

matic cells about the size of a pin's head situated in the extreme anterior part close to the tympanic cavity.

The pathological diagnosis was cerebral abscess and softening, mitral stenosis and the results of otitis media suppurativa in the right ear.

REMARKS.

I at first thought a mastoid operation was indicated, but failing to find distinct indications of mastoid disease in œdema of the meatus or external tissues and the sensitiveness of the bone not being confined to the mastoid, I kept the case under observation and found a steady improvement in the ear symptoms. In fact, the inflammation of the tympanum, which undoubtedly existed two weeks before, rapidly subsided, and no inflammation of the mastoid remained. The specimen shows merely the results of some previous inflammation in a permanent perforation of the drum-membrane and osteo-sclerosis. No mastoid operation could have accomplished anything.

The brain-abscess was a most favorable one for operation. At the time the diagnosis can be said to have been established by the symptoms of pressure it was decided, at the consultation, that the general condition precluded it; and the softening, in addition to the abscess, would seem to show that this decision was a wise one at that time. Whether an operation could have been successful earlier would depend upon whether the abscess was the primary lesion and the softening secondary or the reverse. The exact sequence of events is uncertain, and I should be glad to have opinions on the point whether the abscess occurred first and the softening was secondary and the beginning of a second abscess, or whether the abscess was a recent breaking down of a spot of chronic softening. The combination of a blow, chronic ear-disease, insanity and valvular disease of the heart was a singular and confusing one.

The results of the autopsy do not explain the cause of the abscess directly. I think we can say that the recent ear-disease was certainly not the cause, for there was not the slightest retention of pus and not a trace of recent otitis of any form nor involvement of the labyrinth. Whether the abscess could have been the result of some previous otitis, which in all probability caused the osteo-sclerosis, may be also a question, but the contents of the abscess, sero-purulent, not offensive, not inspissated and not encapsuled is wholly against the abscess being a chronic one. The valvular disease of the heart was not the cause for there were no vegetations to have caused thrombosis.

The only localizing symptom for an operation in this case was the localized pain which was referred exactly to the spot of the abscess, and the operation would have been a simple one. Localized pain, however, in otitic brain-abscess at least, is not to be relied upon for indicating the seat of the abscess. In the *Boston Medical and Surgical Journal* of May 31, 1888, I reported in full a case of otitic abscess of the cerebellum in which the pain was referred in the most direct way, and always to the parietal and temporal regions where the autopsy showed there was no trace of disease.

These two cases afford some interesting contrasts. In the present case there were many symptoms apparently calling for an opening of the mastoid, and only from watching the case could I finally decide that it

was uncalled for. The autopsy showed that I was right in that regard, but it also showed that if I had followed the simple guide of localized pain I could readily have opened the brain-abscess. The previous case gave no indications for opening the mastoid, and localized pain indicated the temporal region as the seat of the abscess, while the autopsy showed that the mastoid was the chief seat of the ear-disease, and if I had done the ordinary mastoid operation I should have reached the caries of the bone and could, and probably should, have immediately emptied the cerebellar abscess which communicated with the mastoid cavities by a large carious opening; while the localized pain would have carried me into the temporo-sphenoidal lobe where there was not a sign of disease.

This symptom of localized pain is so often spoken of as indicating the seat of the abscess that I beg to call attention to some recent statistics of Körner's.² He has analyzed one hundred cases of otitic brain-abscesses, and in speaking of pain says it is of little value for localization. Of twenty-one cases of cerebellar abscess in eight only was the pain referred to the occiput, while in three the pain was referred to the forehead; and in five cerebral abscesses the pain was referred entirely to the occiput.

OBSERVATIONS ON ANTEFLEXION OF THE UTERUS.¹

BY JOHN B. SWIFT, M.D.

It has been my fortune to meet with a number of cases of this affection, and I present for your consideration to-night my observations of them. They have presented a rather constant group of symptoms, and the description of one case will answer for all.

