left costal margin. In the course of four or five minutes voluntary respiration was again established, the pupils contracted, and consciousness was regained. No residual effects were noted.

The examination of the electro-cardiogram during this period showed the normal cardiogram to be replaced by one in which the rate of the heart was reduced to one-half. No changes were to be seen in the P.Q.R. complex at the time of this change in the frequency. Each wave possessed its normal order, time relationship, and character. After this bradycardia had lasted for ten seconds it was replaced by a series of small waves, which were suggestive of vibration of the string. There is no evidence in the cardiogram that the ventricle was beating during this period. At the end of the curve, when the subject was removed from the electrodes, these small fibrillary waves were less frequent but of greater amplitude. There was as yet no evidence of the R wave of ventricular contraction. The tracing was that of a prolonged sino-auricular block.

COMMENT.

From these few observations it is not possible to reach any conclusions as to the effect of calcium upon the normal electro-cardiogram.

Whether the effects noted in the second experiment are evidences of vagal stimulation or a direct action upon the genetic nervous system of the heart independently of any extrinsic nervous supply it is impossible to state. The nature of the results obtained rendered it inadvisable to repeat the experiment following atropinization.

The disturbances of conduction noted are somewhat in accordance with those obtained by Walters and Bowler in the dog. I simply desire to call attention to the occurrence of cardiac disturbances of conduction as a result of intravenous calcium administration in a dosage that has been commonly used.

SUMMARY.

The intravenous use of 4 c.cm. of a 10 per cent. solution of calcium chloride is dangerous. The electro-cardiogram shows what we believe to be a sino-auricular heart-block.

To my chief, Professor J. W. Crane, and to Drs. Waud, Gordon, Kitchen, and Vine, I wish to acknowledge my gratitude for their help in the performance of this study.

REFERENCES.

- Brown, A., MacLachlan, I. F., and Simpson, R.: Effect of Intravenous Injections of Calcium in Tetany and the Influence of Cod-liver Oil and Phosphorus in the Retention of Calcium in the Blood. *Amer. Journ. Dis. Child.*, 19, 413, 1920.
Cushny, A. R.: *A Textbook of Pharmacology and Therapeutics*, Phila., eighth edition, 1924, pp. 554, 555, 567.
Grove, W. R., and Vines, H. W. C.: Control of Haemorrhage by Intramuscular Injection of Calcium Chloride. *British Medical Journal*, 1921, ii, 40.
Neumann, W.: Calcium Chloride for Haemorrhages. *Munch. med. Woch.*, 67, 1290, 1920.
Popescu-Inotesti, C.: Action of Calcium Ion on Vegetative System in Man. *C. R. Soc. de Biologie*, 93, 752, 1925.
Seelig, M. G.: Localized Gangrene following Hypodermic Administration of Calcium Chloride. *Journ. Amer. Med. Assoc.*, 84, 1415, 1925.
Singer, G.: Calcium in Heart Therapy. *Wien. klin. Woch.*, 34, 247, 1921.
Walters, W.: Pre-operative Preparation of Patients with Obstructive Jaundice. *Surg., Gynecol. and Obstet.*, 33, 651, 1921.
Walters, W., and Bowler, J. P.: *Ibid.*, 33, 200, 1924.

A MIXED TUMOUR OF THE NASOPHARYNX.

BY

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With a Pathological Report by

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It is recorded by Sir StClair Thomson that "neither simple nor malignant neoplasms are found, except rarely, in the post-nasal space. The innocent growths are so uncommon that every new formation in this region should be looked on with suspicion." On the other hand, Sir William Milligan, opening a discussion on nasopharyngeal growths at the Laryngological and Otological Sections of the Royal Society of Medicine, stated that growths in the post-nasal space are not uncommon, but that their presence is frequently overlooked; and further, that the principal

varieties of new growths in this region are nasopharyngeal fibromata, angiomas, endotheliomas, carcinomas, and chondrosarcomata.

The report of the following case is therefore considered of interest because of the lack of references to similar cases in the English textbooks.

