

## ISOLATED TRAUMATIC LUXATION OF THE HEAD OF THE FIBULA

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Isolated traumatic luxation of the head of the fibula is a rare lesion. The lesion is discussed against the background of a diagnosed and treated case.

*Key words:* dislocation; fibula

Accepted 4.i.78

Traumatic luxation of the head of the fibula is a rare lesion, seldom reported in Scandinavian medical literature (Christensen 1966, Gudbjerg 1970, Bacieu et al. 1974).

In major radiological textbooks the luxation is described briefly (Schinz et al. 1952) whereas no reference to the lesion is to be found in ordinary textbooks of surgery.

### CASE REPORT

An 18-year-old girl with no previous history of knee injury fell while playing handball. She hit her left knee and felt a "click". On examination the knee was fixed in 140° of flexion due to pain, and a painful swelling was seen on the lateral side of the knee joint. There was no haemarthron or instability of the joint and no sign of peroneus paralysis. X-ray examination of the knee (Figure 1A and 1B) showed an antero-lateral luxation of the head of the fibula but no fracture. A closed reduction was carried out with local analgesia. An audible crack accompanied the

replacement of the bone. X-ray examination showed that the luxation had been reduced. Full mobilization with support was allowed immediately.

X-ray examination 6 months later showed normal conditions (Figure 2A and 2B). The patient was symptom-free and the clinical examination normal.

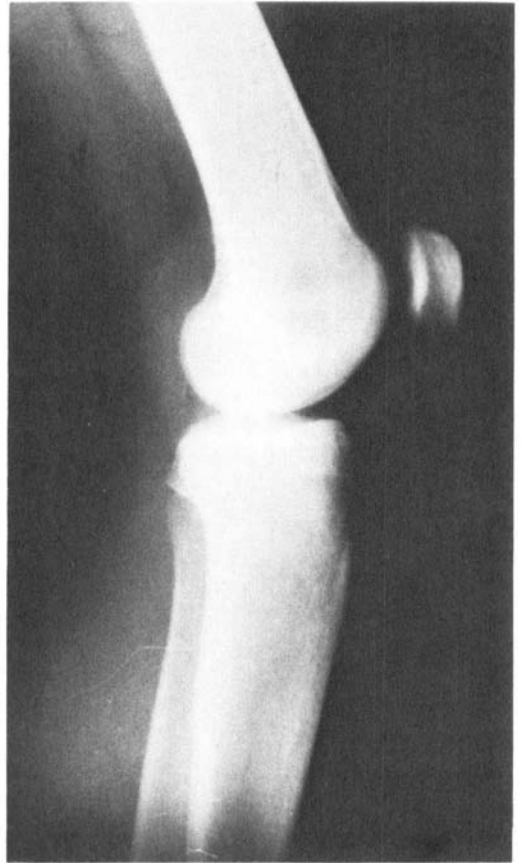
### DISCUSSION

The lesion was first described by Nélaton in 1874. In 1925 Lyle collected 36 cases from the medical literature and described two new ones. Of these 36 cases, 20 were antero-lateral luxations, 12 were posterior and 4 superior. More recently further cases have been documented in the literature (Stratford 1959, Harrison & Hindenach 1959, Christensen 1966, Gudbjerg 1970).

Ogden's material from 1974 is the largest.



*Figure 1A Antero-posterior roentgenogram, showing abnormal prominence of the fibular head.*



*B. In the lateral view, the head of the fibula is seen projecting anteriorly.*

He presents 43 cases: 29 antero-lateral luxations, three postero-medial, one superior luxation and finally 10 cases of subluxation. The latter condition is described as an excessive symptomatic antero-posterior movement without any actual luxation. As is demonstrated in this series antero-lateral luxation is the most frequent type. It was shown that the postero-medial type involves an increased risk of nerve damage and that the proximal or superior type is unusual and has not been observed as an isolated lesion but always in connection with a fracture. According to Ogden most antero-lateral luxations arise during participation in sport, especially after violent twisting movements.

