

Oral presentation

## Secondary neurological deficits after a conservatively treated U-shaped sacral fracture

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### Introduction

We present a case report of a rare type of sacral fracture who initially had no neurological deficits in the lower extremities, but later on, during fracture healing developed progressive neurological deficits.

### Methods

The patient, a 60-year-old man, was conscious and haemodynamically stable at admission to the hospital after a car accident in 80 km/h. No neurological deficits were found. CT-scan showed a U-shaped fracture of the sacrum in the S2 level and bilateral fracture of the transverse processes in L5. The pelvic ring was intact. The fracture was thus treated conservatively, since there was insignificant dislocation and no neurological symptoms.

### Results

At 1-year follow up he presented reduced sphincter tonus, but no micturition problems. He reported pain during sexual intercourse and reduction in muscle strength in both lower extremities and bilateral sensibility reduction in the lower legs and feet were documented. At the 3-year follow up the patient reported intensification of the pain in the lower legs and feet in addition to faecal incontinence. Plain x-ray radiographs showed the fracture healed in a slight kyphosis and a large amount of callus of the lateral masses. CT-scan revealed bony obstruction of the S1 and S2 root canals and ossification between L5 transverse processes and lateral masses of the sacrum bilaterally.

### Conclusion

Our case demonstrates a course that is not reported in the literature, describing late debut and progression of neurological deficits after a conservatively treated lumbo-sacral dissociation. The symptoms are most likely result of the excessive ossification in the fractured sacral foramina, the central canal, and ossification between the L5 transverse processes and the sacral lateral masses. The case demonstrates the importance of close and long term clinical follow up and the need for longitudinal clinical studies to evaluate the natural course of sacral fractures.