A boy, aged 7 years, was sent to St. Helens Hospital for the removal of adenoids; he suffered from frequent colds and nasal obstruction. On examination by anterior rhinoscopy nothing abnormal was found; posterior rhinoscopy was difficult, but the lower pole of a smooth greyish-pink tumour was seen partially filling the left nasopharynx; this mass did not bulge the soft palate of that side. By digital examination a firm sessile tumour, about the size of a small nut, was palpable, occupying the left side of the post-nasal space. The tumour did not bleed during examination, and appeared to spring from the lateral wall of the nasopharynx, between the left choana and the Eustachian orifice. There was no history of epistaxis or pain, and no evidence of involvement of the middle ear or of the neighbouring lymph glands.

A diagnosis of nasopharyngeal fibroma was made, and subsequently the tumour was removed with post-nasal forceps without undue haemorrhage. The child was examined three months later, when the nasopharynx appeared clear.

Professor Beattie kindly examined the specimen and made the following report:

This tissue consists of an area of irregular cartilage, an area of adenomatous tissue, the acini being lined by a high columnar epithelium (similar to the lining in the gland spaces of the ovary), and a cellular area mainly with round mononuclear cells. The section suggests a tumour of congenital origin from some abnormal structure.

Brown Kelly has classified a group of tumours occurring in the pharynx as follows: (1) teratomata, (2) teratoids, and (3) mixed tumours—"arising from cells at the junction of two types of epithelium. Some may assume mildly malignant characters." The tumour reported above belongs to the last class, and is more correctly called a blasto-teratoma; it is similar to tumours arising in the parotid, submaxillary region, lip, palate, orbit, and, as recently described, in the molar glands.

REFERENCES.

- Sir StClair Thomson: *Diseases of the Nose and Throat*, third edition, 1926.
Proc. Roy. Soc. Med., Laryngological and Otological Sections, 1923-24, xvi.
Journ. of Laryngol., xxxiii, 1918, No. 3.
Lionel Fildes: *Lancet*, September 24th, 1927.

A METHOD OF TREATING FRACTURES OF THE CLAVICLE WITH DISPLACEMENT.

BY

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PROBABLY the most commonly used method of treating simple fractures of the clavicle with displacement is either that originally described by Sayre, or the bandage devised by Douglas. One great disadvantage of the former method of fixation is the fact that the strapping used to support the elbow so often slips over the point of the olecranon process, allowing the arm to drop, with recurrence of the original displacement.

In an endeavour to avoid this difficulty the plaster is sometimes applied with the adhesive side next to the skin. This certainly prevents any slipping, but it does not allow of accurate adjustment, and also gives rise to much discomfort, often amounting to actual pain, particularly around the point of the elbow. This pain seems to be equally severe whether a slit for the olecranon process is made in the plaster or not. If, on the other hand, Douglas's method of bandaging is employed, the original disadvantage is again evident. The bandage as a whole tends to become loose, and the final turns round the elbow and over the opposite shoulder slip off the elbow and allow the arm to drop. The bandage may remain in good position during the day, but when the patient is in bed, and particularly if he is somewhat restless, as these patients usually are, the bandage will soon work loose. It is a common experience to find a patient with a fractured clavicle, which has been reduced and firmly bandaged on one day, returning next morning with the bandage loose and the deformity renewed.

To overcome these difficulties I have been using a modification of Sayre's method which has given great satisfaction. The method devised is as follows.

Two five-foot lengths of calico bandage are required. The first, as in Sayre's original method, is looped loosely round the affected arm as high up as possible, the loop being fastened with a safety-pin. The usual pad is placed in the axilla, the shoulder is pulled back as far as possible, and the bandage is carried across the back of the trunk, round across the chest, and pinned to itself just beyond the loop round the arm.

The second bandage, which should be at least six inches wide, is slit from one end for a little less than half its length, and is then applied to the injured arm in the form of a sling, with the two tails to the front, in the following manner. The uncut end of the bandage runs from the unaffected shoulder across the back to the elbow of the affected arm, which it supports, a pad of wool being placed between it and

the olecranon. The bandage is adjusted in such a way that the two tails originate an inch or so in front of the point of the elbow. These tails are then carried round opposite sides of the forearm, and are twisted together once or twice as near to the bend of the elbow as is possible. They are then carried forward as spirals in opposite directions round the forearm, thus crossing on the dorsal aspect of the middle of the forearm, and also at the front of the wrist, where they are again twisted together and carried on as one to the shoulder. The elbow is then drawn upwards, forwards, and inwards to the required position, and secured by tying the ends of the "sling" over the unaffected shoulder. The sling effect of the second bandage has been found to be very stable; the first loop of the tails round the forearm just beyond the elbow effectively prevents any slipping off the elbow.

