TRAUMATIC FLOATING CLAVICLE

A CASE REPORT

A. S. JAIN

From the Royal Infirmary, Dundee

Dislocation of both ends of the clavicle simultaneously is an injury usually sustained in a major accident; in this unusual case it resulted from a minor fall at home. The mechanism of injury and the treatment are discussed.

Dislocation of both ends of the clavicle is a rare injury. It was first described by Porral in 1831. By 1923 Beckman had reported the sixteenth case; and a seventeenth was added by Gearen and Petty in 1982. In all the cases so far reported the injury has been the result of major trauma, such as a high-speed road traffic accident, a fall from a height, or a very heavy object falling on to the shoulder.

This present report describes a further case of dislocation of both ends of the clavicle, otherwise known as traumatic floating clavicle, double dislocation of the clavicle or pan-clavicular dislocation; unlike those previously described the injury was the result of a minor fall at home rather than a major accident. The mechanism of injury and its treatment are described.

CASE REPORT

A 77-year-old priest, while looking up at his leaking ceiling, slipped on the wet linoleum and fell onto the handle of the drawer of a table.

Clinical examination showed definite bruising over the spine of the left scapula, confirming the point of impact which the patient himself had indicated (Fig. 1), as well as deformity, swelling and tenderness at both ends of the left clavicle. The whole clavicle was mobile and felt as if it was "floating". Radiological examination demonstrated this to be due to dislocation at both ends (Fig. 2).

He was treated conservatively; no attempt was made to reduce the dislocated joints but a broad arm sling was applied and retained for two weeks. Then he was given passive movements followed by active mobilisation under the supervision of a physiotherapist. After six weeks the shoulder had a good range of movement though with

some discomfort; at 10 weeks, the patient was asymptomatic and had regained full and pain-free movement (Figs 3 to 5).

Fig. 1

Bruising at the point of impact on the spine of the scapula.

He was reviewed six months after the injury: the range of movement was normal and the power of the shoulder girdle muscles was full. There was no instability of the dislocated joints on specific testing and there was no local tenderness.

DISCUSSION

Until now all reported cases of total dislocation of the clavicle have been sustained in major accidents. In our patient the injury was the result of a minor fall at home. The probable mechanism is that suggested by Gearen and Petty (1982). The initial impact is on the spine of the scapula, and if this occurs at a precise point, as in our patient, then it does not require great force to dislocate the acromioclavicular joint. Once this joint is dislocated the continuing force carries the clavicle medially and anteriorly leading to dislocation of the sternoclavicular joint.

A. S. Jain, FRCS, Registrar
Department of Orthopaedic and Traumatic Surgery, Royal Infirmary,
Dundee DD1 9ND, Scotland.

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Fig. 2

Both ends of the clavicle are dislocated.

Fig. 3

Fig. 4

Fig. 5

Figures 3 to 5—Appearance and range of movements 10 weeks after injury.

Treatment of this double dislocation is still in dispute; some authors suggest operative treatment while others advocate conservative methods. According to Beckman (1923), operative treatment is technically difficult and the outcome not necessarily favourable. Gearen and Petty (1982) found reduction difficult to maintain despite the use of a plaster cast. Our patient was treated by simple conservative methods, partly because of his age, but also because of the unsatisfactory experience reported by Beckman (1923). A good functional result was obtained, so perhaps this approach should be considered in appropriate cases.

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