The patient presents herself complaining of dysmenorrhœa. She is generally of spare figure, and what is called a nervous disposition. We learn that the catamenial function was established at the regular time, was normal as to amount and duration, but has always been painful; the pain beginning before the flow appeared, of a cramp-like nature, and relieved when the flow became established. As time went on the pain became more severe, lasted longer, and between the periods there has been a constant leucorrhœal discharge of a thick consistency like the white of an egg.

The general health has suffered, dyspeptic symptoms with constipation are present, the appetite is poor, often capricious, and morning nausea quite frequent. There is pain in the back, and often also in the groins, especially on the left side. This pain is increased on standing or unusual exertion, and locomotion is often difficult. Frequently there are urinary disturbances, the patient being obliged to empty the bladder often. If she is married she is sterile.

This describes the so-called congenital cases, though my belief is that they are not truly congenital, but are due to non-development of the uterus caused by mal-nutrition at the time of puberty.

In the acquired cases, the uterus has developed well and the catamenial function has been normally established and performed for a more or less longer time, but through mal-nutrition or disease, the uterine tissues

¹ Read before the Boston Society for Medical Observation, February 2, 1891.

² *Archiv. für Ohrenheilkunde*, vol. xxix, p. 14.

have become softened, and the flexion takes place either suddenly on some unusual exertion or gradually by pressure.

On bi-manual examination, four conditions are found ;

(1) The cervix points in the normal axis but the body is bent forward ; anteflexion of the body.

(2) The body is in the normal axis with the cervix pointing in the axis of the vagina ; anteflexion of the neck.

(3) The cervix is in the axis of the vagina, and the body is bent forward almost parallel with it ; anteflexion of body and neck.

(4) Body and neck are both bent forward, but the whole organ is displaced backwards ; retroversion of an anteflexed uterus.

The flexion generally takes place at the junction of body and neck, and causes a diminution of the calibre of the canal, which may be demonstrated by the passage of the sound, thus presenting an obstacle to the free discharge of the menstrual blood, and so causing the dysmenorrhœa, as the obstruction must be overcome before the blood can get out. In other words, each menstrual period is like a labor ; the blood collects in the cavity of the uterus and is forced by the obstruction, the pain subsiding when the flow becomes established, because the canal has been dilated.

Menstruation being the natural way of relieving the pelvic congestion which is present at this time, and this being interfered with causes many of the other symptoms, the endometritis, feeling of weight in the pelvis, backache and pain in the ovarian regions, and this occurring every month gradually becomes chronic, and so the symptoms are constant. Being a constant irritation the general system suffers, and the patient becomes a confirmed invalid.

In the treatment of these cases, if we admit the cause to be the flexion, the indication is to remove that cause, that is, render the canal straight and patulous, and to do this we have a variety of methods to choose from.

If the displacement can be easily reduced it may be held in place by a pessary during treatment, which is directed toward restoring the normal tone to the parts.

In other cases it is found that although the flexion is easily reduced, the displacement immediately returns, and the pessary instead of correcting the flexion places the uterus in retroversion. These cases may be treated in one of three ways :

(1) By wearing a stem pessary (2) By what is known as gradual dilation, which is the passing of a series of graduated sounds from time to time which dilate the canal, and at the same time restore the uterus to its normal position ; or (3) by rapid dilatation which is performed, the patient being etherized, by passing an instrument through the internal os and stretching the canal as far as may seem necessary.

This also straightens the uterus. A glass or hard rubber stem is then inserted and kept in place for two or three weeks, the patient being confined to bed during this time. Hot douches with various applications to the canal should be combined with these methods to allay the congestion in the pelvis and correct the endometritis. Together with the local treatment should be prescribed general tonic treatment, embracing hygienic rules, exercise in the open air, correcting the diet, and avoiding, as far as possible, all worry and anxiety.

Some cases are met with in which there is no appar-

ent obstruction, the sound passing easily. Here the dysmenorrhœa is explained on the ground that the endometritis causes the mucous membrane to swell to such an extent at the menstrual period that the canal is occluded. In these cases mechanical treatment is not called for, but general treatment with the local applications will affect the desired result.

