

An Unusual Fracture of the Femur at Birth*

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Fig 1 Baby boy aged 1 week with swelling around the left knee

This baby (Fig 1) was an assisted breech delivery at term. Swelling around the left knee was noticed at 1 week. An X-ray revealed a fracture at the lower end of the femur with posterior displacement of the epiphysis (Fig 2, see below).



Fig 2 Lateral X-ray of the left leg at 1 week showing posterior displacement of the lower femoral epiphysis.

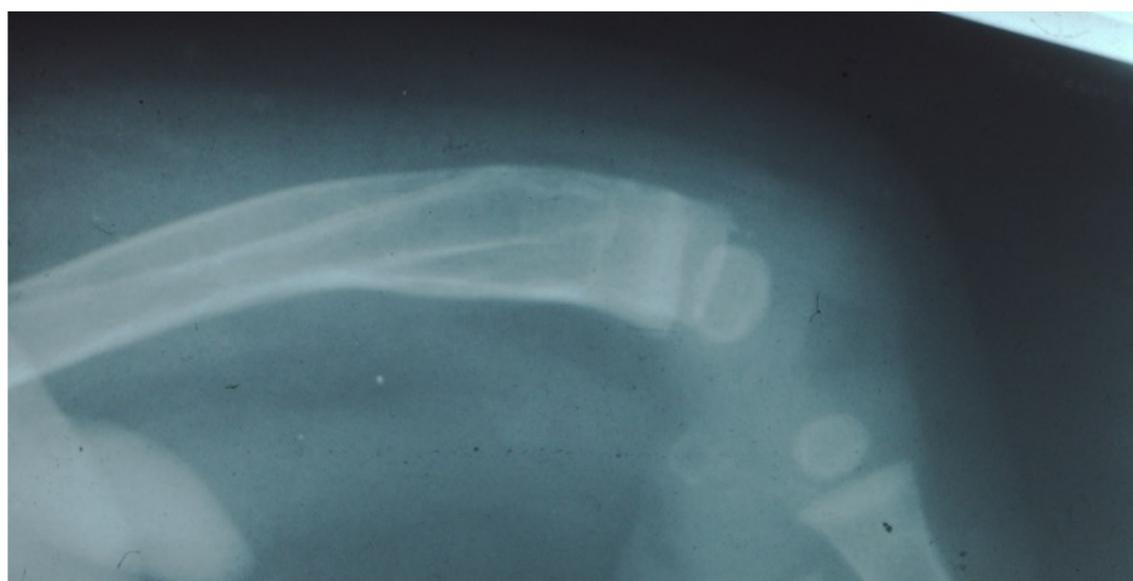
Orthopaedic opinion advised a watch and wait policy. Repeat X-ray at 2 weeks showed callus formation (Fig 3).

A further X-ray at 12 weeks revealed a 'bifid' femur: while the original lower shaft of femur was still clearly visible, a new shaft curving posteriorly was now aligned onto the detached epiphysis (Fig 4).



Fig 3 Lateral x-ray of the left leg at 2 weeks showing callus formation.

Fig 4 Lateral X-ray of the left leg at 3 months showing the original femoral shaft and a new one orientated onto the displaced epiphysis.



* Based on a talk given to the
Perinatal Club, Liverpool, March 1991

An Unusual Fracture of the Femur at Birth (continued)

