Gintrac's great work, so often quoted,⁴⁶ and especially the cases of Brunet (p. 292), of Hillairet (pp. 292 and 302), of Forget (p. 297), of Fauvelle (p. 301), of Professor Vulpian (p. 303), of Fleury (p. 303), and of Dr. Childs (p. 306). In cases of softening also paraplegia has been noticed, whether when it had extended to the whole of the cerebellum, as in a case of Murphy's⁴⁷, or only occupied one of its halves, as in cases of Andral, Bernard, and Serres, which I have quoted in the previous lecture.

Facts certainly are numerous in which the cerebellum, the pons Varolii, the medulla oblongata, the corpora striata, &c., have been found diseased in patients attacked with paresis or complete paralysis of the lower extremities, but is it clearly proved that in any one of these cases of complete or incomplete paraplegia the cause of the loss of voluntary movement really was in the part of the brain or of the cerebellum that was diseased? This is the question I will now examine.

ON A CASE OF VARICOCELE TREATED BY RICORD'S OPERATION:

WITH A DESCRIPTION OF A NEW MODE OF APPLYING
THE SUBCUTANEOUS WIRE LOOP.

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ALTHOUGH the following case of varicocele presents no features of interest as regards its causation and symptoms, yet on account of the occurrence of an accident in the course of its treatment it seems to me to be an instructive one and not unworthy of notice, and it affords me an opportunity of directing attention to a slight modification of the method originally suggested by Ricord for the cure of varix of the spermatic cord. For the notes of the case I am indebted to Mr. W. R. Tough.

W. M.—, aged twenty-six, baker, suffering from varicocele, was admitted into Isaac ward on Jan. 31st, 1876. He stated that about three years ago he received a blow on the left testicle, which was followed by considerable swelling and pain, but which disappeared under treatment in about a week. A few days afterwards he got a stress when lifting a heavy mass of dough, and he felt at the time as if something had given way in his scrotum. Soon after he discovered a swelling in the spermatic cord above the left testicle; it was accompanied by some little feeling of pain and uneasiness, and, being of a nervous disposition, he got much alarmed, and forthwith consulted a medical man, who advised him to wear a suspensory bandage and to take perchloride of iron internally. He wore the bandage for two years, but without benefit, the pain still continuing, especially when he was overworked, when the swelling also underwent a marked increase in size.

On examination, the spermatic veins of the left side were found to be enlarged, being about the size of a large forefinger. The swelling was soft and doughy to the touch, was most marked at the upper part of the testicle, and descended slightly behind it. On tracing the veins upwards, they gradually decreased in bulk, and near the external abdominal ring they were of normal size; about an inch from this aperture there was another soft, compressible tumour, apparently due to a varicose condition of a vein or veins at this point. The testicle on the affected side was soft and somewhat atrophied. The right cord and testicle were healthy. There was a slight tendency to varix of the left external saphenous vein.

The patient was in a state of extreme nervousness and depression, and was anxious to be operated on, as he had allowed his mind to dwell on his disease to such a degree that his health had given way, and he felt unfitted for mingling in or enjoying any society.

On Feb. 2nd the affected veins were ligatured sub-

cutaneously in the manner suggested by Ricord, but silver wires were employed in place of silk ligatures. The free ends of the wires were twisted round two small pieces of catheter. With the exception of retention of urine during the first three days, and slight swelling of the epididymis, which was unaccompanied by pain, there were no symptoms worthy of notice. On the sixth day after operation the patient was attacked by diarrhoea, to which he had before been subject, which resisted treatment for several days, and gave rise to considerable increase of temperature, 102.8° F. being registered on Feb. 8th. After various remedies had been tried, a pill containing sulphate of copper and opium completely arrested it.

The ends of the wire were tightened from time to time, but on Feb. 10th one of them unfortunately gave way, and after this another broke off. Fresh ends were with some difficulty applied, in the hope that the ring enclosing the veins might eat its way through them; but this it failed to do, and after waiting for nearly three weeks from the date of operation, and having consulted my colleagues, Professor Pirrie and Dr. Ogston, it was decided to cut off the remaining end, to allow the punctures to heal, and the ring to remain *in situ*. When the patient was dismissed a few days later a hard knot could be felt at and below the point where the ligature rested; above this the veins were not perceptible. I saw the patient about six months afterwards, and so improved was he in appearance that I scarcely recognised him. The pain had entirely disappeared, and with it his miserable forebodings, and he expressed himself as feeling as well as he could desire.