The cases which I have seen at the Boston Dispensary I have not included in my table, as it is impossible to keep them under observation long enough to establish any positive deductions. Leaving those out, I find that I have seen 107 cases, 51 married and 56 single. Of the married 40 were sterile. Seventy-one out of the 107 have submitted to treatment, 37 single and 34 married, with the following results. I have divided them into four classes according to the treatment employed, that is, gradual dilatation, rapid dilatation, pessary, and general treatment.

GRADUAL DILATATION.

| | Single. | Married. | Total. |
|---------------------------|---------|----------|--------|
| Number of cases | 9 | 8 | 17 |
| Cured | 2 | 2 | 4 |
| Relieved | 4 | 2 | 6 |
| No benefit | 3 | 4 | 7 |

RAPID DILATATION.

| | | | |
|---------------------------|---|----|----|
| Number of cases | 9 | 8 | 17 |
| Cured | 6 | 7 | 13 |
| Relieved | 1 | 1 | 2 |
| No benefit | 2 | .. | 2 |

PESSARY.

| | | | |
|---------------------------|----|---|----|
| Number of cases | 4 | 8 | 12 |
| Cured | 1 | 1 | 2 |
| Relieved | 3 | 6 | 9 |
| No benefit | .. | 1 | 1 |

GENERAL TREATMENT.

| | | | |
|---------------------------|----|----|----|
| Number of cases | 15 | 10 | 25 |
| Cured | 2 | .. | 2 |
| Relieved | 6 | 4 | 10 |
| No benefit | 7 | 6 | 13 |

It is thus seen that the best results have been obtained from rapid dilatation, and that is the method which I always advise, except in a few cases where the displacement can be corrected by a pessary.

A few words regarding the technique of this operation may be in place. It is by no means to be undertaken in a careless manner, but should be done with all antiseptic precautions and with the utmost gentleness. The patient being etherized, a thorough examination of the pelvis should be made to see that no contraindication exists. This being determined, she is placed in the Sims position, and a speculum being introduced into the vagina, the vagina and cervix are cleansed with a corrosive sublimate solution, 1-1000. The cervix is then held by a tenaculum, and the canal dilated by the graduated sounds until the dilator can be introduced. In introducing the sounds care must be exercised to see that they follow the canal and do not penetrate the uterine wall, an accident which has happened with fatal results. When the dilator, preferably an Ellinger's, can be introduced, the canal should be swabbed out with the corrosive solution, then the dilator is inserted with the bend forward, and the canal is dilated by gradually separating the blades. Too much force should not be used or the tissues will be torn, the object being to stretch the tissues rather than tear them. After holding the instrument in this position for a few minutes, the force should be relaxed, allowing the blades to come together, and then changing the position of the instrument, the stretching should be made in another direction. This alternate stretching should be continued until the canal is dilated sufficiently to allow the passage of a hard, straight

stem, either glass or hard rubber, which is then inserted and held in place by pledgets of cotton packed into the vagina or a pessary fitted with a cup which holds the stem in place. The stem remains in the uterine canal for two or three weeks the packing being changed every two or three days, and while the stem is worn the patient remains in bed. I have never seen any bad symptoms follow this operation except in one case, in which there was a great deal of pain referred to the lower part of the abdomen. There was no elevation of temperature, and the patient seemed perfectly well in every other way. The stem was allowed to remain, the pain being controlled by morphine, and the patient is now well of her uterine trouble, and her general health is very much improved.

RECENT PROGRESS IN SURGERY.

BY H. L. BURRELL, M.D. AND H. W. CUSHING, M.D.

(Continued from No. 17, page 409.)

ON CONICAL STUMP AFTER AMPUTATION IN CHILDREN WITH REFERENCE TO ITS PHYSIOLOGICAL CAUSES AND PROGNOSIS.

