

although at a later stage, when the bowel has been nipped for twenty-four or forty-eight hours, it would be the worst possible treatment perhaps, as it would only hasten the onset of gangrene of the gut and sloughing of the integuments. No doubt care ought to be exercised in the use of ice, as we are not in possession of accurate information as to how long after strangulation has occurred ice may be of service. I suppose, until this is settled definitely, we ought to judge by the urgency of the symptoms whether an icebag should be applied or immediate operation performed.

West Bromwich.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

MIDDLESEX HOSPITAL.

TWO CASES OF EXCISION OF THE ELBOW-JOINT; REMARKS.

(Under the care of Mr. HENRY MORRIS.)

THESE cases form an interesting addition to our literature on the pathology of ankylosis of the elbow-joints. Both presented rare conditions of the lower end of the humerus, in addition to the ankylosis of the joints. In each case the sequestrum found was of small size, but in neither could the good result which was gained by the excision of the joint have been obtained by local removal of the sequestrum had it been possible to localise it. We refer our readers to the remarks by Mr. Morris. For the notes of the cases we are indebted to Mr. Savory, house surgeon.

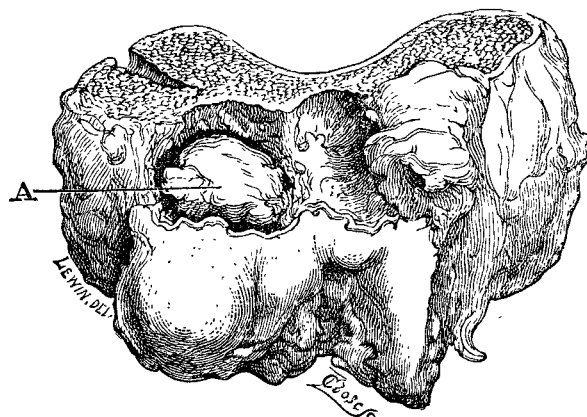
CASE 1.—C. D—, a female aged twenty-one, a draper's assistant, was admitted on June 4th, 1890, complaining of stiffness of the right elbow-joint. Up to April, 1885, she had been able to use the two arms equally, but about that time the right elbow began to get stiff, and soon became flexed at a right angle. She had considerable pain when endeavouring to extend it, and it was very tender on its outer aspect. She could not attribute her trouble to injury or other known cause. She was treated by blistering and splints, the elbow gradually improving, so that for twelve months (1886-87) she had fair use of the limb. Since the beginning of 1887 she had discontinued treatment of all kinds, and the limb had gradually returned to its former condition.

The patient's condition on admission was as follows:—She had a very healthy appearance, and no tubercular tendency was said to exist in her family. Her right elbow had lost its normal contour, and was flexed almost at a right angle and considerably swollen, measuring one inch in circumference more than the left in similar positions. The olecranon was normally apparent. The internal condyle could be defined at its extremity; the outer condyle not at all. Over but more especially just below the outer condyle, and also over the head of the radius, the patient complained of marked tenderness on pressure. Pronation and supination of the forearm were very limited, and flexion and extension almost impossible. A rectangular splint and blisters over the tender spot were applied, but this treatment was carried out only for a week, as the patient was unable to bear the pain it gave.

On June 18th she was anæsthetised, and, an Esmarch bandage having been applied, an exploratory incision was made over the outer condyle, with the object of trephining the bone for chronic abscess. On coming down to the bone a drill was inserted at a spot where there was a minute opening in the bone large enough to admit a pin, but no pus was found, and a second introduction was followed by a like negative result. The forearm was then forcibly flexed, and on the giving away of firm adhesions round the joint, so much bony grating was felt that it was decided to excise the joint. This was done in the usual way, by an incision over the centre of the olecranon, the former incision being disregarded. The articular surface of the ulna was found bare and rough in places; there was advanced synovial

disease of the radial joint, and the articular cartilage of the radius and capitellum of the humerus was thinned, softened, and very easily raised off, but no pus was found anywhere. On cutting across the lower end of the humerus, there was found in the external condyle a cavity large enough to contain a marble; it was partly filled by a dry white sequestrum, rough, irregular, and attached to the living bone by a few slender processes; there was no pus in this cavity. The drill had missed the sequestrum cavity by about one-eighth of an inch. The elbow was dressed with dry antiseptic dressings and placed on a pillow, no splint being used.

