

## Case report

# Late symptoms after hip fracture with displacement of the lesser trochanter – a case report

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A 61-year-old woman suffered an intertrochanteric hip fracture involving the lesser trochanter (Evans type IV) after falling down a staircase. Open reduction and internal fixation was done the day after, with a dynamic hip screw system (DHS) (Figure 1). No effort was made to fixate the lesser trochanter. A few days later, she fell in the hospital and was found to have an undisplaced fracture of the greater trochanter on the same side. Reoperation was not considered and the patient was discharged from the hospital. She returned after 4 days because of severe swelling of the lateral thigh, which was thought to be an infection. Evacuation of a hematoma was done by open surgery, but no

growth of bacteria was found. The wound healed, however, the fracture dislocated and reoperation with a new position of the plate was necessary. Postoperatively, the patient improved, walked with two crutches and had only minimal pain. About 2 months later, she suddenly developed intense pain in the groin. The radiographs were unchanged, but an MRI showed that the lesser trochanter compressed the femoral nerve and vessels proximal to the inguinal ligament (Figure 2). At surgery, we found that a fragment with sharp spikes compressed the vessels and femoral nerve.

Postoperatively, the groin pain disappeared immediately, and the patient was discharged from



Figure 1. A 61-year-old woman with an intertrochanteric hip fracture involving the lesser trochanter (Evans type IV) after open reduction and internal fixation with a dynamic hip screw system.

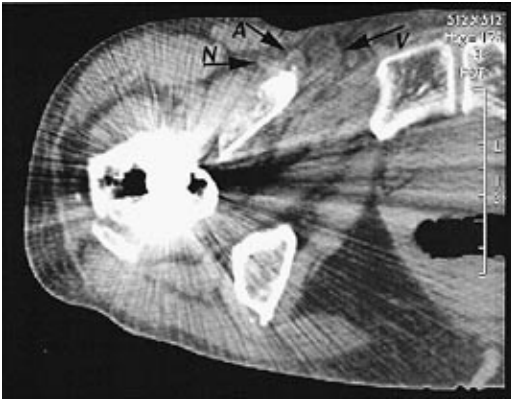


Figure 2. MRI showed that the lesser trochanter compressed the femoral nerve and vessels proximal to the inguinal ligament.

the hospital 4 days later. When seen 3 months later, she had slowly improved with rehabilitation and no longer groin pain.

In hip fractures, the lesser trochanter is usually not fixed, and complications are rare. There are a few case reports on injury of the deep femoral

or common femoral artery (Lazarides et al. 1991, Karanikas et al. 1993), but hardly any about complications from acute pressure on the femoral nerve, as in our case (Rokito et al. 1993). Such complications are usually related to pressure from the avulsed lesser trochanter, but may also be due to a protruding screw if the fragment is fixated (Lazarides et al. 1991, Karanikas et al. 1993). MRI is helpful in determining the exact location of the fragment.

Karanikas I, Lazarides M, Arvanitis D, Papayanopoulos G, Exarchou E, Dayantas J. Iatrogenic arterial trauma associated with hip fracture surgery. *Acta Chir Belg* 1993; 93 (6): 284-6.

Lazarides M K, Arvanitis D P, Dayantas J N. Iatrogenic arterial trauma with hip joint surgery: An overview. *Eur J Vasc Surg* 1991; 5: 549-56.

Rokito S A, Simon M, Koval K J, Zuckerman J D. Symptomatic displacement of the lesser trochanter following trochanteric fracture fixation. *Bull Hosp Jt Dis* 1993; 52 (2): 52-4.