

CASE REPORT

Return to elite sport following hip fracture: A case report

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Case report

On the 27th December 2004 a 40-year-old physician and triathlete was on a 40 km cycling training ride, in training for an Ironman Triathlon^{®1} in August 2005. He fell from his bicycle and landed on his right hip.

In the Accident and Emergency Department, the patient was assessed clinically and radiologically. The hip was painful and he was unable to weight bear. Radiographs revealed an undisplaced intertrochanteric proximal femoral fracture. The following day, the fracture was fixed at operation with a sliding hip screw (Fig. 1). The postoperative course was unremarkable. The patient mobilised fully weight bearing and was discharged home on the second postoperative day.

The treating surgeon (DMR, himself the chairman of a triathlon club) provided detailed advice regarding rehabilitation. The skin clips were removed 2 weeks following surgery, and the following day the patient commenced swimming and using an

exercise bike in the gym. Over the next month, he gradually increased the level and duration of his daily exercise: with swimming; exercise bike or cross training in the gym; and progressing back to his bicycle. At 1 month following surgery he cycled the route on which he sustained the injury. At 2 months, he was able to spend a short holiday in the Lake District, with long mountain walks in the snow of up to 8 h. Running on a treadmill commenced at 9 weeks after the operation. Subsequently, training progressed to regular cross country runs, long cycle rides and swims.

On August 18, 2005, the patient successfully completed the Ironman[®] in Sherbourne, Dorset (3.8 km swim, 180 km cycle and 42 km run). He

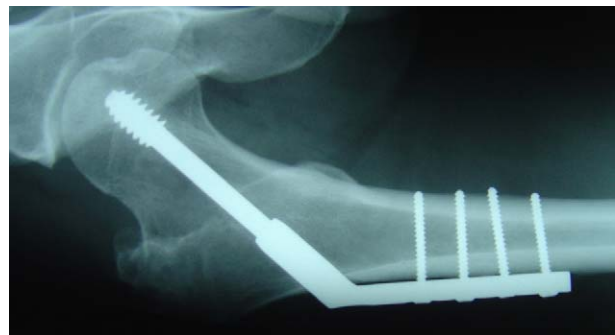


Figure 1 AP radiograph of the sliding hip screw.

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¹ Ironman Triathlon and the M-dot are registered trademarks of the World Triathlon Corporation (WTC).

completed the competition in 12 h 46 min (swim 1 h 22 min, cycle 7 h and run 4 h 13 min). His overall place was 533 out of 1135 finishers, with 93 who did not finish. His placing on the run was 319/1135.

The patient recounts: 'I had no trouble at all from my hip and afterwards it was the other hip the hurt a little! Thanks for the help. There was no way I was not going to attempt the Ironman,[®] I had invested too much energy in it. Although I went back to training early I did not push the running and at no time during training did I experience any pain in the hip, just mild stiffness.' He has since completed a cross-country marathon.

Discussion

A Pubmed search combining 'return to elite sport' and 'hip fracture' (and all other similar combinations) reveals no reported cases of elite sporting performance following hip fracture. Habernek

et al.¹ describe a series of 31 sports related proximal femoral fractures. The mean age of these patients was 41 (i.e. the same as our patient), but these were not elite athletes. Thus, in their series, average hospital stay was 13 days; time off work was 14 weeks; and return to sporting activity was 6 months. In the case we describe, the patient was an elite athlete and returned to elite sport successfully after this injury.

As Orthopaedic surgeons, we manage orthopaedic conditions in an aging healthy population, who want to continue sport as they age. This case demonstrates what is possible after a hip fracture.

References

1. Habernek H, Schmid L, Frauenschuh E. Sport related proximal femoral fractures: a retrospective review of 31 cases treated in an eight year period. *Br J Sports Med* 2000;34:54–8.