The patient made a rapid recovery, and was able to flex

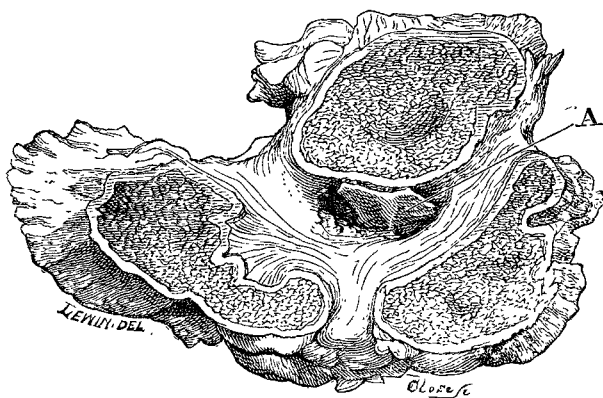


The excised portion of the humerus. A points to the sequestrum within the cavity of the external condyle. The drill line is seen above to almost reach this cavity.

the forearm to its full extent. She was discharged on July 11th, her power of moving the elbow having daily increased.

CASE 2.—G. W—, a grocer aged thirty-one, a tall, slender man, was thrown from a trap on Nov. 20th, 1889, and sustained a compound fracture of the arm. He stated that it was fourteen hours before the arm was set, and that a large vessel had to be tied, but it continued bleeding all the first night following the injury. The arm became very much swollen, and several abscesses were opened in the course of a few days in the neighbourhood of the elbow; he then went about with the arm in a sling, and the elbow-joint soon became immovable.

On admission on June 4th, 1890, the left elbow was found to be fixed at an obtuse angle of about 120°. There was no movement of flexion, extension, pronation, or supination. Some thickening existed at the lower end of the humerus, but the outlines of the joint were distinct. The joint was painful and tender; there were three scars about it. The



Section through the lower end of humerus, showing union of fracture by fibrous tissue. A points to splinter of bone in minute abscess in fibrous uniting medium.

hand and forearm were cold and blue, the muscles of the limb considerably wasted, the movements of the fingers impaired, and sensation in the distribution of the median nerve was slightly modified.

On June 11th the patient was anæsthetised. The ankylosis of the elbow was found to be complete, so the joint was excised through an incision over the centre of the olecranon. On taking off the section from the lower end of the humerus a small quantity of pus was seen escaping from the centre of a fibrous uniting medium whereby the fracture had been repaired; another section was therefore removed. The original injury had been a T-shaped fracture

into the joint, breaking the condyles from the shaft and from one another. The two condyles were united by a soft ligamentous-looking structure, and these were united by a similar material to the shaft, the lower end of which was forwardly displaced and had no doubt caused some slight pressure on the median nerve. In the T-shaped fibrous tissue uniting three pieces of bone was a small space in which was a little pus and a triangular scale of necrosed bone of ivory whiteness and density; it was quite loose. There was a good deal of oozing from the cut tissues, especially from the ulna; the bleeding from the bone was checked by driving in an ivory plug. Dry antiseptic dressings with gauze were used, and the limb placed on a pillow. No splint was employed. The wounds healed by first intention, and the patient left the hospital, the arm rapidly gaining power and movement.

Remarks by Mr. HENRY MORRIS.—These cases are of unusual character and of considerable interest to the surgeon. The one teaches the advisability of searching carefully for the cause of ankylosis, especially in a healthy person where there has been no injury. The other points to the wisdom of following the plan of excising the joint at once in cases of compound comminuted fracture of the elbow-joint. The first patient was placed under my care by Dr. J. Hopkins Walters of Reading, who wrote: "The elbow has considerably altered since I last saw it, both as to swelling and immobility, and, so far as I can tell, the head of the radius and probably the radio-ulnar articulation are now actively diseased, and I doubt if anything short of excision will be of any use to her." The result shows how correct Dr. Walters' opinion was, and the question arose, why the disease was so much emphasised on the outer side of the joint. The patient was not scrofulous; the joint had been affected for five years, having been at one time better, at another much worse, and there was a spot over the outer condyle specially tender on pressure. For these reasons, and because the case in these respects much resembled another once under my care, where ankylosis of the elbow resulted from a chronic abscess in the outer condyle of the humerus (the case, with others of chronic abscess in bones, was read at the Worcester meeting of the British Medical Association and afterwards published in the journal), I was induced to search for a similar cause in this young woman. As will be seen, I failed to reach the cavity with the drill, but, had I quite succeeded in this, no evidence would have been afforded by the escape of pus of the central necrosis; nor is it certain that, had I detected the necrosis before excising the joint, repair resulting in a useful articulation could have taken place. This, however, is quite open to question, and had I found and removed the sequestrum, I most certainly should have given nature a chance to complete the cure and restore the limb to usefulness without going on to excision. Out of many cases of chronic inflammation resulting in small cavities in the articular ends of long bones which have come under my care, this is the first in which the sequestrum has been "dry"—i.e., without association with pus. The others have been one or other of two kinds: namely, the cavity has contained pus only, and a lining of thick, velvety, pyogenic membrane; or with these characters there has also been within the cavity, and bathed in the pus, a small sequestrum of the size of a horse-bean, a pea, or even a grape-seed. In Case 2 it cannot be doubted that the patient would have been saved much suffering and much loss of time had primary excision of the joint been employed. The suppuration which ensued produced the ankylosis, and the fibrous medium of union and the pressure on the median nerve caused by the displaced lower end of the shaft of the humerus prove the difficulty of reducing and keeping in place these comminuted fractures when followed by great inflammatory action; whilst the splinter of bone surrounded by a few drops of pus and buried in the soft uniting medium proves how much smouldering fire may be excited and kept up by some undiscovered spark. In a case of compound fracture of the head of the radius in a young man under the late Mr. De Morgan's care, I witnessed an excellent result with a mobile joint follow the removal of the fragments of the broken radial head without excision of the articulation. Encouraged by this I was led some years ago to adopt the same treatment in a more extensive compound fracture of the elbow of a robust young labourer. Violent inflammation with intense suffering and swelling of the whole limb followed, and excision had subsequently to be practised under much less favourable circumstances than if it had been done as a primary operation. The patient

