcester's plan of district nursing? Nothing, so far as we can discover. Why is it that certain supporters of the new scheme try to make it appear that a few months ago we were unable to understand English, and consequently required some instruction from a man in Massachusetts? Why is it that others try to make it appear that we are being dragooned into line by influences, which need not be discussed, but are generally understood? Why will they not allow us to accept the new scheme, if we choose, without any irritating references to the old project which the profession almost unanimously refused to accept?

DISTRICT NURSING.

We have no doubt that district nursing, when properly carried out, is an admirable thing for the sick poor (considering the word poor to include both paupers and others with limited means). Dr. Alfred Worcester, of Waltham, Massachusetts, came to Canada to discuss the subject, and explain his methods in his own country. He is a cultured and able man, and was exceedingly courteous towards all with whom he came in contact. He told us he embraced the opportunity to bring before his fellow members of the profession, and the public, the true light of the scheme which had been his life work. He was also influenced by his veneration for the attributes of true womanliness, the grace and queenly motherliness of her who occupied the British throne, and he stated that any movement that had for its patron such a distinguished and noble woman was something he felt proud to be identified with.

He explained how district nursing was a blessing to those who were unable to pay for trained nurses. The standard was kept up, as only competent nurses were accepted; and these were required to undergo further special training to more properly fit them for their special work. They did not come into competition with their professional sisters, as they were not allowed to attend cases where the families were able to employ trained nurses on the usual

terms; nor did they interfere with physicians, because they would work only under their supervision. They went from house to house, making from three to eight visits a day, and collected a small fee when they could—say about twenty-five cents an hour. Such fees were handed in to the local treasurer of the nursing fund.

As far as we could understand Dr. Worcester, such is a brief outline of the methods employed by him in Waltham and vicinity, and he expected that similar methods would be adopted by the officers of the Victorian Order. Without any reference to the new scheme for Canada, we are ready to heartily approve of district nursing under good governance, and to express an opinion that the doctor from Massachusetts is doing good work in his own state.

THE SITUATION IN TORONTO.

District nursing is not unknown to the citizens of Toronto; and we are not at all certain that it was necessary to bring a man from Massachusetts to Canada to explain it to us. In our last issue reference was made to the report of the work done in connection with our Nursing-at Home Mission of Toronto during the month of October, showing that 375 visits had been paid to 38 poor patients. This, however, gives us exceedingly little information respecting the amount of similar work that is being done by numerous organizations, such as various Orders of Deaconesses, Sisterhoods of different sects, and numerous national benevolent societies. It might be difficult for those who have paid special attention to the work of these various orders to form any adequate conception of the vast amount of good which has been accomplished in a very unostentatious way, and with a comparatively small amount of money.

In addition we have a goodly number of hospitals (perhaps too many), general and special—all doing good work for the sick poor—and all sadly crippled from want of funds. One of our most worthy charitable institutions, the Hospital for Sick Children, is struggling along with the tremendous incubus of a debt of $70,000 resting upon it.

Notwithstanding all that our good and charitable folk are doing, however, the fact remains that there is still a great deal of suffering in our city, which might be alleviated to some extent at least by conscientious and competent nurses. Any scheme that may be devised which is likely to work in that direction is worthy of very careful consideration. Although we are referring especially to Toronto, we believe that similar conditions exist in other cities and towns throughout the Dominion.

THE ATTITUDE OF THE GENERAL PROFESSION TOWARD THE NEW SCHEME.

We are not in a position to give a very positive or definite opinion as to the attitude of the general profession of Canada towards the new scheme. There has been no pronouncement of any organized body of medical men since the new provisional constitution was presented. We are certainly glad to be able to say that a great portion of bitterness has disappeared from the arguments of its opponents. The promoters, and especially Their Excellencies, the Earl and Countess of Aberdeen, have shown an earnest desire to respect the rights and opinions of the members of the medical profession, and such thoughtful consideration on their part is very highly appreciated. There is a general feeling in this country that no representatives of Her Majesty have ever put forth more strenuous efforts for the good of the people at large than the couple who now reign at Rideau Hall. If we cannot in all respects coincide with their views, we can at least honor them for their innumerable good deeds.

We regret exceedingly that we are unable to endorse the scheme which Her Excellency now has at heart, and which has so much that is really good in it. Some of our physicians object to the importation of nurses from Great Britain and the United States under any circumstances. Some think district nurses, who have first received a training of three years in a general hospital, and special training thereafter of six months, will know a little too much to be obedient nurses, and too little to be good doctors; and that they will do a good deal of work for a shilling an hour that ought to be done by physicians.

We do not care at the present time to consider in detail such arguments, but prefer to take a broader view of the subject, and consider the new scheme as a whole. We fear that the project is impracticable because it involves such a ponderous and expensive machinery to carry it out. Unless the fund subscribed were very large there would be a danger that it might all be spent before the sick poor were reached at all. It would be exceedingly difficult, if not practically impossible, to preserve anything like order and discipline in an immense organization extending from the Atlantic to the Pacific through a central executive board situated at Ottawa.

