

The scarlet colour was, however, noticed to be less bright than in ordinary cases of erysipelas.

Mr. South now desired that twelve ounces of wine should be given; the dressings were carefully changed, and the man experienced much benefit from both measures.

The erysipelatous inflammation continued to extend for the two next days; the pulse lost considerably in power, and the patient became much enfeebled. Brandy and soda-water were now given; this combination restored the strength a little, and allayed the sickness, which had been very troublesome. But the most strenuous efforts to save the patient were unavailing, and after bringing up grumous matter, resembling coffee-grounds, he died on the 19th of April, sixteen days after the operation.

This case may appear very inconclusive as to the immediate danger of the operation, for erysipelas may supervene upon the most trifling surgical proceedings. But it remains clear, that weak, debilitated, and worn-out subjects have not sufficient power to resist attacks of this kind, after the excision of a joint. It may thus be considered as a very safe course to ascertain the patient's amount of strength when projecting the resection of an articulation, so that there may be a good chance of his resisting the complications which may follow even ordinary operations, and which are perhaps more likely to occur when such extensive wounds are made as are necessary for the removal of a joint.

UNIVERSITY COLLEGE HOSPITAL.


Excision of the Elbow-joint upon a Child of five years; Inflammation of the Humerus; Phlebitis; Death.

(Under the care of Mr. ERICHSEN.)

THIS case refers to a much younger subject than the above, and the fatal results were here apparently owing to the inflammation of bone, and purulent infection. The following details are obtained from the notes of Mr. Turle, late house-surgeon to the hospital:—

J. D—, aged five years, a healthy-looking female child, was brought to the hospital in November, 1851, with disease of the right elbow-joint, and placed under the care of Mr. Erichsen. On inquiry, it appeared that about six months previously, she had met with an injury of the arm. Since then the joint had continued swollen and red for some time; matter had then formed, which was let out, and fistulous openings had existed ever since. As there was much swelling and redness about the soft parts, the child was taken in for treatment.

On examination it was observed that the fistulous openings led down to diseased bone, both over the humerus and the ulna; and that the joint was loosened and disorganized. As the discharge was abundant, and the child's health had suffered seriously, Mr. Erichsen determined to remove the diseased articulations.

He accordingly operated on December 3, 1851, making incisions of this shape  along the course of the ulnar nerve, and across the joint. Mr. Erichsen next cut off the olecranon; and opening the articulation, found the whole of the surfaces of the humerus and ulna in a carious state, and the cartilages detached and softened. He removed these portions of bone with the saw, but finding the head of the radius healthy, allowed it to remain untouched. The margins of the wound were brought together with sutures, and lightly covered with water-dressing.

On the fifth day after the operation, the arm was found much swollen and painful; the child became extremely feverish, and the wound looked sloughy. The fever continued, with extreme sensibility about the surface and the other articulations, as about the knees and ankles, the febrile paroxysms assuming an intermittent character, and the symptoms resembling those of purulent infection. These continued until the fourteenth day, when the child died.

On examination the humerus was found greatly thickened and expanded in its structure at the lower part; the compact texture being laminated, and the whole of the medullary canal filled with pus. The axillary vein was inflamed, and contained pus; and the lungs were congested and inflamed in patches.

Excision of the Elbow-Joint upon a Child of twelve years; Recovery with a Useful Arm.

(Under the care of Mr. ERICHSEN.)

William H—, aged twelve years, was admitted Feb. 23, 1852, under the care of Mr. Erichsen. He is of rather delicate appearance; his right arm was bent at a right angle; no ex-

tension could be made, and but little flexion, owing to ankylosis of the elbow-joint. On the inner side of the articulation existed the opening of a sinus; a probe passed into this struck against a carious portion of the olecranon.

The boy stated that three years ago he had inflammation of this joint, for which he was treated at the Middlesex Hospital, and afterwards at the Margate Infirmary; and that at the latter place he slipped down and cut the elbow, the fistulous opening now existing having resulted from this accident.

On Feb. 25, 1852, Mr. Erichsen (the boy having taken chloroform) made a longitudinal incision on the inner side of the arm, extending above and below the joint; from this a transverse one was carried across the olecranon to its outer side, and the flaps were dissected up. The olecranon, and a portion of the outer condyle of the humerus, were found to be diseased; these were removed by a small saw and the pliers, the wound having been enlarged during the operation by a longitudinal incision along the outer side of the elbow. Two ligatures only were required. Wet lint was applied between the flaps, and in the evening the flaps were brought together by sutures and strips of isinglass plaster.

During the first two or three days subsequent to the operation, some slight febrile symptoms were present, for which effervescing saline draughts were ordered.

On the sixth day there was considerable bagging of the flap; a probe was passed beneath, and a large quantity of pus thus evacuated, and a poultice afterwards applied.

