

ART. X.—*On an Unusual Form of Dislocation of the Hip-joint.*

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FROM the absence of any record of such, it is to be presumed that a case similar to that now about to be noticed has not occurred in the practice of any hospital surgeon in Ireland; hence, I feel it to be my duty to put on record the following. Although, for reasons hereafter to be mentioned, the treatment proved unsuccessful, yet the pathologist and surgeon will hail with pleasure any account which will increase the number of recorded cases of hitherto rare lesions; as thus our knowledge of the facts regulating their diagnosis and treatment will be enlarged to the advantage of the public.

W. L., aged thirty-six, was admitted into Steevens' Hospital 6th May, 1864; he was brought in in a state of extreme intoxication; he had been driving a "float," on the fore-part of which he was sitting. He fell off, and was dragged for some distance between the bottom of the vehicle and the ground. He could not at any time give a history of the accident; the meagre account obtained was collected from bystanders. On examination, the left leg was found to be fractured close to the ankle; the condition of the right limb, the subject of this memoir, was as follows:—It was considerably shortened, to the extent of two inches; the foot was everted to an extreme degree; the buttock was flattened; the projection of the trochanter was not so marked as at the sound side; it could be felt in a situation above and behind its usual position; there was a remarkable prominence of the soft parts on the anterior and inner aspect of the thigh; although there was no protuberance to mark its presence, the head of the femur could be felt revolving beneath the hand when the limb was moved; it was situated about two and one-half inches below the anterior superior spinous process—it was not immediately beneath, but lay on a plane very slightly posterior to it. The following measurements were taken:—

From ant. sup. spine of ilium to patella on right side,	. 16 $\frac{1}{4}$ inches.
" " " " left "	. 18 $\frac{1}{4}$ "
From ant. sup. spine of ilium to int. malleolus on right side,	33 $\frac{1}{2}$ "
" " " " left "	35 $\frac{1}{2}$ "
From interclavicular notch to patella on right side, .	33 "
" " " " left side, .	34 $\frac{1}{2}$ "
" " int. malleolus on right side, .	50 $\frac{1}{4}$ "
" " " left side, .	52 "

From symphysis pubis to sacrum round right side, .	. 19 inches.
" " " left side, .	. 18 "
From ant. sup. spine of ilium to (head of femur?) .	. 2 $\frac{1}{4}$ "

Taking into account the shortening, the eversion, and the flattening of the trochanter, every person who saw the case, before actual examination, pronounced that the femur was fractured. On the other hand, there was no crepitus, the head of the femur moved freely in unison with the limb, and the relative position of the trochanter and head of the bone was not disturbed in any way. Hence, the conclusion arrived at after examination was, that it was a case of dislocation of the hip-joint.

On proceeding to reduce the dislocation, the method by manipulation was first had recourse to; in the execution of the required manœuvres, a most extraordinary symptom or phase of the case manifested itself. When the thigh was flexed on the abdomen a distinct "*glug*" was heard, as though the operation of reduction had been successfully completed; but on straightening and drawing down the limb all the symptoms of the ordinary dislocation of the head of the femur on the dorsum of the ilium were found present, viz., shortening, inversion, and the head of the thigh-bone could be distinctly felt in its new position on the dorsum. To effect this change of station it had revolved through the arc of a circle corresponding to the rim of the acetabulum. When the limb was allowed to remain at rest in this new position, the weight of the foot soon rotated the leg outwards, and again we had the original dislocation reproduced. On repeating our efforts the same occurrence took place again and again.

Having failed in the reduction by manipulation, recourse was had to the pulleys, but without any effect further than that already observed—of converting it into a case of dislocation on the dorsum. When the hand was placed on the groin, in the situation occupied by the head of the bone in the primary dislocation, the limb being left to itself gradually rolled outwards, and the head could be distinctly felt rotating forward beneath the hand, until it resumed its original abnormal situation.