By a process of evolution, after many long years of earnest, patient work on the part of numerous bands of good men, good women and good children, we have a net-work of noble charities

throughout this country. The machinery, sometimes humble in its way, is in excellent running order; needing, at a great many points, only a little more oil in the shape of money. We believe that the good and charitably-disposed can do infinitely more in the interests of suffering humanity by giving money to the institutions at present existing in our midst than by supporting the new scheme which contains no proposition to do anything that is not now being done in we think a better and cheaper way.

NOTE.—Since the preparation of this article we have received information from various quarters, both in and out of Toronto, which leads us to conclude that a large majority of our physicians in Ontario have decided not to endorse the new scheme.

Correspondence.

VICTORIAN ORDER OF NURSES.

Editor CANADIAN PRACTITIONER (Toronto):

SIR,—When, at the Ontario Medical Association meeting in June, the subject of the "Victorian Order" for providing district nursing was discussed, I was in full sympathy with the resolution passed by the Association in respect to that subject. Why? Because the object of the nursing project, from having been misunderstood, and perhaps in a measure, unwittingly, misrepresented, I was under a false impression in respect to it.

Since Dr. Worcester, of Waltham, Mass., who has made a special study of the subject both in Europe and America, and has had much practical experience in district nursing amongst the poorer classes in Massachusetts, has been in Ottawa and explained the working of such a system and its most excellent results, my views have changed; as also, I particularly desire to state, have the views of a number of the medical practitioners of this city with whom I have had converse on the subject.

To be brief, three special advantages may be named as almost certain to result from the proposed nursing scheme if carried out, as follows:

First. It would be a decided advantage (rather than a disadvantage) to our already somewhat considerable army of regular nurses, by increasing, probably in a little time quadrupling, the demand for these "Ministering Angels."

The new order of nurses would go forth amongst the sick and distressed of the poorer classes, visit them, only, say, for an hour or so (never remaining for a day or a week), for a small sum paid to the Home, not to the nurse.

One of them would be sent out, say, to a woman at the commencement of labor, by the physician engaged. She would take the place at the bedside and in the room of the very incompetent neighbor or friend, or even mother, of the patient, now commonly in attendance. With a knowledge of the requirements of the case, with kindly sympathy, tender and clean hands, she would arrange

everything for the comfort of the patient, the prospective baby, and also for the coming physician; and in the best possible manner, very different from that in which they are now commonly arranged; sometimes providing from the Nurses' Home certain necessaries not obtainable in the patient's house.

If properly chosen or selected, as naturally adapted to this sort of semi-mission work, the district nurse would bring such a stream of sunshine (really and figuratively, with fresh air), such confidence, cheerfulness, hope and comfort, as would not only produce a favorable individual effect on the patient, but cause her family and neighbors to make great efforts on other occasions of the kind to employ a regular outside nurse for some days or a week or two, in order to have the benefit of a nurse's constant attendance, instead of only visits.

So in a case of pneumonia, of enteric fever, of acute rheumatism, pulmonary tuberculosis, or any other disease. The very natural results of this sort of nursing would be, and as appears to have been Dr. Worcester's experience in Waltham, to greatly increase the demand for the regular nurse, as now provided.

Second. The district nurse is to be sent out only under a physician, it appears in all cases, and she can not fail to prove a very great time and labor saver to the physician, in all cases in practice which she attends, especially in midwifery practice. This, Dr. Worcester states, is his experience. She will let the attending doctor know just when he is needed at the bedside, saving him hours of patient, or impatient, waiting; or "watching" calls or visits; she will enable him to leave the case sooner, and to know when other after calls would be most needed, by her morning visit to the patient and reporting the conditions.

Third. The district or visiting nurse would by her sympathetic presence and other personal characteristics, and her knowledge and acts, bring into the often unventilated, unclean, perhaps darkened, noisy, ill managed, unhappy house of the sick, pure air and light, cleanliness, quiet, comfort, etc., and so assist immensely to promote recovery and health, abbreviating the period of illness, preventing suffering, despair, death; in a word, to lessen the mortality by modifying and removing the cause of it, wherever she might be sent.

Trusting the above may enable the readers of THE PRACTITIONER to a better understanding and appreciation of the proposed "Victorian Order."

I am, etc.,

Ottawa, November 25, 1897. EDWARD PLAYTER.

Meetings of Medical Societies.

TORONTO PATHOLOGICAL SOCIETY.

MEETING October 30, 1897, Dr. H. B. Anderson in the chair. Members present: Drs. Wishart, McPhedran, Reeve, Wm. Oldright, Primrose, Cameron, J. J. Mackenzie, Amyot, Peters, Greig, Carveth, Hamilton, Bruce, Parsons, Bingham, Rudolph. Visitors: Drs. Hastings, Watson. Drs. Bingham and Rudolph were elected members.

FRESH SPECIMENS.

Dr. Wm. Oldright presented a sac removed last evening from the cavity of the uterus of a woman suffering from copious hæmorrhage and expulsive pains. The sac is about 1½ inches in diameter, the wall and contained fluid are translucent and transparent except in spots in the wall to which tissue presenting a placental appearance is attached. About two drachms of this tissue were removed separately from the sac, torn from it in removal. No embryo can be perceived on holding the sac between the eye and the light. The case was seen in consultation, and Dr. Oldright had failed to get a satisfactory history last night. He had this evening rung up the gentleman in whose practice the case had occurred, but he was out.