C. A. POWERS⁸³ records a number of instances of conicity of the stump occurring in children after amputation. In the cases which he has recorded the conicity hardly seems accidental and probably is coincident to the amputation. He says, "Certainly none can doubt that the long bones increase in length more by addition to their ends than by interstitial deposit. Take the humerus for example; there the chief point of growth is at the upper end where the epiphyseal centre is first to appear and the last to become fused to the shaft. Here we have the constant ossification of the layers of cartilage which intervene between the epiphysis and the shaft. These layers of cartilage constantly grow on the one surface while they ossify on the other."

He submits the following: "Given an amputation through the humerus of a child at a point not far below this epiphyseal line, the ossification of the cartilage is not interfered with and increases the length of fragments far out of proportion to the relation, in length, which the fragment itself bears to the original length of bone. The growth in the soft parts is commensurate only with their length, and less in extent than normal because of atrophy and retraction. Thus we may conceive that this constant osseous deposit in the epiphyseal cartilage tends to press the end of the bone into and through the soft parts."

He submits the following propositions:

"(1) Amputation through the arm or leg in children may be followed by a conical condition of the stump, and this sequel is a probability rather than an improbability.

"(2) This conicity may be physiological and independent of inflammation or retraction of the soft parts, or the osteophytic deposit at the end of the bone.

"(3) The younger the child and the nearer the seat of amputation to the upper epiphysis of the limb, the greater the probability of early conicity. These factors should be considered when making prognosis.

"(4) The weight of extant authority favors flaps of excessive length, but this measure may not prevent development of the conical condition.

⁸³ New York Medical Journal, June 7, 1890, p. 641.

"(5) When the conical condition is present, the only suitable treatment consists in resection of a sufficient portion of the bone.

"(6) Successive reamputations may be required.

"(7) The above conditions may apply, but with very much less of force, to amputations through the forearm or thigh."

THE TREATMENT OF VESICAL CALCULUS IN MALE CHILDREN.

After a careful consideration of vesical calculus in male children, Dr. J. William White⁸⁴ believes the following conclusions in regard to choice of operation justifiable:

(1) In every case of calculus in male children, litholapaxy, on account of ease of performance, low mortality, speedy recovery, and absence of danger of emasculation, should be the operation of predilection, division of the meatus being freely resorted to if that portion of the urethra offers an obstacle to the introduction of instruments.

(2) The lithotrite and evacuating-tube should be of a size which can be inserted into the bladder without much effort or over-distention, and great gentleness should be observed in passing these instruments.

(3) They should be withdrawn and reintroduced as seldom as possible, the stone being finely pulverized before the lithotrite is taken out at all. In seeking for or attempting to seize the stone, care should be taken to avoid such wide separation of the blades as will bring the male blade in frequent contact with the vesical neck. The crushing should invariably be done only after rotating the blades into the centre of the bladder. Every particle of the calculus dust should be evacuated.

(4) Rest in bed, milk diet, and sterilization of the urine by boric acid or salol given internally both before and after the operation are valuable adjuvants. During the operation every antiseptic precaution should be observed.

(5) The exceptional cases of calculi, which are both large and hard, may be best treated by suprapubic lithotomy, but neither unusual size nor a moderate degree of density should of itself alone be thought positively to contraindicate litholapaxy.

(6) Perineal lithotomy has now a very limited field, and should be employed chiefly in those cases of stones thought to be of small or medium size in which no lithotrite, however small, can be introduced with safety.

GLUCK'S METHOD OF INSERTING IVORY JOINTS AS A SUBSTITUTE FOR EXCISED ONES.⁸⁵

One of the most interesting methods shown at the last Berlin Congress was that by Gluck for inserting ivory joints as a substitute for excised ones. Much adverse criticism was elicited and much scepticism was the result. In one instance, however, a patient was shown with a joint capable of a motion of forty-five degrees, but the ultimate fate of the joints has not yet been determined. In the *British Medical Journal*, No. 1,550, there appears an account of Gluck's cases and the possibilities are summed up as follows:

(1) They may possibly remain there, imbedded in the tissues and, like pieces of metal, bullets, etc., give

⁸⁴ Medical News, May 17, 1890.

⁸⁵ Arch. f. Klin. Chir., 1890, xii, 187; also, Annals of Surgery, 1890, vol. xii, p. 266.