ultimately obtained a perfectly useful and very powerful limb; but I have never since been induced to repeat the treatment, and I am inclined to think it might be laid down as a rule of surgery that "in compound comminuted fracture of the elbow in an adult, primary excision of the joint should be performed."

CUMBERLAND INFIRMARY.

A CASE OF CHOREA, WITH APHASIA, FOLLOWED BY ACUTE RHEUMATISM; REMARKS.

(Under the care of Dr. LOCKIE)

CHOREA not infrequently comes on in the course of an attack of acute rheumatism, but the relationship between the two diseases is not often manifested as in this case, where the rheumatism developed some weeks after the first symptoms of chorea were noticed. Koch¹ has come to the conclusion that the choreic virus is so closely related to that of articular rheumatism that either form of the disease can be caused by it. Endocarditis is also closely related to chorea, and if in any case it precedes an attack of chorea, the endocarditis may in that case be considered as due to the choreic virus. With reference to the presence of cardiac disease in this affection, Dr. Osler² has found that out of 115 fatal cases of chorea which had been examined after death, the cardiac valves were normal in only ten, although there had been no evidence of cardiac disease in several of them during life. Naunyn³ has described a curious case, in which a reddish-brown fungus was found at the base of the brain, also in the vegetations on the mitral valve, which fungoid growth was supposed to be the cause of the chorea in that case. We are indebted for the following notes to Mr. Louis E. Stevenson, house surgeon.

M. A. D—, aged eleven, was admitted to the Cumberland Infirmary on Feb. 12th, 1890, with aphasia and choreic movements equally marked on both sides. She had been quite healthy till two months before admission, when she was noticed by her family to be snappy, peevish, and irritable. She had been before somewhat hard worked at school. The choreic movements began on Jan. 31st, and were preceded by profuse diarrhoea, which exhausted the child somewhat. On Feb. 2nd she complained of headache, and her head felt hot. The child screamed a good deal during the night, and only spoke a few words during the following day. On the 7th she lost the power of speech. Before admission she had never vomited; the bowels were constipated after the primary diarrhoea. The movements first noticed by friends were—movement of the left hand especially, throwing back of the head, grimacing, and unmeaning laughter. It was noticed that the child slept fairly well, and that the movements ceased during sleep. Father alive, and perfectly healthy. Mother died of phthisis. Rest of family apparently healthy.

On admission the child was semi-conscious, but smiled when talked to. The movements of the legs and arms went on almost continuously. The left and right sides of the face were drawn up alternately at intervals. Pupils a little dilated; reacted to light; no inequality of pupils. An occasional internal strabismus was noticed. When told to do so, she put out her tongue quite straight, but it was soon jerked back in the characteristic manner. Abdomen not retracted. Pulse 90, feeble. No cardiac bruit. Temperature on admission 98°. No cough; lungs normal. Liver and spleen normal. The patient understood what was said to her, but could not speak.

Feb. 14th.—More conscious this morning; slept fairly well, and movements ceased during sleep. Took two pints of milk during the night.

16th.—A good deal of crying last night. Passed no urine during the night. Passed only seven ounces yesterday. Bladder not distended this morning. Very restless. Has a slight cough. The child is evidently in pain. Hot fomentations ordered to be applied to the loins. Towards evening six ounces of urine were drawn off by catheter; it was found to be acid, with a copious deposit of urates, and contained albumen also. She has slept badly during the last two nights. Ordered six grains of bromide of ammonium every two hours till sleep is obtained.

17th.—No urine passed during the night. Takes a

¹ Arch. für Klin. Med., 1888.

² American Journal of the Medical Sciences, October, 1887.

³ Mittheilung aus der Medicinischen Klinik zu Königsberg, 1888. Also Sajous, vol. ii. B., 1889.