Dr. Wishart presented (1) the uveal body and choroid and foreign body removed. The patient from whom these were removed was a blacksmith. In striking the iron alternately with his mate the latter struck out of time and a piece of iron $\frac{7}{16}$ x $\frac{8}{16}$ x $\frac{8}{16}$ of an inch struck his eye, penetrating the cornea and sclera.

(2) A piece of stone somewhat larger than in No. 1 which had penetrated the cornea and sclera of a stone-worker's assistant.

Dr. Reeves presented an eyeball which had been torn open by a splinter of wood. There was a corneal wound of about 3½ lines; the iris was badly torn, and the lens dislocated. The projection field was seemingly normal, and the patient could see fingers. Four days later patient complained of sudden intense pain. A few minutes later examination showed free intraocular hæmorrhage,

blood-carrying lens, etc., with it, escaping from the wound and flowing between the lids. Two days later there were signs of panophthalmitis and enucleation was done. Section of the globe shows it to be practically filled with blood, save at the centre where the retina and choroid are found.

The case is one of interest from the occurrence of destructive secondary hæmorrhage four days after receipt of injury. The specimens are mounted after the Priestly-Smith method, in a solution of formaldehyde.

Dr. George A. Bingham showed a malignant adenoma of the rectum. See page 859.

Dr. Peters, in discussing Dr. Bingham's paper, said: The early age at which this disease appeared in this case (23 years) is interesting. It appears to me that malignant disease occurs in the rectum at an earlier period than in any other part of the body. I have seen a case in a patient 21 years of age, and cases at even an earlier age are reported.

The specimen shows a large papillomatous growth, showing, as the reader of the paper stated, that the malignant disease was engrafted upon an originally benign growth.

This specimen is lower in the rectum than is usual, as it is not usual to have the sphincter involved by malignant disease of the rectum. No doubt the original papilloma was close to the sphincter, thus determining the position of the cancer.

Dr. Anderson, in referring to the age at which malignant adenomata may occur, mentioned a case reported by W. A. Garrard of a cancer of the colon in a child under 11 years of age.

Carcinoma of rectum is comparatively common. Bland Sutton, in his "Tumors, Benign and Malignant," says that of 100 cases of cancer of the bowels, 75 occurred in rectum and 10 in sigmoid flexure.

Dr. Bingham, replying, said: In regard to the age at which this disease is met with, while it is a disease of middle life or later, yet not very unfrequently it is met with earlier in life. Of 87 cases recorded, 11 occurred between the ages of 20 and 30. To the surgeon the most interesting point is the fact that this disease may progress to almost any length without giving rise to any symptoms of sufficient importance to necessitate, in the opinion of the patient, the calling in of the surgeon. Therefore, when we meet any case with such indefinite symptoms as (1) diarrhœa alternating with constipation, (2) sero-saneous discharge, (3) indications of obstruction, we should carefully explore, and examine by microscope.

Dr. Rudolf read a paper on "Persistent Foramen Ovale." (See page 879 of this issue.)

Dr. Greig, in discussing Dr. Rudolf's paper, said: This specimen can scarcely be considered rare, because if more post-mortem examinations were made on children under two weeks of age, we would find it to be the common condition. The foramen ovale seldom closes before ten or twelve days after birth, and it very frequently remains open till the age of six months and longer.

Dr. Parsons: Last winter, at the Children's Hospital in London, Dr. Dickenson showed me three hearts from children who had died suddenly. The condition was that of imperfect development of the interventricular septum, the deficiency being at the upper part.

Dr. Rudolf, in reply: Holt considers patent-foramen ovale one of the common causes of sudden death in children. It is a fairly common condition. Recently he had seen a foramen ovale in a cow through which a pencil could be passed.

The notes of a case of miliary tuberculosis were given by Drs. Watson, Carveth, and Anderson.

Dr. Watson: The patient, a man, came under my observation on July 24th last, complaining of constipation and general abdominal pain. I was aware of the fact that he had had syphilis previously, and used much alcohol. He was given a purge, but was no better after two days, when seen again. The abdomen was found enlarged, containing fluid. In the following twenty-eight days he was tapped four times. There was a decided cachenia. The diagnosis lay between syphilis, tuberculosis, and cancer. Later tubercle bacilli were found in the sputum. The patient declined operation, and died on Oct. 19th.

Dr. Carveth: At the post mortem the abdomen was not found enlarged. There was a scar on the penis. In the abdomen everything was firmly matted together, liver, stomach, intestines, etc. On examination miliary tubercles were found in the liver and intestines but not in the kidneys.

The liver was cirrhotic and divided into sections by deep grooves ¼ of an inch deep at right angles to one another. No amyloid change was present, but numerous miliary tubercles. The kidneys were fairly healthy, the capsules a little adherent. The omentum and stomach were firmly adherent to the liver.

Thorax—both lungs adherent to the chest wall. They show numerous miliary tubercles. In the apex of the right lung were numerous abscess cavities. Before death the sputum contained many tubercle bacilli.

ORGANS FROM A CASE OF MILIARY TUBERCULOSIS.

Dr. Anderson spoke of the microscopic appearances presented.

