ON
DISLOCATION OF THE FEMUR,
UPWARDS AND FORWARDS,
BENEATH THE CRURAL ARCH.

BY
W. CADGE, F.R.C.S., NORWICH.

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To acquire a knowledge of the entire clinical history and result of individual cases of chronic disease or injury is always difficult and often impossible. From the long duration of their symptoms, or their imperfect recovery, they singly admit of, at most, only a very partial observation; still, when the disease is wide-spread, and examples of it are of common occurrence, this piecemeal observation, though gleaned by many hands and variously recorded, affords, in the end, a tolerably accurate knowledge of the whole course of the malady.

But when, on the other hand, the case is one of bodily injury, of rare occurrence, and though leading, perhaps, to much inconvenience and deformity, does not compromise either life or health, the partial observation too often remains unconfirmed, and the clinical history imperfect.

It is with the view of supplying, in one instance, the last and most important link in such a chain of evidence, that I now submit to the Society a short account of the appear-

ances, living and post-mortem, of an unusual form of dislocation of the femur.

The case will be found very accurately and succinctly described in the twentieth volume of the Society's 'Transactions,' by Mr. Travers, jun., and it is by way of appendix to that paper that these observations are now made.

The history of the case is shortly this :

Edward Micklam was a sailor, æt. 35 at the time of his death. Sixteen years before that event he fell from the rigging of his ship into the hold, striking and injuring his hip in the fall ; after the accident he was unable to rise or move the limb, was carried to his hammock, where he laid for about seven or eight weeks, and then began to use the limb a little. There was no medical man on board, and therefore no surgical treatment was afforded him.

Four months after the accident, Micklam arrived in London and became an in-patient of the Westminster Hospital. It was then discovered that he had sustained a dislocation of the thigh-bone at the hip-joint upwards and forwards, and two or three attempts were made to replace the bone, but without success. He left the hospital and subsequently became, at various times, a patient of several of the most eminent surgeons of London, and, amongst others, of the late Sir A. Cooper, who has mentioned the case in his great work¹ on fractures and dislocations, as an instance of dislocation on the pubes. No further attempts were made to replace the bone, and though the limb was much shorter than its fellow, the patient could move it in every direction a little, and he managed, with the aid of a stick, to walk very well.

Some years after the injury Micklam fell down a flight of stairs and fractured the dislocated femur obliquely, close below the trochanters ; union took place with very little increase of deformity, and he recovered the former limited use of the leg. Having led a very reckless and dissolute life, he died a few years ago of phthisis, while under the care

¹ Fifth Edition, page 95.

of my friend Mr. Taylor, of Ebury Street, who kindly allowed me to remove and preserve the bones.

Appearance of the Body before Dissection.—1. The left leg was fully an inch and a half shorter than the right.

2. The toes were turned outwards, and while the body lay on its back the foot rested completely on the outer border.

3. A large globular bony tumour was seen and felt in the groin close to the superior spine of the ileum.

4. The left buttock was flattened, and the trochanter major was an inch nearer the spine of the ileum than on the sound side.

Dissection.—The head of the femur occupied the interval between the anterior superior and inferior spinous processes of the ileum. The edge of the latter was hollowed out, and new bone deposited in such abundance that it formed a new and complete acetabulum, so complete as to hold the thigh bone suspended after all the soft parts were removed, and make it requisite to saw off a large piece of the new bone in order to set the femur at liberty; indeed it is scarcely possible to witness in

a, new acetabulum; *b*, piece sawn off to liberate head of femur; *c*, old acetabulum; *d*, anterior superior spinous process of ileum.

greater perfection the efforts made by nature for the repair of injury.

The new cavity, thin in its walls and smooth on its outside, was lined by a dense pearly white tissue, which resembled very closely fibro-cartilage, both in its gross appearance and in its minute structure.

The head and neck of the femur were unchanged in form; the former was less even and smooth than usual, but still covered with cartilage.

The ligamentum teres had been torn from its cotyloid attachment at the time of the accident, and its remains were found lying in a deep groove at the bottom of the new acetabulum, one end being firmly fixed to the fossa on the head of the femur.