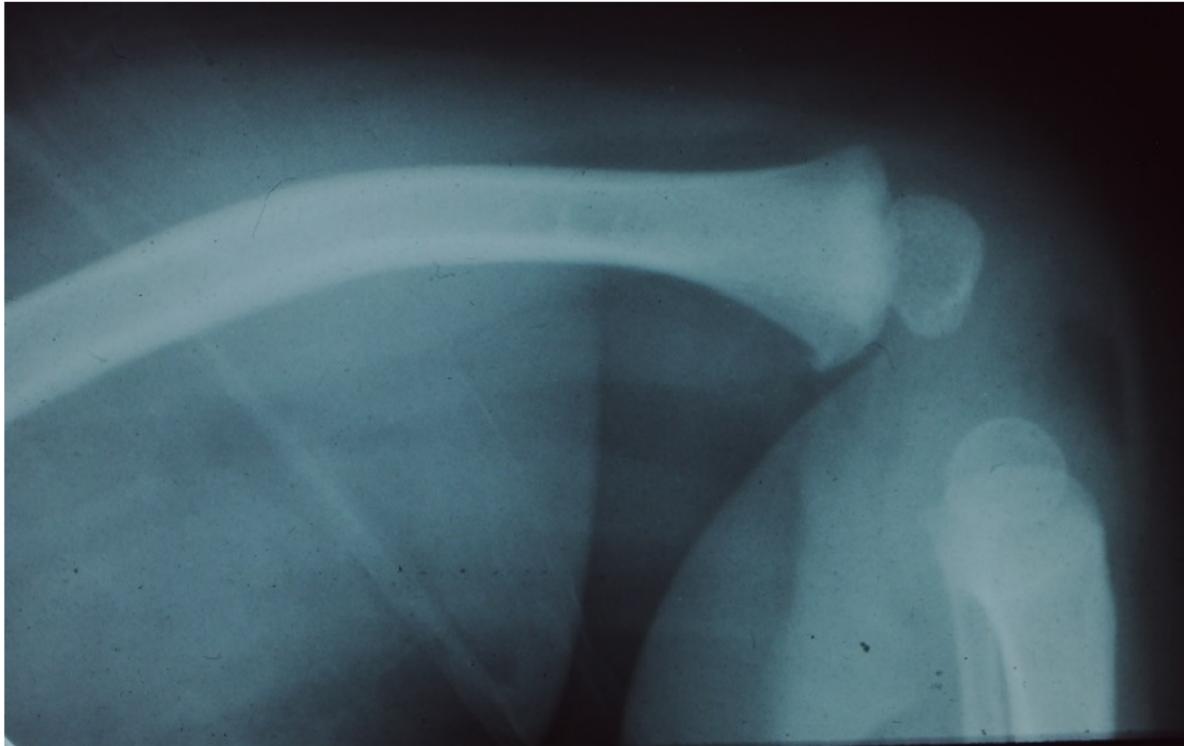


Fig 5 (above) Lateral X-ray of the left leg at 15 months showing posterior curvature of the lower half of the femur.

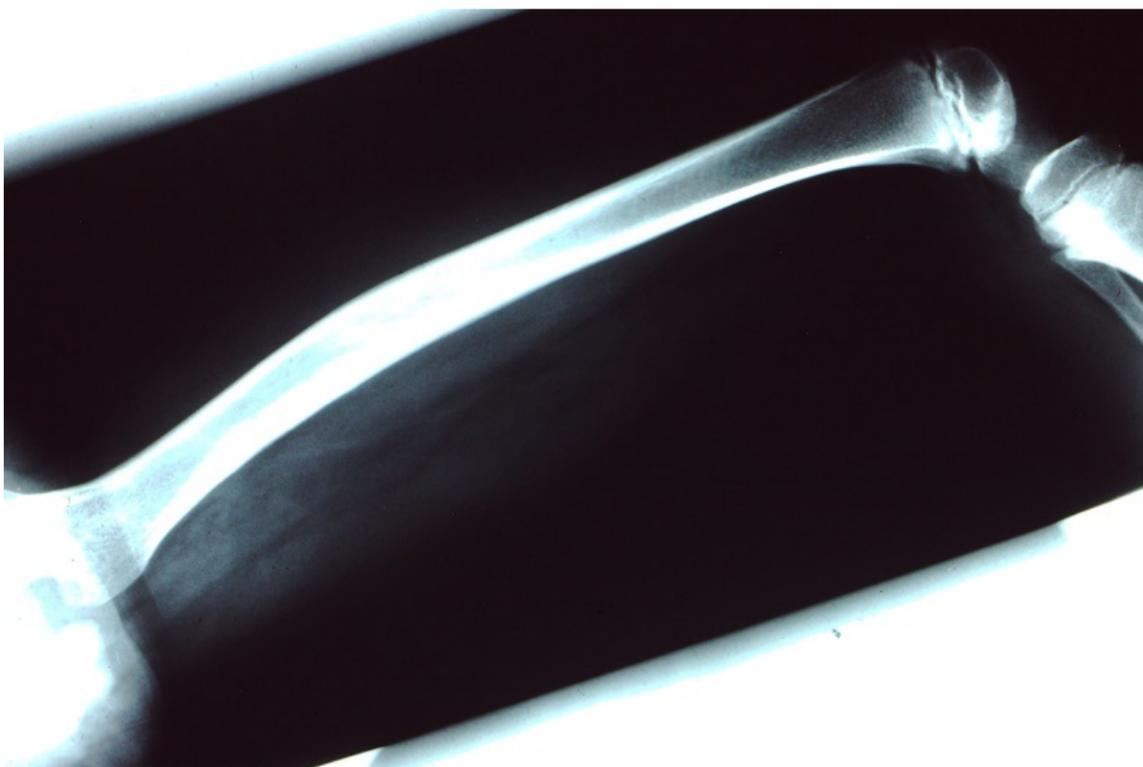


Fig 6 Lateral X-ray of the left leg at 8 years. The posterior curvature of the femur has almost disappeared.

By the age of 15 months the original lower shaft of the femur had disappeared, leaving a new lower shaft curved posteriorly (fig 5). This curvature had almost entirely disappeared by the age of 8 years (Fig 6). Clinically, no abnormality could be detected, both legs being of equal length.

COMMENT

Clearly the fracture dislocation of the lower femoral epiphysis that must have occurred during obstetric manipulation at birth, had been accompanied by a split in the periosteum down the front of the femur, allowing a periosteal sleeve to be displaced backwards with the epiphysis. This had led to the laying down of the new bone and the formation of a second lower-shaft to the femur. These events demonstrate the wonderful capacity of a young body to recover from a serious accident.