The lungs showed large numbers of miliary tubercles in which few giant and epitheloid cells are found, the affected portions presenting rather small areæ of caseous necrosis, staining diffusely with eosin.

The liver presents a well marked cirrhosis, the new-formed connective tissue being irregularly distributed. The liver cells are atrophied or destroyed in many places. No tubercles were visible on gross examination, but the microscope shows many diffusely staining necrotic areæ with deeply staining particles (nuclear remains) in them and surrounded by a small round-celled area of polynuclear leucocytes and proliferated connective tissue cells. Very few tubercles with typical giant and epitheloid cells are to be found, even the smallest tubercles showing the necrotic conditions very marked. This is rather characteristic of the process of the bile ducts.

The spleen shows large numbers of the same necrotic foci, which on superficial examination do not look like tubercles.

The kidneys are somewhat cirrhotic but no necrotic foci were to be found.

It is interesting to note the frequency with which a terminal infection with the tubercle bacillus follows a cirrhosis of the liver, as in the present case. Osler calls attention to this point, quoting Pitt's statement that in 22½ per cent. of the fatal cases of cirrhosis of the liver examined in Guy's Hospital during a period of twelve years acute tuberculosis was found present.

The meeting then adjourned

The next meeting of the society was held Nov. 27, 1897, Dr. H. B. Anderson, president, in the chair.

Dr. W. H. Pepler was elected member.

Present: Drs. Anderson, Primrose, J. J. Mackenzie, Peters, Cameron, Wm. Oldright, King, Greig, Pepler, Amyot, Nevitt, Fotheringham, Hamilton, J. McCallum, Bruce, Rudolph, Parsons.

Visitors: Drs. Mullin, Perry, Hastings, Silverthorne.

In presenting a specimen removed from the body of a drowned woman, Dr Greig said the external appearances of the bodies of the drowned do not exhibit any constant condition. The condition of the internal organs is also very various, and in some cases it is impossible to prove that drowning was the cause of death. The time-honored signs of death by drowning are: Cutis anserina, retracted penis, fixing of the tongue behind the teeth, an upright position of the epi-

glottis, cinnabar red color of the mucous membrane of the trachea and large bronchi, the presence of froth in the trachea, the presence of water in the lungs and in the stomach, an elevated diaphragm, etc. The most constant of these conditions found are the presence of froth in the trachea, and of water in the lungs and in the stomach. It has been shown by different writers that all the other conditions may be found in bodies which have not been in the water. Even the sign of froth in the trachea has been found from other causes of death than drowning.

In the case in question, death had occurred shortly after a meal, and we could not say whether the stomach contained water or not.

Whether water is found in the lungs or not depends altogether on the length of time that the body remains in the water. If the body is found soon after death, the lungs will be found distended and feel like a sponge filled with water. If, however, the body lies in the water several days after death, the water may pass by a process of osmosis from the lungs to the pleural cavity. Therefore, in making post-mortems on these cases, the pleural cavity should be carefully examined before the blood vessels at the root of the lungs are cut.

The other specimen is a corpus luteum, which at present, however, is devoid of medico-legal interest.

Dr. E. E. King, discussing Dr. Greig's paper, objected to the theory of osmosis.

Dr. Oldright: Why does osmosis not occur from the stomach?

Dr. Greig, in reply: Osmosis is the recognized explanation of the condition. Shortly after death by drowning, the lung is found full of water, like a saturated sponge. It is supposed that later this passes by osmosis into the pleural cavity. There is also osmosis from the stomach at times.

Dr. Anderson: At the time of the autopsy there was much fluid in the lungs, which had a general distribution, and not alone in the dependent parts.

Dr. Pepler read a paper on the "Pathology of Baldness and its Relation to Seborrhœa." (See page 871.)

Dr. Fotheringham, discussing Dr. Pepler's paper, asked if any explanation were offered, allowing the microbic origin of the disease, of the constancy of the area affected, namely, the forehead and vertex, and not the lateral and lower occipital regions of the scalp. Also why age should have so constant an ætiological connection with alopecia.

Dr. Parsons: In a recent number of *The British Medical Journal*

Dr. Thin reports two further cases of alopecia areata, in which the findings were similar to those described by Prof. Huxley, for him, before the Royal Society. He refers at length to the thesis of Sabourard, and points out the similarity of the organisms found by him to those described by Sabourard. As to the position of the bald area, it was, in one case, on the thigh, involving the anterior and outer part. The writer is most emphatic with regard to the contagiousness of the condition. The alopecia of syphilis naturally arises in one's mind in this connection. Can there be a local cause in this case as in infective alopecia?

Dr. Edmund E. King related a case of alopecia areata developed on the outer aspect of each leg It was first noticed about ten or twelve years ago, when the size of each spot was about one inch by two. It has spread slowly but continuously, and now it has reached five by ten inches. No neuralgic pain had been noted, and in an examination made some years ago no parasite had been discovered.

Mr. J. J. Mackenzie called attention especially to the interesting specific action of the toxine upon the hair follicles. If this fact be confirmed, it would go a long way to confirming the etiological position of the bacillus of Sabourard.

