On excision of the hip / by J.K. Barton.

Tracts 1813. (1)

ON

EXCISION OF THE HIP.

BY

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BY JOHN FALCONER, 53, UPPER SACKVILLE-STREET.

1883.

Fig. 1.—L. M., 12 years of age. Right Hip excised 22nd May, 1882. Photograph taken May, 1883.

Fig. 2.—M. R., 14 years of age. Right Hip excised 17th October, 1882. Photograph taken May, 1883.

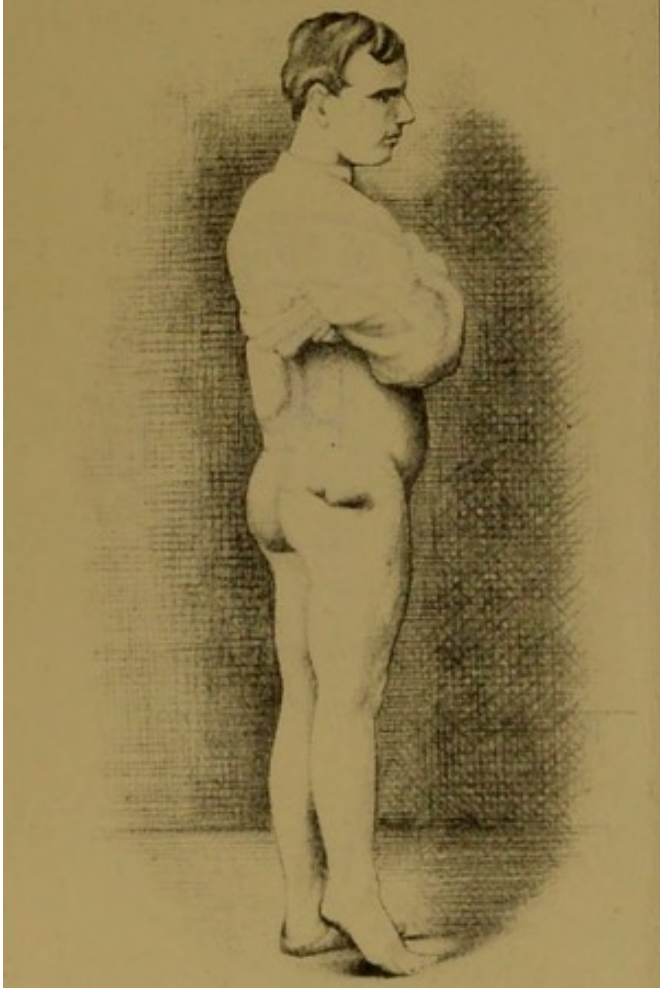

Fig. 3.—W. F., 17 years of age. Excision of Hip 6 years previously.