Two cases similar to that just narrated have been placed on record—the first by Mr. Redfern Davies,¹ the second by Mr. Barnard Holt.² In both the wires failed to effect division of the veins, and in both they were allowed to remain. Mr. Davies saw his patient a year afterwards, and found that all things remained as when he left. The patient had resumed work immediately upon leaving, and he was totally unaware of there being any wires in his scrotum. So well satisfied was Mr. Holt with the result in his case that “he considered it was a practice that might be repeated with advantage. Should future cases be attended with a like favourable issue, the proceeding would become general, and the pain and time of the patients be considerably abridged, while the question of recurrence would be entirely set at rest, such an occurrence being impossible so long as the wires acted as compressors.” It does not seem to me, however, that this mode of cure would ever find favour either with surgeons or patients, when it can be achieved with almost equal certainty by mere temporary compression of the affected part.

The procedures suggested by Vidal de Cassis, Lee, Curling, Erichsen, Barwell, Bumstead, and Packard are all reliable, but, for my own part, I give preference to that of Ricord.

The substitution of wire for the silken threads which were formerly used is certainly a decided improvement as regards the risk of inflammatory irritation being set up; but the gain is not unalloyed, for, as is shown by the cases referred to, the wire, on account of the tolerance exhibited by living tissues to metallic bodies, may fail to effect division of the parts round which it is applied. Permanent obliteration of the venous channels is alone required, but, from the mode in which the loops are generally applied, they can only be got rid of when they have cut their way through the mass of veins they surround. Mr. Tufnell, of Dublin,³ seeing the advantages that would accrue were the wires removable at pleasure, proposed the addition of two retractors—i.e., two loops of wire,—one of which was to be passed through each of the loops by which the veins are encircled before the latter were pulled within the scrotum. The suggestion is undoubtedly an ingenious one, but it occurred to me that the matter might be simplified by utilising the original loops, and so rendering further additions unnecessary. What I propose may, I think, be readily understood by a glance at the accompanying figures, for which I am indebted to my friend Mr. Arthur Clyne.

Instead of employing a needle with an eye near the point, a common surgical one, with a broadish point, should be selected. After threading it with a long loop of silver wire, the wire is to be knotted at a point distant about two inches from the eye of the needle, and the wire firmly

⁴⁶ Cours Théorique et Clinique de Pathologie Interne, &c. (1868), vol. vii.

⁴⁷ Edinburgh Medical and Surgical Journal, vol. xvii. (1831), p. 329.

¹ THE LANCET, Feb. 20th, 1861.

² Ibid, Aug. 26th, 1863.

³ Dublin Quarterly Journal, May, 1861.

twisted from this knot to the eye. The vas deferens having been separated from the mass of veins, the needle is to be passed through the scrotal wall, between the vas and the veins, and brought out at the other side. The wire must be

FIG. 1: Shows point where the wire should be knotted.

FIG. 2: Needle completely armed.

FIG. 3: Wires passed, but not tightened. A, Vas deferens; B, Vein; C C, Knots; D D, Loops; E E, Retractors; F F, Free ends.

NOTE.—In Figs. 1 and 2 the ends of the wires are represented as too short, and in Fig. 3 the retractors are also too short; this was necessary on account of the size of the columns by which the artist had to be guided.

drawn out so far as to leave the point at which it was knotted outside the scrotum. The needle may now be removed by slitting the wire at the eye. A blunt-pointed needle or probe, armed exactly as the needle was, is then to be inserted at the aperture of exit of the former one, passed over the opposite side of the veins, and brought out at the original point of entrance of the first needle, and the wire pulled out, and the probe removed, as before. The veins now lie between two double wires, the one in front, the other behind. There are two openings in the scrotum, through each of which there project two free ends, and a twisted portion of wire which has a loop directly in front of the point where the wire was knotted. The ends of each wire are then to be passed through the corresponding loop, and pulled tightly and forcibly in opposite directions until the vessels are completely strangulated. Compression should be kept up by fastening the ends around some resisting body, such as Mr. Tufnell suggested—viz., “a piece of watch-spring bent into an arc, the effort of which to restore itself keeps up continuous tension upon the cord.” The twisted portions project on either side, and are thus available as retractors. When compression has been kept up for a sufficient length of time, the veins may be readily freed from pressure by snipping off the free ends, and making traction on the twisted ends. On August 4th I had the pleasure of assisting my friend Dr. F. F. M. Moir, of this city, in a case where he put this method into practice, and the result was eminently satisfactory, the removal of the wires being effected with perfect ease.