On the tenth day the discharge was copious and healthy; a leather splint was placed beneath the arm, keeping it at an obtuse angle to prevent flexion. Febrile symptoms nearly gone.

From this time to the seventh week, the period of his discharge, the boy continued to do well; the wound (dressed daily with stimulant lotions, sulphate of copper, &c.) gradually cicatrized; several sinuses in the flaps were touched from time to time with nitrate of silver, and slowly closed. The health continued good, and the patient took cod-liver oil and quinine; his diet consisting of meat every day, and half a pint of porter.

The elbow and arm were supported throughout in a flexed position by a splint on the palmar surface, except latterly, when two gutta percha lateral splints were substituted for the trough-shaped leather one.

The boy was seen some time after his dismissal from the hospital. There was then no external wound whatever, the sinuses having perfectly healed. The elbow had become reduced to about its natural size, and the health remained good. The arm has since regained a good deal of strength, and is used for most ordinary purposes.

Excision of the Elbow-joint upon a Child eight years old; Recovery with a useful arm.

(Under the care of Mr. ERICHSEN.)

Margaret H—, aged eight years, of fair complexion, and apparently of scrofulous diathesis, was admitted, March 1, 1852, under the care of Mr. Erichsen. It was stated that the right elbow had been tender since birth, and that about two years previous to admission, the child had received a blow on the joint. Soon afterwards an abscess had formed, which burst, and remained open. After attending for some time as an out-patient, the little girl was admitted into the hospital in December, 1851. There was then false ankylosis of the joint, and over the head of the ulna a sinus was observed, which led to diseased bone; and there were also two other sinuses near the articulation.

On the 17th of December, 1851, chloroform was given, and Mr. Erichsen made an incision over the head of the ulna, and removed the carious portion with a gouge. The patient remained in the hospital, after this operation, until Jan. 7, 1852, when she was again made an out-patient, granulations having sprung up and covered the bone, and the wound cicatrized.

On re-admission, in March, 1852, about three months after the operation, there still existed a fistulous opening, a probe passed into which struck against dead bone; the child's health appeared pretty good.

On March 3, 1852, after the administration of chloroform, Mr. Erichsen commenced the operation of resection by making an incision on the inner side of the joint about three inches in length, and from this a transverse one at about the level of the interval between the head of the radius and the external condyle of the humerus. The flaps were dissected up, and the head of the ulna exposed. This being found in a carious condition, the whole of it was removed by a strong pair of bone forceps. It was now also discovered that the

articular surfaces of the lower end of the humerus were implicated in the disease. These were removed by the saw, the contiguous soft parts being protected by a copper spatula. The head of the radius being rough to the feel, was lastly cut off below the orbicular ligament. Wet lint was applied to the wound, the child removed to bed, and five minims of laudanum were given. The arm was placed in a semi-flexed position.

On the second day, she was going on well; tongue clean; bowels opened by house-medicine. The wound was dressed from the bottom with wet lint, and a poultice applied over the surface.

On the fifth day, the wound was going on well; it was dressed with sulphate-of-zinc lotion, and the flaps were also ordered to be supported by strips of adhesive plaster.

On the 16th of March, thirteen days after the operation, the general health continued good. The wound had been for some days filling from below with granulations, the ends of the bones being nearly covered. A leather splint was applied, to support the arm, and keep it flexed at an acute angle, and thus to approximate the ends of the bones. Quinine was ordered; the child continued to progress favourably from this time, the wound gradually closing and cicatrizing over. She took cod-liver oil with great advantage to her health.

She was discharged, April 29, 1852; and it has since been found that the operation was crowned with complete success, as the parts have firmly cicatrized, and the child has very useful motions of the elbow-joint.

There are in this case two circumstances which should not remain unnoticed: first, that the affection of the elbow-joint seems to have been in some degree *congenital*, the decided tendency to disease in the articulation being further excited by a slight accident which subsequently took place. The second fact which calls for remark is the ill-success which followed the removal of some portions of carious bone. These incomplete measures seem to be of little avail. A striking example of the truth of this assertion is offered by this case, and those which were reported in last week's "Mirror" as treated by Mr. Stanley, at St. Bartholomew's Hospital. Another example was some time ago afforded by a patient of Mr. Henry Charles Johnson, at St. George's Hospital. Here Mr. Johnson laid bare the elbow-joint, after the patient (a man of middle age) had suffered considerably from chronic inflammation of the articulation. As much bone as was found diseased was removed, and the flaps brought together. But healthy action was not induced, and the state of the joint, as well as the man's health, became so unfavourable, that Mr. Johnson was eventually obliged to amputate the arm, on January 10, 1852. The patient recovered very satisfactorily.

It would seem, in some degree, that success depends on the contact of perfectly healthy osseous structures, and that any granulations or incipiently carious bone which is left behind render the surgeon's best efforts nugatory.

Excision of the Head of the Humerus; Recovery with a Movable Joint.