Dr. James MacCallum: Ordinary baldness is scarcely identical in origin with alopecia areata, for in the latter the onset is usually after some neuralgia or other nervous or emotional disturbance, and is probably tropho-neurotic in origin rather than bacterial. Again, the patch of areata does not, I believe, show around it any colorless hairs, although there is a certain seeming resemblance in the atrophy of the structures of the scalp in both alopecia areata and ordinary baldness. Again, stimulation of the scalp by means of antiseptic agents, such as hydrarg perchlor, will cause the return of the hair in short order, while in ordinary baldness it is practically useless. I cannot believe that baldness is in every case due to these micro-organisms of Saborard, or to other organisms—these are one, but not the only cause of baldness. I have seen three cases of complete and entire baldness, there being not a single hair on the body—one due to syphilis, the other two having no sign or history of syphilis, congenital or acquired, and no history of contact or contagion.

Dr. Nevitt asked if seborrhœa always lead to baldness.

Dr. Carveth said: All cases are not parasitic, as a woman may become completely bald with each pregnancy. He asked why women are less often bald than men? Why are the English scientists and medical men less bald than our men at the same age?

Dr. Starr said that since Sabourard's paper was published he

had been thinking that it is possible that ordinary baldness resulting from seborrhœa is the result of the development of a toxine resulting from the growth of the bacillus of seborrhœa. Whether this is the same bacillus as that in alopecia areata, he was not yet prepared to say.

Another reason for thinking that a toxine is the cause of the baldness is the fact, that after fevers in which there are various toxines developed, baldness is very likely to occur. This, of course, is usually transient, probably because the toxine is soon eliminated; while in the baldness resulting from seborrhœa the cause is kept up for such a length of time that eventually the hair follicle is unable to recover itself.

Dr. Pepler replying: In answer to Dr. Fotheringham as to frequency of position, said the hairs on the most frequent position for baldness are less nourished. The hereditary influence was occasioned by the probable contagion, and by the susceptibility to the toxine being handed down. To Dr. Nevitt's question, Does seborrhœa always lead to alopecia? Yes, either to a greater or less extent according to the individual, and susceptibility to the person. In answer to Dr. Mackenzie's question, why he had difficulty in demonstrating the organism? said it was due to the examination not being made deep enough to get the bacillus.

HYPERTROPHY OF SINGLE KIDNEY AND EMBRYONIC KIDNEY.

Dr E. E. King: The specimen shown was found at an autopsy held on the body of a man, æt. 60, who fell dead, as a result of rupture of the heart. On careful enquiry from his family, no history of previous illness, particularly referring to the kidney, could be ascertained. He had endured considerable hardship, and was a free liver. Had taken an excess of alcohol for some years. The kidney on the right side was found to be very much enlarged, about twice and a half that of a normal kidney. The kidney substance showed gross hypertrophy, and consequently I have called it hypertrophy of a single kidney. On the left side was found this embryonic (?) kidney. The kidney substance is practically nil, while the pelvis and ureter are about normal in size; both ureters are complete and patent. There is not much to say on the case, excepting possibly that the man has lived freely, been frequently examined and passed for life insurance, and no suspicion of any kidney defect had been discovered.

Dr. King also presented a specimen from a tabetic, showing cystitis, pyelitis and pyonephrosis. The left ureter showed two strictures with

marked dilatation above each. The right ureter was much thickened. The bladder was much hypertrophied and pocketed.

Dr. Silverthorn in discussing Dr. King's paper, said, in the case of

CYSTITIS, PYELITIS AND PYONEPHROSIS IN THE PARALYTIC,

there was no stricture of the urethra and a prostate not very hypertrophic, still a very hypertrophic bladder and with ureters dilated, the one in the left very much thickened with three points of stricture in its length, the one in the right slightly dilated.

In paralytics we find often this cystitis, and consequently pyelitis.

Can this condition arise without catheterization?

How did the dilatation in bladder and urethra take place?

Probably due to pus, blood, etc., with or without spasm of the urethra.

Dr. Oldright, in discussing Dr. King's paper, asked if there were any small calcareous masses or semi-organized clots present at any time? He had seen distension of ureters caused in this way. Collections of pus discharged after the ureter had been freed from these small blocking masses. In one such case operation had been decided upon when this freeing suddenly took place.

Dr. Amyot suggested that the urine being ammoniacal acted as an irritant causing spasm of urethra and consequent retention of urine in bladder. Dilatation of it by pressure on anterior lip of ureter hindered flow of urine into bladder, and consequent dilatation of the lower part of the ureter where there is anatomically no obstruction, as in the specimen.

Dr. Primrose said the specimen presented as hypertrophied kidney is interesting because the existence of true hypertrophy of the kidney is denied by some pathologists. In cases in which one kidney is removed for disease the other enlarges, but the enlargement is due to dilatation of the tubules and glomeruli, and of the blood vessels and lymphatics. True hypertrophy would imply a uniform increase in number of all the tissue elements. This, it is held, does not occur in the kidney. In cases of the existence of a single kidney of congenital origin we have to deal with two kidneys fused into one with a single ureter. Dr. King's specimen consists of two kidneys and ureters, one of the kidneys being very much enlarged and the other diminutive in size.