One little matter of detail is worth remembering when performing Ricord's operation—viz., that, instead of threading the second wire on a sharp-pointed needle, a probe, or other blunt instrument, should be used; for, as it has to pass through apertures already made, it does not require a cutting point, and by using a blunt instrument there is no chance of wounding any of the contents of the scrotum, and it ensures the second instrument making its exit at the exact point of entrance of the former one, so that the possibility of including any portion of the structure forming the scrotal wall is avoided.

The simplicity and certainty of the method suggested will, I trust, commend it to those who are called on to treat cases of varicocele by operation, as no appliances are required beyond those found in the pocket-case of every practitioner, and as compression judiciously applied in the manner indicated cannot possibly fail to secure obliteration of the affected veins.

Aberdeen.

ON A CASE OF SYPHILITIC DISEASE OF THE BRAIN.

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THE following case derives its interest from the fact that the symptoms during life and lesions after death were singularly in accordance with the results arrived at by Ferrier in his experiments on the localisation of the functions of the brain. While it thus gives substantial support to Ferrier's views, it occurs very opportunely at the present juncture, when there has been so great an outcry against vivisection, inasmuch as it shows the aid which clinical medicine derives from experimental physiology.

George R—, aged twenty-eight, engraver and letter-cutter, came first under my care as an out-patient on September 8th, 1874, seeking advice for excessive pain in his head and limbs, from which he had been suffering for more than eighteen months.

The history he gave of himself is the following:—He is married, has no living children, but his wife has had seven miscarriages. Nine years ago he had a sore and bubo, which did not break, followed by a rash and sore-throat; a year after he got married, and has often had a repetition of the rash and sore-throat, for which he took pills. Eighteen months ago he suffered severely from an attack of summer cholera. Three months after he began to suffer much from pain in his joints, especially at night; one night when in bed he had sudden spasm of right jaw, which prevented him from opening his mouth for more than a week, during which time he had to live entirely on fluid food. He suffered at the same time from pain in the head, and pain and stiffness in his right upper and lower extremity. For this complaint he was treated anti-syphilitically by his medical man in Bradford, where he then resided. He recovered gradually, and he seemed to be well again about April, 1874, when he moved to Manchester. Soon after, however, the pain in the head returned, and he has suffered from it more or less ever since.

State of the patient on admission:—Slightly built, of lymphatic temperament, a decidedly pale and anæmic look. Physical examination of chest reveals nothing abnormal. No syphilitic nodes, no rash. Fundus of both eyes normal. Tongue clean, appetite normal. Other functions normal.

Considering the syphilitic history of the patient, and the nocturnal pains, an anti-syphilitic treatment was ordered, under which the patient rapidly improved, and soon left off treatment (the last entry being Sept. 29th, 1874.)

On Nov. 12th, 1874, he returned to the infirmary, stating that he had had two epileptic fits since his last visit, one on Oct 12th and the other on Nov. 8th. The fits, he stated, were preceded by peculiar symptoms, consisting in a sensation like electricity in his left arm, which was forcibly flexed, while the left hand was clenched and “powerless.” During the fit he was unconscious, bit his tongue, and foamed at the mouth.

The case was now looked upon as a case of epilepsy depending on a chronic inflammatory process of a syphilitic nature, and the iodide of potassium was again given, but in increased doses (half a drachm). The patient continued to attend up to Christmas, when he again left off treatment, and was again visited by epileptic attacks, preceded again by the peculiar aura in his left arm and hand. For these attacks he was attended at home by a medical man, who prescribed bromide of potassium, which had no effect whatever on the convulsions, and only caused the pain in the head to be more severe; the patient at the same time lost his appetite and felt altogether very ill.

On Jan. 26th, 1875, he again came to the infirmary, and was again treated anti-syphilitically. The convulsions disappeared again under the treatment, while the aura remained. While in this condition I reported the case, together with some other cases of syphilitic nervous disease, in the *Practitioner* for May, 1875.

The further progress of the case is shortly this. The patient remained under treatment, and his condition continued unaltered for some time. One day in June, 1875,