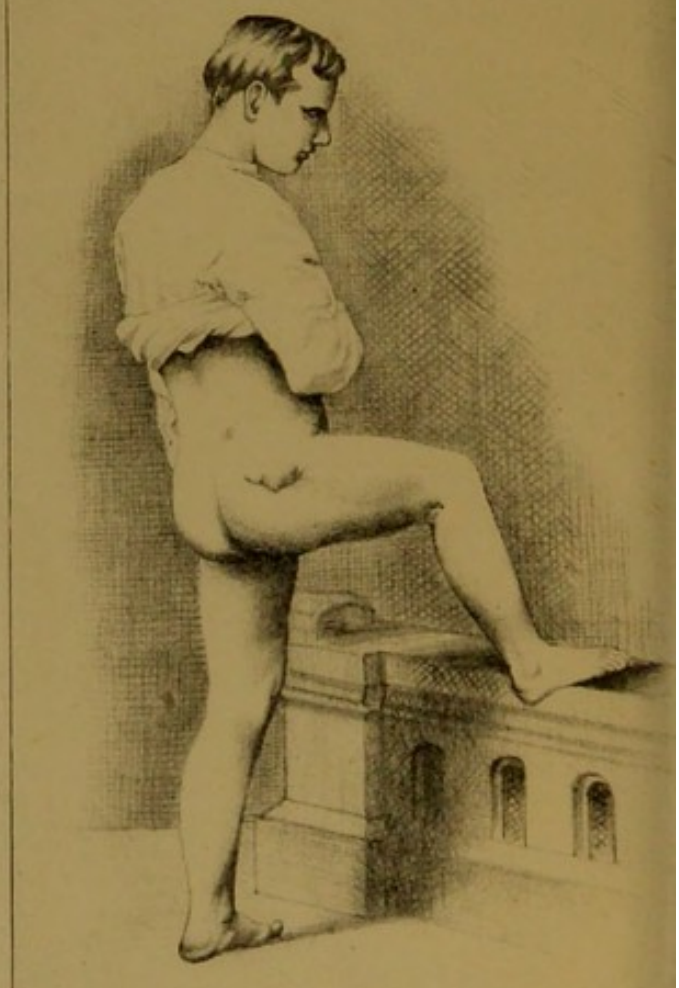

Fig. 4.—Same, showing power of flexion.

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The operation of excision of the hip was the subject of a very interesting discussion at the Congress which assembled in London, in August, 1881, from which discussion it appeared that surgeons differed widely in their estimation of the operation—those, however, who had the largest experience clinging to the hope, in spite of many failures, that in excision we possess the means of averting the fatal changes which so often follow on hip disease, provided it is done in sufficient time. This is the view I myself hold, although of the seven cases I then reported only one had finally recovered. Further experience will enable us to decide more accurately the precise period when excision should be done, as well as the kind of cases which will be most relieved by it; improvements also in the operation and after-treatment will tend to diminish the failures and increase the proportion of our successful cases. To the plan of after-treatment which I adopted in the cases I am now about to relate I attribute much of their success. It was the *open*, in contra-distinction to all other methods of dressing. The wound being behind the hip was the natural drain from the cut and diseased bone, and it was kept as clean and free as possible by daily syringing with a weak carbolic solution. That this might be done effectively without moving the patient—which in the first two or three weeks after the operation is important—I had a piece cut out of the mattress upon which the patient lay, exactly corresponding to the operation wound, which piece could be taken out

and returned again at pleasure. When the wound was to be dressed this was withdrawn, the antiseptic tow or wool which covered it was removed, and a tray introduced into which all discharges and washings flowed. By this means absolute rest was maintained, while the wound was thoroughly and constantly washed out—a proceeding which I consider most important.

The cases I have now to relate, and add to those already reported, are two in number—both girls, one aged twelve and the other fourteen years at the time of the operation. In the first case a year has all but elapsed since the operation; in the second more than six months.

Case VIII.—L. M., aged twelve years, was admitted into the Adelaide Hospital, in November, 1880, suffering from disease of the right hip-joint, in its early stage. There was the usual well-known signs of the disease in its first stage, starting of the limb at night being as yet only occasionally felt. She was placed in bed, with a 3lb. weight attached to the foot, which she found pleasant, and it entirely prevented the starting. For months she progressed most favourably; the joint was painless, and she was absolutely free from any constitutional disturbance. In the following summer signs of suppuration for the first time began to show themselves; an abscess formed on the upper and outer part of the thigh, and six or eight ounces of pus were evacuated from it. This partially healed, and was followed by others at intervals of six weeks or two months. Thomas's splint was applied, and, supported by this, she was removed out of hospital to the House of Rest at Merrion, where she remained for three months—at first seeming to benefit by the change to the sea air, but subsequently it became evident she was losing ground rapidly. Under these circumstances I admitted her the second time into hospital in May, 1882, and proposed excision of the upper part of the femur as her only chance of recovery.

Her condition at this time was as follows:—There were four ulcerated openings in the neighbourhood of the diseased joint—three in front and one behind, surrounded by thin undermined skin, and closed by flabby granulations, through which the probe passed deeply towards the upper part of the femur. The discharge of pus from all these openings was copious. The child was greatly

emaciated and pale, except towards evening, when a bright hectic flush appeared, which was followed during the early part of the night by copious sweats. The tongue was red and shining; the liver was enlarged downwards; there was absolute loss of appetite for any food; urine contained no albumen—sp. gr. 1018; the heart sounds were normal; pulse, 134; the lungs healthy.