Dr. King, in replying, said: I do not agree with Dr. Primrose's definition of hypertrophy. The organ is undoubtedly enlarged to the size mentioned. While I cannot say that there are more pyra-

mids and a greater number of tubular and malphegian bodies than in a smaller and normal kidney, I can say that the organ is in the condition that I have always accepted as hypertrophied. The condition is by no means unique, yet it is of sufficiently infrequent occurrence to present to the Society.

Dr. Wm. Oldright showed a specimen of

CARCINOMA OF THE BREAST AND NEIGHBORING GLANDS.

M. H., unmarried, aged 32. History not clear as to anything unusual before January,' 97, but in that month the patient received a blow on the left breast from a child who was playing with her. Since that time growth has been unusually rapid. Halsted's complete operation was performed on Nov. 18th. You will notice one very large gland, about one and a-half inches in diameter. On cutting open the breast after removal, a small cyst was found. Drops of straw colored fluid had exuded from the nipple on pressure before removal.

Dr. Peters: There is a cyst in the central portion of the tumor such as is often found in aderio-fibroma. The rapid growth might perhaps be accounted for by the fact that sarcomatous or carcinomatous growth has become implanted upon an adenomatous neoplasm. It appears to me a microscopic examination of the specimen is necessary to establish a diagnosis. The tumor appears to be somewhat distinct from the breast tissue, and does not show the infiltration usually found in carcinoma. The tumor is large for the time it has been growing, and on section shows no appearance of epithelium in a state of fatty degeneration, no central fibrosed mass such as is usually found in carcinoma, and the section does not show the cupping one would expect.

Dr. Primrose spoke of the nitric acid test for carcinoma, whereby very small masses were made to stand out clearly in contrast to the surrounding healthy tissue.

Dr. Oldright, in reply, was glad Dr. Peters had raised the point about the infrequency of cysts in carcinomatous masses. He (Dr. Oldright) had made the same remark in discussing the matter with Dr. Dwyer, but the latter had said that he had seen them.

There was slight retraction of the nipple and adhesion of skin to the growth. The nitric acid test referred to by Dr. Primrose would be of value in some cases, but he could not see its utility when one went below the entire extent of the pectoralis major, and clearing out all lymphatic glands and fatty tissues as applied in Halsted's complete operation.

Dr. Parsons, before showing a specimen of

ANEURISM OF THE AORTA,

asked Dr. Hastings to give the clinical history of the case. Dr. Hastings said he knew very little of the case, as he had not seen the patient before death. The history, as given to him, was to the effect that the patient —a woman of about 70 years—was admitted to one of the charitable institutions of the city about one year ago, and more for old age than any distinct disease. The morning of her death she seemed well, ate a good breakfast, and shortly after went to the closet. The sister heard a noise, and went in to find the patient dead. Later Dr. Hastings had seen a relative of the patient, who said she was always apparently well but for occasional violent fits of coughing.

Dr. Parsons: The specimen is one of aneurism of the descending part of the arch of the aorta, and is interesting from the fact that, despite its great size, it was practically latent. Gerhardt has recently drawn attention to the frequency of latent aneurisms of the aorta. In this situation aneurisms are usually devoid of pressure signs, the most common trouble being pain from erosion of the vertebræ. In this case erosion had not occurred. On opening the thorax the left pleural cavity was found full of blood, and a large firm mass found at the inner and posterior part, firmly adherent to both ribs and spine.

The lung, as you see, is almost completely collapsed and airless, the lower lobe being quite so.

The interior of the sac contains a large amount of laminated clot, but there is a free canal through it.

The case is interesting from its having been practically latent, and its fatal termination by rupture into the pleural cavity.

Dr. Rudolph asked if the cough was in any way peculiar.

Dr. Parsons: Not as far as could be ascertained.

From the position of the aneurism it was wonderfully free from pressure on any important structures as far as could be seen.

Dr. Fotheringham read a paper on

CARCINOMA OF THE STOMACH,

showing specimen and microscopic preparation.

B. R., male, æt. 67. Out-patient Toronto General Hospital for some weeks previous to his death.

Diagnosis of gastric cancer made in first consultation, upon the following evidence:

(1) Appearance, color, emaciation.

(2) Chronic indigestion.

(3) Violent occasional pain not due to indigestion of food, and always referred to below the heart and outwards to left anterior axillary line.

(4) Occasional vomiting, never bloody, he said, not always due to eating, not large quantity of foul or acid matter, but usually small quantity of food in much the same state as when swallowed and usually very soon after swallowing.

(5) Hard board-like state of epigastrium, abdominal muscles elsewhere free from reflex tetany.

(6) No tumor could be felt at any time.

(7) Stomach not dilated; pyloric orifice plainly open.

(8) No serious constipation.

Ante-mortem diagnosis. Gastric carcinoma, probably of cardiac end, and affecting cardiac orifice.