The injury may however arise from direct trauma.

The symptoms consist primarily of pain and tenderness in the region of the head of the fibula. There is often an extension defect and the patient is unable to stand on the leg. Diagnosis can usually be made clinically, but an X-ray examination of both knees is required for verification. The lesion can easily be overlooked if the X-ray picture is not optimal. Treatment is simple and as in the case described here consists of closed replacement of the head of the fibula. Experience with this case suggests that bandaging is unnecessary — despite the statements of other authors.

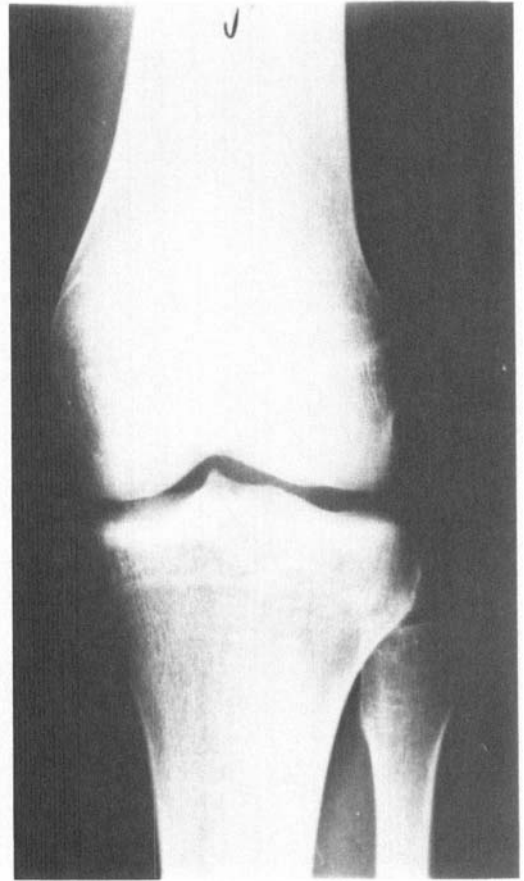


Figure 2A. Antero-posterior view; normal position of the head.

B. In the lateral view; normal position.

## REFERENCES

- Bacieu, Cl. C., Tudor, Al. & Olaru, I. (1974) Recurrent luxation of the superior tibio-fibular joint in the adult. *Acta orthop. scand.* **45**, 772-777.
- Christensen, S. (1966) Dislocation of the upper end of the fibula. *Acta orthop. scand.* **37**, 107-109.
- Gudbjerg, L. P. (1970) Isolated traumatic luxation of caput fibulae. *Ugeskr. Laeg.* **132**, 1726-1728.
- Harrison, R. & Hindenach, J. C. R. (1959) Dislocation of the upper end of the fibulae. *J. Bone Jt Surg.* **41-B**, 114-120.
- Lyle, H. H. M. (1925) Traumatic luxation of the head of the fibula. *Ann. Surg.* **82**, 635-639.
- Nélaton, A. (1874) *Eléments de pathologie chirurgiale*, 2nd ed. Vol. 3, p. 286, Librairie Germer Bailliére, Paris.
- Ogden, J. A. (1974) Subluxation and dislocation of the proximal tibiofibular joint. *J. Bone Jt Surg.* **56-A**, 145-154.
- Ogden, J. A. (1974) Subluxation of the proximal tibio-fibular joint. *Clin. Orthop.* **101**, 192-197.
- Schinz, H. R., Baensch, W. E., Friedl, E. P. & Uehlinger, E. (1952) *Lehrbuch der Röntgendiagnostik*, Vol. 2, p. 1280. Georg Thieme Verlag, Stuttgart.
- Stratford, B. C. (1959) Simple dislocation of the superior tibiofibular joint. *J. Bone Jt Surg.* **41-B**, 120-121.

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