The edge of the new cavity was connected with the neck of the thigh bone by a thick capsular ligament. The old acetabulum was obliterated, partly by the absorption of its cotyloid margin, by a deposit of new bone, and partly, also, by a mass of dense fibrous tissue.

The rectus muscle, which had been torn from its origin at the time when the injury was sustained, had procured a fresh attachment to the edge of the new cavity. The sartorius was stretched obliquely over the tumour, and the anterior crural nerve curved round its inner side. The gluteus maximus was much wasted, and the gluteus minimus was put rather on the stretch.

It will be at once observed that this case cannot be strictly placed under any one of the four classified forms of dislocation of the thigh as given by Sir A. Cooper.

Of the general correctness of this classification, no surgeon, I apprehend, can doubt; still, as time wears on and experience multiplies, cases come to be recorded in which the head of the bone has assumed some other than one of the recognised positions: in short, it admits of displacement in almost every direction.

This instance approaches most nearly to the dislocation on the pubes; but it would be a paradox to class it as such, for

the head of the bone is not placed on the pubes at all, but on the ileum. Looking at the matter in another and more practical point of view—namely, with reference to symptoms and treatment—the two forms are identical; pathologically they differ; symptomatically they are the same. The specimen I exhibit is not the only one of the kind that exists. In the Museum of Guy's Hospital there is a preparation in which the head of the bone is similarly situated, but the thigh in this instance is inclined more forwards, and the trochanter major has got a bearing on the ileum close above the acetabulum.

A case occurred to Dr. Cummins, and is related by Sir A. Cooper,¹ in which the head of the femur was felt, and seen close to the superior spine of the ileum. There was here shortening of the limb, and eversion of the foot. The reduction of the dislocation was effected on the eleventh day after the injury.

The late Mr. Morgan has also related a case² in which the luxated head of the bone was felt under Poupart's ligament, just inside the superior iliac spinous process. The toes were turned outwards, and the limb was shortened. The bone was returned to its natural position without much difficulty.

Lastly, Mr. Wormald³ dissected a body at St. Bartholomew's Hospital, and found the head of the femur resting on the ileum, between the acetabulum and the anterior inferior spinous process. The leg was slightly shortened, and the toes were everted.

Here, then, are a few particulars of five cases differing slightly from each other, but all possessing in common three unequivocal and diagnostic signs; viz., more or less shortening of the limb, eversion of the toes, and the presence of the

¹ Vide work on Fractures and Dislocations, fifth edition, p. 101.

² Vide 'Guy's Hospital Reports,' vol. i.

³ Vide 'Medical Gazette,' vol. xix, p. 657.

globular head of the femur in the groin. Moreover, the treatment and mode of reduction are nearly the same for all.

In consequence of these points of agreement in the several examples of the displacement, and with the view to rob the subject of some of its complexity, I would, with all submission, propose to substitute for the specific term "dislocation on the pubes," some other; such as "dislocation upwards and forwards," or "dislocation beneath the crural arch;" either of which would comprehend all the varieties characterised by the three diagnostic symptoms I have mentioned; no matter whether the head of the femur be lodged on the ileum (as in the five cases I have described), or on the pubes external to the femoral vessels (its usual position), or on the pubes internal to the vessels, as in a case described by the late Mr. Bransby Cooper.

In conclusion, one practical question suggests itself; viz., was it commendable practice to attempt reduction of the dislocated bone after the lapse of more than four months from the receipt of injury? The majority of surgeons, I suppose, agree in thinking that Sir A. Cooper's limit of eight weeks is too restricted for many cases; and that a rule of practice, based upon the lapse of time merely, cannot be invariably applicable. Dupuytren succeeded in reducing a dislocated hip on the ninety-ninth day; and I may mention that I have myself assisted to reduce dislocations of some of the smaller joints—the thumb and finger, for example—when nearly five months had elapsed, and with perfect restoration of the use of the parts in both instances.

In Dupuytren's case, it should be remarked that the patient was a female, twenty-five years of age, of slender make, and weak health, and that she remained in bed with the limb at rest and in splints, during the interval; whereas in the case before us, the patient was a robust lad, sixteen years of age; he remained in bed only seven or eight

weeks, and then began to use the limb. In the former, the period of growth had passed over, and the reparative powers of nature were probably almost in abeyance, while in the latter, the very reverse in both these particulars obtained.