Post-mortem examination made a few hours after death: Large mass found toward pyloric end of stomach, involving whole circumference of stomach, greater and lesser curvatures alike, very symmetrical, to about two inches to left of pylorus, which was quite uninvolved. Part of transverse colon was adherent to greater curvature, and part of duodenum and head of pancreas behind. No secondary growth formed anywhere except that retroperitoneal glands were much enlarged both above and below growth, and matted the aorta and inferior vena cava rather firmly together. Inside of stomach a false pylorus was formed by the new growth, rigid, and admitting finger easily to second joint. About one inch to left of pylorus, and same distance from greater curvature, hanging down from the anterior wall there was a pedunculated mass about 1 inch long, ½ inch wide and ¼ inch thick, with thin fibrous pedicle On greater curvature and posterior surface, about two inches from the pylorus, was an elevated surface, black, ragged and excavated, with floor formed by adhesion to transverse colon, about 1¾ inches long, 1 inch wide, oval, greater diameter along greater curvature, and all round it the spreading thickened growth in the stomach-wall. The contents of the stomach were about eight ounces of characteristic coffee ground material.

Microscopic examination. Pedunculated growth spoken of above shows highly vascularized fibrous tissue, with normal mucous membrane covering it and no evidence of malignancy, but rather numerous area of small-cell infiltration.

Section from edge of carcinoma shows enormous preponderance of fibrous tissue, with much vascularity and but little new epithelial

growth. Here and there are clumps of cancer cells, and a good deal of inflammatory small cell infiltration. This is probably what they call in Vienna in post-mortem reports *Carcinoma ventriculi ad basim ulceris rotundi.* Some reasons for pronouncing it a cancer due to chronic gastric ulcer are, first, the great predominance of fibrous tissue, the scarcity of cancer cell elements, the fibrous papilloma, and situation of the new growth where chronic gastric ulcer is usually seen.

Ewald says: "Chronic gastric ulcers may be classed among the predisposing factors," and proceeds to detail cases of direct transformation of ulcer into cancer seen by Lebert Dittrich and others, and quotes Brinton for cases "in which lesion, macroscopically an ulcer with thickened edges, was accompanied by unquestionable metastases in liver and lungs." In discussing such a case, only 26 years old, Flatow, of Munich, says "there was evidently at first a cicatricial mass, and this facilitated an atypical prolification of epithelium. In about half the cases the pylorus is involved. In about 10 or 11 per cent. the cardia or lesser curvature, fundus least frequently, orifices favorite site, 70 to 75 per cent.

Dr. Peters reported a case of

INVAGINATED MECKEL'S DIVERTICULUM.

Baby U., age 6 weeks, under the care of Dr. A. R Gordon.

At the time of birth Dr. Gordon noticed a pinkish protruberance at the umbilical opening. He tied the cord above this, but noticed that there was some escape of gas at the time. The cord separated normally, but gas and fluid fæces continued to escape in small quantities from the opening. It was observed that the escaping fæcal matter had the same character as the motions.

The protuberance was clearly a pervious Meckel's diverticulum in a state of intussusception. It protruded about an inch and a half, being forced out somewhat during straining or crying, and receding slightly in the intervals. During the six weeks of life, the protrusion had increased considerably in size.

The case was operated upon, and made a good recovery. Meckels' diverticulum is an abnormality due to a failure to close of the proximal portion of the omphalo-mesenteric duct. In the process of development the umbilicus begins to be formed about the third or fourth week of fœtal life by a growth of the blastodermic membrane, at first from the anterior and posterior extremities of the body, and a little later from the sides. In the sixth week the duct normally becomes obliterated, the atrophied vesicle remaining out-

side the body, between the chorion and amnion. The vesicle, for a time after the obliteration of the duct, is connected by the resulting cord with a coil of intestine, which, together with the cæcum and part of the ascending colon, actually protrudes from the abdominal cavity and occupies the proximal portion of the umbilical cord. These coils are drawn within the umbilicus about the end of the sixth week of fœtal life, and the omphalo-mesenteric duct normally becomes obliterated as far as its connection with the intestinal wall, and soon disappears altogether. When that portion next the intestine persists, however, it is called Meckel's diverticulum. According to M. H. Richardson, this abnormality is found in two per cent. of subjects. It is usually situated within three feet of the ileo-cæcal valve, and has the same structure as the small intestine. It varies considerably in size and length, being very frequently of about the same diameter as the adjacent intestine, and usually not more than three or four inches in length.

Sometimes its end is connected by a fibrous cord with the umbilicus, and in such cases it may give rise to obstruction by entangling adjacent coils of intestine. In other cases the end of the obliterated cord is free, and frequently bulbous, and may also cause obstruction by ensnaring adjacent coils of intestine. According to Ziegler, the intestinal extremity sometimes closes, and the remaining portion develops into a cyst. Occasionally it remains patent between the intestine and umbilicus, as in the case reported above. In these cases, prolapse, similar to prolapse of the rectum, is liable to occur, as illustrated by this case. Mansel Moullin relates a case in which this prolapse was followed by a hernia of several loops of intestine, necessitating a free incision in the abdominal wall before reduction could be effected.

Dr. Pepler asked if there was any connection between this condition and hæmorrhage from the umbilicus.

Dr. Primrose said in his experience the diverticulum is usually of the same diameter as the intestine from which it arises. Sometimes within it small tumor masses are found, being fibrous in structure with a mucous covering.

Mr. Cameron thought it was possibly a failure to retract rather than an intussusception in Dr. Peters' case.

Dr. Peters said there was probably no connection between hæmorrhage and this condition. He further explained that it was a true intussusception.

The meeting then adjourned.

H. C. PARSONS, Recording Secretary.

Medical Items.

