

From the Department of Surgery of the Extremities, The Centralhospital, Næstved, Denmark. (Chief surgeon: Jørgen Falkenberg, M.D.)

DISLOCATION OF THE UPPER END OF THE FIBULA

By

STEEN CHRISTENSEN

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It is seldom, that one sees dislocation in the superior tibio-fibular joint. It may occur as an isolated injury or combined with fracture of the fibula and with dislocation in the inferior tibio-fibular joint.

An isolated dislocation was first described by *Nelaton* (1874) and a comprehensive review given by *Lyle* (1925) while a detailed description of anatomy, clinical features and treatment was given by *Harrison & Hindenach* (1959) in connection with 5 case reports.

In Scandinavian literature no cases have been reported, and on enquiring at the larger Danish hospitals no cases were found. The lesion is briefly mentioned in the larger text-books (*Shinz et al* (7)). *Lyle* has collected 42 cases from the literature and he concludes that dislocations are directed anteriorly twice as often posteriorly. Upward dislocations cannot occur in an isolated manner but occur with fractures of fibula or dislocations in the ankle joint. Dislocations are not always caused by trauma. Non-traumatic dislocations or subluxations are seen after half leg amputations or in patients with strained ligaments.

In the cases, where the patients are aware of the way in which the trauma occurred, they often say, that they have fallen with one leg extended and the other bent behind it, as may happen to football-players and other sportsmen (1, 8). Parachutists are trained to land with the feet together and the knees slightly flexed. They may be blown sideways, and have one leg forced behind the other. *Lord & Coutts* (4) have investigated 250.000 jumps and found a group of "silent" fractures in the upper third of fibula or less frequently a dislocation of the fibular head.

Some cases occur of multiple lesions and fractures (1). A few cases are reported as nontraumatic, when the patient rose from a kneeling

position (*Klose*) or reached upwards and backwards while standing (*Macklin, Hartmann & Peterson*). Harrison gives an account of an Indian with strained ligaments, whose fibular heads could be moved mediolaterally about half an inch.

CASE HISTORY

A 14 year old girl fell and hurt her left leg and knee. She was unable to describe the way in which she fell, but afterwards she had felt pain and could not extend the left knee. There was no paralysis, but she felt a slight indefinable paraesthesia.

The fibular head was dislocated anteriorly and was more prominent than the right fibular head. X-rays confirmed the dislocation.

Under general anaesthesia the fibular head was replaced with firm pressure and there were no neurological symptoms afterwards.

The joint is variable in form, with the slope of the articular surface of the head of the fibula varying from almost horizontal to steeply inclined to the horizontal.

The stability of the joint depends on the structures between the tibia and the fibula, in the joint and distal to it. The capsule is strengthened by an anterior and a posterior ligament. Below the joint are the interosseous membrane and the ligaments in the distal joint between tibia and fibula.

On the lateral side of the fibular shaft is the musculo-cutaneous nerve, and it is the only structure of interest. In fractures of the shaft and posterior dislocations it may be injured, and two cases are reported with drop-foot (3).

The treatment, often easy, is to apply pressure direct on the fibular heads. It may be necessary to use general anaesthesia and some cases require operative reduction.

Recurrent dislocations may be treated with arthrodesis or temporary fixation with pin or screw.

CONCLUSION

Dislocations of the upper tibio-fibular joint are rare, and anterior dislocation is the most common. The treatment, generally easy, is of closed reduction, but in a few cases open reduction and fixation is necessary.

RESUME

Les dislocations de l'articulation tibio-condylaire supérieure sont rares, la dislocation antérieure étant la plus commune. Le traitement, géné-

ralement facile, consiste en une réduction formée, mais dans de rares cas une réduction ouverte avec fixation est nécessaire.

ZUSAMMENFASSUNG

Verrenkungen des proximalen tibio-fibularen Gelenkes sind selten, und Luxation nach vorne findet sich am häufigsten. Die Behandlung, im allgemeinen einfach, besteht in der unblutigen Reposition, aber in einigen wenigen Fällen ist die offene Einrenkung und Fixierung notwendig.

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