The operation was performed on the morning of the 23rd of May, 1882.

As soon as the bone was exposed it became evident that the trochanter major was quite softened, and a bone forceps, applied immediately below this prominence, cut the shaft easily. The upper extremity came away in pieces, the head being scarcely recognisable. The acetabulum was not much engaged; it was freely gouged, but when I examined the cut end of the femur, I found it to consist of a mere shell of compact tissue, the cancellous structure being destroyed. A further section of the bone, therefore, become necessary, and the saw was applied about an inch below the first division of the bone. This had to be done a second time about half an inch lower still, before any bone giving a hope of restoration was reached. Fully five inches of the bone altogether was cut away, as compared with the other limb; but as it came away in broken fragments it was not possible to say how much was removed by absorption before the operation, and how much by the saw.

The wound was freely washed out with a 30-grain solution of chloride of zinc, and the deep parts of the cavity then filled with pledgets of lint, with silk thread attached to each, and soaked in carbolic oil. This checked oozing of blood, which the exhausted condition of the patient rendered peculiarly necessary.

The plan of dressing adopted was to keep the wound well open, and to remove all discharge by frequent washing. To facilitate this plan the bed had been prepared by cutting a piece out of the mattress corresponding to the position of the wound, when the patient was placed in bed, and large enough to permit a tray to be placed under the hip, and the wound freely syringed out without moving the child at all.

The limb being placed in a straight position the patient was removed to bed, and the position maintained by means of a weight of 3lb. and sandbags laid on each side of the limb. Considerable collapse followed the operation, but by the evening the patient had rallied, and a suitable sedative procured rest.

The pledgets of lint were removed within two or three days, and the wound was constantly syringed out with a 1 to 30 solution of chloride of lime by the dresser (Mr. Drake), who took excellent care of the case.

In twenty-four hours after this operation the patient began to ask for food, and in less than three days she had an excellent appetite, contrasting very strongly with her complete distaste for food previously. The discharge from the wound gradually became less. The ulcers in front of the thigh did not heal, but contracted, and discharged very little. The limb gradually gained in power, and simultaneously was drawn up, the cut end of the femur approaching more nearly to the acetabulum. The weight was continued until July 8th, six weeks after the operation, when it was removed finally, and no starting of the limb was felt. Upon the 1st of August this patient left the hospital for Bray, where she has been since.

Her progress towards health has been very slow, but she has a good appetite, sleeps well, can walk with crutches, and enjoys being in the open air all day when the weather is fine.

The present condition of the limb is as follows:—It is five inches shorter than the other. It is quite straight, and the patient, when lying down, has power over it to flex and extend, abduct and adduct it. There are still openings in front, which discharge pus, sometimes copiously. The operation wound behind is not quite healed, but is very small and contracted. When standing the patient can put the toe of the excised limb upon the ground, and bear her weight to some extent upon it. There is no pain whatever. The accompanying lithograph, from a photograph, gives a better idea of the limb than any further description could do (see Fig. 1).*

In this case twelve months have nearly elapsed since the operation, and, such is the state of the patient, there can be no doubt that if the operation had not been performed she must have died; so that it has been successful in saving life so far. But what prospect is there of a useful limb? I believe a very good one, if fresh air, rest, and nourishment are continued as at present. The case is encouraging in this respect—that the shaft of the femur

* Since the photograph was taken (now three months) L. M. has made a great advance towards health.

was so extensively diseased that amputation seemed the only recourse, yet such consolidation has taken place as to render the prospect of ultimately obtaining a useful limb by no means a bad one.