DOCTORS AND THE TEMPERANCE MOVEMENT.—Medical men, as a rule, are less liable to fanaticism than other people; hence it is not to be expected that total abstinence, which is just as much a craze as vegetarianism, should find many adherents in the ranks of the profession. They condemn the abuse of alcohol just as they condemn the abuse of tea or coffee, but they recognize that used in the right way, and in strictly regulated amount, it is harmless, and to some people helpful in health, and often invaluable in disease. There is no real inconsistency in a doctor preaching abstinence and himself taking such an amount of stimulant as he finds needful to enable him to do his work. The difference between precept and practice may, however, sometimes be illustrated in an amusing manner. Thus it is related of a late physician of the highest eminence, who was known to the public as an apostle of temperance, that a country doctor on one occasion brought him a leash of patients for consultation. The great man asked him to dinner, but first carried him off to a temperance meeting at which he was to preside. The country doctor heard Sir Anthony (this was not the physician's name, but 'twill serve) deliver an eloquent harangue in which the evils of alcohol in any form were depicted in the blackest colors. At dinner afterwards, the country practitioner was astonished and a little scandalized to see the orator, whose eloquent denunciation of alcohol had edified him a few hours before, drink freely of wine. When they had poured a few libations together the country doctor ventured to hint at the apparent discrepancy between his host's views on the alcohol question as expressed on the platform and as illustrated at the table. Sir Anthony shrugged his shoulders and delivered himself as follows: "My dear fellow, I have a very large correspondence, and the only time I can find to do it in is after dinner. I cannot do it at all unless I take some champagne; and when I have had champagne I don't care whether I do it or not!" This is the philosophy of the use of alcohol in a nutshell.—*The Practitioner.*

MR. CLEMENS' HABITS.—I can quit any of my nineteen injurious habits at any time, and without discomfort or inconvenience. I think that the Dr. Tanners and those others, who go forty days without eating,

do it by resolutely keeping out the desire to eat, in the beginning; and that after a few hours the desire is discouraged and comes no more.

Once I tried my scheme in a large medical way. I had been confined to my bed several days with lumbago. My case persistently refused to improve. Finally the doctor said to me: "My remedies have no fair chance. Consider what they have to fight besides the lumbago. You smoke extravagantly, don't you?"

"Yes."

"You take coffee immoderately?"

"Yes."

"And some tea?"

"Yes."

"You eat all kinds of things that are dissatisfied with each other's company?"

"Yes."

"You drink two hot Scotches regularly every night, I suppose?"

"Yes."

"Very well, there you see what I have to contend against. We can't make progress the way the matter stands. You must make a reduction in these things; you must cut down your consumption of them considerably for some days."

"I can't, doctor."

"Why can't you?"

"I lack the will-power. I can cut them off entirely, but I can't merely moderate them."

He said that that would answer, and said he would come around in twenty-four hours and begin work again. He was taken ill himself, and could not come; but I did not need him. I cut off all those things for two days and nights; in fact, I cut off all kinds of food, too, and all drinks except water, and at the end of the forty-eight hours the lumbago was discouraged and left me. I was a well man; so I gave fervent thanks, and immediately took to those delicacies again.

It seemed a valuable medical course, and I recommended it to a lady. She had run down and down and down, and had at last reached a point where medicines no longer had any helpful effect upon her. I said I knew I could put her upon her feet in a week. It brightened her up; it filled her with hope, and she said she would do everything I told her to do. So I said she must stop swearing and drinking, and smoking and eating for four days, and then she would be all right again. And it would have happened just so, I know it; but she said she could not stop swearing and smoking and drinking, because she had never done those things. So there it was. She had neglected her habits, and hadn't any. Now that they would have come good, there were none in stock. She had nothing to fall back on. She was a sinking vessel, with no freight in her to throw overboard and lighten the ship withal. Why, even one or two little bad habits could have saved her, but she was just a moral pauper. When she could have acquired them she was dis-

suaded by her parents, who were ignorant people, though reared in the best society, and it was too late to begin now. It seemed such a pity; but there was no help for it. These things ought to be attended to while a person is young, otherwise, when age and disease come, there is nothing effecutal to fight them with.—*Toronto Mail ana Empire.*

OBITUARY.

JOHN H. GARDINER, M.B.—In our last issue there appeared an obituary notice concerning Dr. Gardiner, of London, Ontario, in which it was stated that death was caused by septicæmia. We have since that time received further particulars as follows: On Friday he got a splinter into the knuckle of the right hand, but so small that it was not noticed or removed until some days after he had taken ill. The following Monday he was taken with a severe chill. Tuesday he went out but was compelled to return to bed from which he never rose. Thursday Dr. MacArthur, who saw him, found the right shoulder and up the neck much swollen and the pulse and temperature increased. It was believed to be rheumatism. Saturday the right shoulder and arm were somewhat easier but the left elbow had become involved. Sunday the right foot and leg were much swollen and inflamed. Monday the right foot and leg were black and blistered, and that afternoon he died. Pulse, during most of the time he was seen, ranged from 110 to 120; temperature never found higher than 103°. No other source of infection than this slight wound in the knuckle could be found, and at no time did it take on any particular inflammatory action.