(Under the care of Mr. ERICHSEN.)

John C—, aged six years, was admitted in October, 1851, under the care of Mr. Erichsen. Some months previous to admission, the patient dislocated the head of the left humerus; this luxation was reduced, but the bone had afterwards a tendency to project forwards, and the movements of the joint became considerably impaired.

Having been treated for some time as an out-patient, the boy was removed into the country; he returned in the beginning of October, 1851, and was received into the hospital.

Two prominences were at this time noticed on the left shoulder; one on its outer aspect, the other on its posterior; and in both fluctuation could be felt. A third prominence existed anteriorly, external to the coracoid process; this was firm, and probably the head of the humerus. The patient was unable to raise his arm to a horizontal position, by a considerable angle.

On October 8th, Mr. Erichsen removed some curdy pus from the posterior sac by a trocar and canula, and injected some dilute tincture of iodine.

The child was soon afterwards taken into the country again, but his health becoming seriously affected, he was brought to the hospital in November, and was then found to be in a very precarious state, being much debilitated and suffering from hectic; cod-liver oil and steel wine were ordered.

On Nov. 24th, 1851, chloroform having been given, Mr. Erichsen proceeded to remove the diseased bone. A flap was dissected up, which included the deltoid muscle with the

integument, thus exposing the shoulder-joint on its outer aspect. The head of the humerus as well as the upper part of the glenoid cavity, were found in a carious condition, the former being denuded of cartilage. The head of the bone was consequently removed, and the carious portion of the glenoid cavity extracted by the gouge. Some hours after the operation, the flap was secured by sutures and strips of plaster, and water-dressing applied.

No bad symptoms presented itself during the first few days; on the 8th day after the operation, there was free discharge of healthy pus from the lower part of the wound; no febrile symptoms were observed. Ordered, one grain of quinine in infusion of orange-peel, three times a day. On the 17th day, cicatrization was rapidly advancing; some prominent granulations were touched with sulphate of copper: the boy's health had much improved since the operation. On the 30th day after the excision of the head of the humerus, the wound had healed, with the exception of the openings of several sinuses, through the most posterior of which, carious bone could be felt by the probe. Some days afterwards an abscess formed in front of the joint, and was opened by Mr. Erichsen.

On Feb. 4th, nine weeks after the operation, a careful examination having been previously made, and some roughness of the bone discovered, Mr. Erichsen made an incision through the cicatrix of the old wound, and removed a portion of the shaft of the humerus, about three-quarters of an inch in length; the diseased bone was surrounded by a thick layer of newly-deposited osseous tissue. There was considerable hæmorrhage from the medullary canal.

From the period of this operation the child progressed most satisfactorily and rapidly, with regard both to the shoulder and to his general health. The wound closed, and the several sinuses, after discharging freely for some time, gradually contracted under the application of solid nitrate of silver and stimulating lotions, and finally healed.

The arm was throughout carefully kept to the side, the elbow being at the same time elevated.

April 2nd, (124th day after the primary operation.)—The boy has been for some days an out-patient; the cicatrices of the incisions and sinuses now alone remain; some movement of the joint can be made without occasioning pain. His health appears to be now quite restored.

The child was seen by Mr. Erichsen in November, 1852, just one twelvemonth after the excision of the head of the humerus. The cicatrix was firm and puckered, the movements of the arm partially free, and the patient's health good.

Some weeks after this period, however, an abscess formed under the clavicle, on the affected side; this was opened by Mr. Erichsen, who thought that perhaps the collar-bone might now be the seat of diseased action.

What do we learn from the cases which have now, in this and the last number of THE LANCET, been brought before the profession in a connected form? That the operation of excision of the shoulder or elbow joint is a highly useful operation which has the great merit of preserving the limb, the latter even becoming of considerable use after the expiration of ten or twelve months at the least. We also learn that the operation may fail altogether, and leave the arm in as unsatisfactory a condition as before the operation was undertaken. We likewise become acquainted with the fact that excision of the elbow-joint may be followed by fatal results, either from erysipelas, inflammation of bone, or purulent absorption. But there is in peculiarly constituted subjects another source of danger—viz. hæmorrhage; this accident happens but very rarely, but we have nevertheless seen a case at the London Hospital, under the care of Mr. Curling, which offered an illustration of this fact. Excision of the elbow-joint had been performed in the usual manner for chronic disease of the articulation, when repeated hæmorrhage necessitated amputation of the arm; but the hæmorrhagic diathesis was so strongly marked that the patient eventually died from loss of blood.

We earnestly hope that the foregoing series of cases will lead to practical inferences which may tend to throw a little additional light on the bearings of an operation of which modern surgery may justly be proud.

APPOINTMENTS.—Dr. Tanner has been re-appointed physician to the Hospital for Women.—Dr. Maurice Schulhof has been elected physician to the Royal General Dispensary, Bartholomew-close.