On three different occasions the patient was subjected, on the operating table, to our repeated and long-continued efforts at reduction. On each occasion I had the advantage not only of the advice and opinion of my own experienced colleagues, but I was also assisted by the judgment and suggestions of eminent surgeons

connected with other hospitals in this city. Notwithstanding, our efforts were not crowned with success.

The failure must be attributed to either of three causes—viz., mismanagement, fracture of the acetabulum, or laceration of the capsular ligament. With regard to the first, every person who witnessed our operations must have acknowledged that the case received fair play in every way, nor were our efforts relaxed until prudential motives obliged us to desist. I had the advantage of good advice, and did not rely on my own judgment. The limb was pulled in every conceivable direction and manner, and the arrangements for the reduction of dislocation in Steevens' Hospital are, probably, the most perfect in this country. Yet, aided by all the resources of a metropolitan hospital, the reduction was not effected.

There were none of the symptoms of fracture of the acetabulum; there was no crepitus; nor could the limb at any time be drawn down to the level of the sound one. If fracture of the rim of the acetabulum had taken place the dislocation could have been reduced, but it would have recurred again—not so in this instance, as the limb was never drawn down to its proper position.

I am more disposed to account for our failure as follows. The patient at the time of the accident was subjected to great crushing violence, such as would drive the head of the femur either through the acetabulum or the capsular ligament. If it were driven through the latter by an opening just sufficient to permit its passage, or if the ligament was detached from the bone, allowing the head of the bone just room enough to escape from the joint, the edges of the rent would tightly grasp the neck of the bone where it is constricted below the head. Such a state of things would account for our failure, and every symptom of the case; it would account for the anomalous position of the head, above the acetabulum, below the anterior superior spine of the ilium; as in whatever direction it passed out, such it would retain after the laceration; under other circumstances, it would probably have immediately resolved itself into either the ordinary dislocation on the dorsum, or the unusual form on the brim of the pelvis. The occurrence of the secondary dislocation taking place during our efforts at reduction recall to mind Mr. Wharton's case, where, in endeavouring to reduce a dislocation on the dorsum, dislocation took place into the sciatic notch; this occurred more than once in his case. The readiness with which the primary dislocation was reproduced in the case under notice can be fully accounted for on the supposition that the neck of the bone

was grasped by the rent in the capsular ligament so as to prevent the secondary dislocation from being a complete one, by allowing of rotation only to a limited extent over the rim of acetabulum. Owing to the manner in which the neck of the bone would be grasped by the edges of an opening in the ligament and other soft parts about the joint, the limb could not be drawn down to the level of the sound one. I submit that the more extension would be put in force in such a case so much the more tightly would the head of the femur be held by the opening in the ligament.

Several cases are on record of dislocation similar to that now described: so many, that Malgaigne and Hamilton both give this form a place in their description of dislocations of the hip-joint. The former calls it supra-cotyloid, the latter classes it among the anomalous dislocations. It has also been called the dislocation beneath the anterior superior spine of the ilium. I would venture to name it, "the dislocation of the head of the femur on the dorsum of the ilium, *with eversion of the foot.*" Such in reality was the case. Cummins, Morgan, and others, describe similar accidents.

Taking into consideration the secondary dislocation, the case is unique in the form of the consecutive variety. Lente has recorded a case of this very lesion, where, during efforts at reduction, it resolved itself into a dislocation into the sciatic notch. I have alluded to Mr. Wharton's case. Malgaigne has described another.

It will be remembered by the practical surgeon, that eversion can only occur in three forms of dislocation of the hip—in dislocation on the pubis always, in dislocation on the body of the ischium almost always, and in the dislocation upwards now described always. In the first case the limb is either of its natural length or slightly elongated; in the second case it is decidedly elongated; but in the form under consideration there is considerable shortening to the extent of two inches or more—so that this is the only dislocation in which eversion occurs where the limb is shortened. Finally, the symptoms of this dislocation are:—Real shortening; slight abduction; extreme eversion; projection of muscles on the anterior and internal aspect of the thigh; loss of the prominence of the trochanter; flattening of the buttock; and the situation of the head of the bone can be ascertained beneath the anterior superior spine of ilium.