Case IX.—M. R., fourteen years of age, was admitted to the Madeline Ward, Adelaide Hospital, in September, 1882, suffering from recurrent disease in the right hip. Her history was as follows:—When seven years of age—having been up to that time in excellent health—she fell off a table and hurt her right hip severely. This accident was succeeded by signs of disease of the joint, which continued for two years, during which time she was mostly confined to bed. At the end of that time she was so well as to go about, and she continued to do so, though lame, for five years, during the entire of which time she enjoyed good health. In May, 1882, however, she had another fall upon her hip, and in June an abscess formed behind the trochanter, and continued to discharge copiously. This was followed by another in August, a little in front of the former one, this also continuing to discharge purulent matter. Upon examination two diseased conditions were easily recognised in the right hip, the first being that the joint was firmly ankylosed in a semiflexed position, and the second that there existed considerable disease in the trochanter major in an active and progressive state. The ankylosis was evidently due to the disease which had begun when she was seven years old, and had been recovered from; the active caries now progressing appeared to have arisen only four months before her admission. This disease had not as yet in any appreciable extent affected her general health, which seemed still excellent. For the purpose of removing the diseased trochanter, and at the same time rectifying the deformed position of the limb, I advised excision of the upper part of the femur, which accordingly was performed upon the 17th of October, 1882. The head was found firmly ankylosed to the acetabulum, and was removed with difficulty, inasmuch as the bone forming the trochanter was so soft as at once to break down when used as a fulcrum to bring out the head. The section of the bone was made first under the trochanter, and all the bone above this was removed piecemeal, and broke down very easily, but the ankylosed head of the bone was quite firm, and it was some time before the separation was satisfactorily made, and the limb brought into the straight position.

This case was dressed in precisely the same manner as the last—that is, the limb was kept in the straight position by means of a light weight attached to the foot, and by sandbags on either side, while the wound was kept well open by being dressed from the bottom and thoroughly syringed out daily. Nothing but a piece of lint wetted in a weak solution of chloride of lime was put over the wound.

Upon two occasions there was temporary rise of temperature, quick pulse, and loss of appetite, which was found to be caused by discharge imprisoned in the deep part of the wound. When this was given free vent all went well.

In three months from the date of the operation she was able to be up, placing the foot firmly on the ground, and walking with crutches.

She then left for Bray, where she remained since, and where she has had an attack of erysipelas which has delayed her recovery.

The accompanying lithograph, from a photograph, shows the present state of the limb, in all respects a most hopeful one (Fig. 2).

In this case resection of the upper extremity of the femur has done a double service:—

1st. In correcting a deformity which, had it been uncomplicated, would have rendered the patient a cripple; and,

2nd. In removing a recurrent caries of the trochanter which was producing rapid and destructive changes in the bone.

Resection has, therefore, in this case been successful in preventing the advance of disease, which would have soon threatened the patient's life, and also in giving her a straight useful limb, four inches instead of seven inches shorter than the other.

In discussing the question of the treatment most suitable after excision of the hip, any argument drawn from our experience of that found most successful in excision of the knee is valueless, inasmuch as the two cases differ in almost every particular; thus excision of the knee is performed for synovial or cartilage disease, that of the hip for caries or necrosis, and consequently in the former we expect primary union and osseous ankylosis, while in the latter the deep wound must granulate, and we only expect fibrous union; it follows that absolute rest must be our primary object in the after-

treatment of knee excision, while *free drainage* must be our primary object in the after-treatment of hip excision.

It is because I am persuaded of the soundness of this principle that I advocate a very simple and open method of dressing these cases. I keep the limb in position by means of sandbags and a light weight attached to the foot, while I endeavour to keep the wound aseptic, not by covering it with any form of dressing, but by drainage, and free and constant washing with a 1 to 30 solution of either chloride of lime or carbolic acid. I have found that as long as free drainage was thus maintained that the healthy process of slow granulation and cicatrisation went on without interruption; but when from any cause this was impeded, immediately a rise of temperature indicated that the system was sympathising with the local state.

As some, for whose opinions I have the highest respect, seem to think that the success gained by excision of the hip is at best but a poor one—being barely an escape from death to lifelong deformity and debility—I may be permitted, in conclusion, to refer to the case of W. F., one of my earliest cases, who had his right hip excised when he was eleven years old. Now, when eighteen, he not only walks and runs, but can hop on his right leg, the false joint enjoying flexion, extension, abduction, adduction, rotation, and circumduction. He is in perfect health, and supports himself and sisters as a writing clerk, walking daily a mile to, and same from, his business with perfect ease. His portraits show his state last year (Figs. 3 and 4).