The spiral round the forearm will be found to support the forearm comfortably in the usual position across the chest, and the combination of the two bandages and the axillary pad will supply the forces necessary to carry the lateral fragment of the clavicle upwards, backwards, and laterally, which is so essential for a perfect result in these cases.

Memoranda :

MEDICAL, SURGICAL, OBSTETRICAL.

VARICOSE VEINS IN THE BROAD LIGAMENTS.

I HAVE been repeatedly struck by the frequency with which enormous varicose veins of the pampiniform plexus occur, but I have been unable to find much written about them, and very little concerning their treatment. The questions naturally arise whether these varices are themselves the cause of abdominal and pelvic symptoms, and how they should be treated.

Most of the patients I have seen have complained of persistent pains of a dull aching character, and a weight in the pelvis; most of them also had vaginal discharge, which in some cases was gonococcal and in others gave pure cultures of *B. coli*. A few patients had been curetted, with no benefit. On examination they complain of sharp pain on pressure in the fornices, similar to that of inflammatory adnexal disease; eventually the pain and discharge have demanded an exploratory operation.

Many of the patients have been under 35 years of age. The menstrual history is normal. An operation discloses no tubal disease, no adhesions, and no uterine displacements; the uterus is in some cases slightly enlarged, but there is present a huge black mass of varicose veins. In

all cases one condition has been very constant—namely, cystic enlargement of both ovaries. It seems unlikely that this cystic state of the ovaries is the cause of the pains, because the condition is often seen when operation is performed for other abnormalities.

We are faced with the following problems: a patient, aged, say, 35, comes with constant uterine discharge and pain, enlarged cystic ovaries, and this condition of varicose veins in the broad ligaments. What is the correct treatment? It seems unlikely that the discharge will cease unless the uterus is removed, which is scarcely justifiable at that age.

Again, should the cystic ovaries be removed? How should the varices be treated? What is to be done with a patient who has no uterine discharge, and whose only abnormalities are varices and cystic ovaries? I put these questions with the hope that experienced gynaecologists and surgeons will give us the benefit of their advice and practice; at present the subject appears to me very full of difficulties.

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FOREIGN BODY IN THE BLADDER CAUSING CALCULUS FORMATION.

FOLLOWING the case reported by Mr. Guy Chambers in the *Journal* of November 5th, 1927 (p. 827), in which a hairpin formed the nucleus of a vesical calculus, and Mr. A. Ralph Thompson's report of five cases of foreign bodies in the urinary bladder (January 14th, p. 51), details of another case should also prove of interest.

The patient, a woman aged 67, is suffering from secondary dementia following manic-depressive insanity, and shows marked amnesia. For some time she suffered from incontinence of urine, which appeared to be more of an inconvenience to others than to herself. At no time did she complain of any pain, nor, in fact, was any clinical history procurable from her. On vaginal examination she was found to have a large hard tumour bulging into the anterior wall of the vagina just behind the external orifice of the urethra; this suggested a stone, and the diagnosis was confirmed by the passage of a bladder sound. In view of the probable presence of a foreign body, I decided to remove the stone by the suprapubic route. When the bladder was opened the stone was found to be impacted over the internal urethral orifice, and to be fixed in this position by a hairpin, the free extremities of which were embedded in the bladder wall. The removal was difficult, the more so because the bladder wall was so friable that it would scarcely hold a stitch. The stone was about the size of a large egg; it weighed 123 grams, and was composed mainly of urates and phosphates.

As shown in the illustration, the offending hairpin traverses the stone in the longitudinal axis, and has evidently formed the nucleus around which the stone was

formed. The length of time taken by the stone to form may be guessed at from the patient's history. It may be assumed that the introduction of the hairpin occurred during a phase of mania, and that it therefore had been in the bladder for upwards of two years. It is extraordinary that the patient did not complain of pain and that the hairpin did not perforate the bladder, in view of the fact that both extremities were embedded in the wall.

There was some degree of cystitis present before the operation, but despite this the patient's condition three weeks after the operation is favourable, and she continues to improve.

I am obliged to the subcommittee of the hospital for permission to publish this case.

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