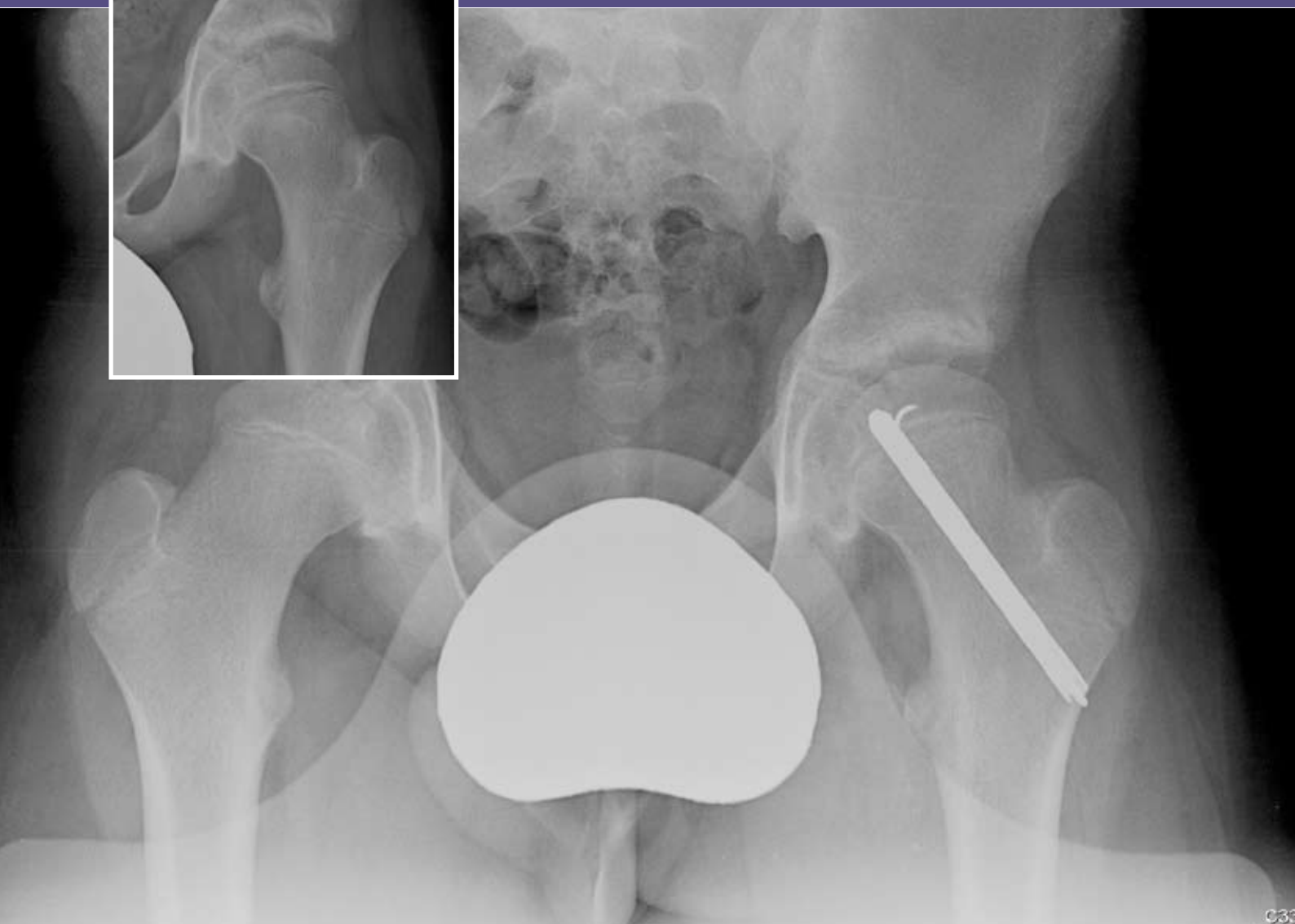


Case Report

Hansson Pin Pediatrics

Slipped Capital Femoral Epiphysis



Case Report

Hansson Pin Pediatrics

Patient's injury

Slipped capital femoral epiphysis (SCFE)

Equipment

Hansson pin system

Surgeon

**Mr Philip Sauvé,
MBBS MRCSEd**

**Mr RH Richards,
FRCS**

Queen Alexandra Hospital,
Portsmouth, UK



Background information

A thirteen year old male experienced mild hip pain for approximately four weeks prior to an injury playing football. By the time of presentation to the orthopaedic department the boy had difficulty in weight bearing on the affected limb. Pain was felt in the groin and knee. Clinical evaluation revealed that the boy was overweight and other than external rotation of the leg no deformity was noted about the lower limb. Hip movements were restricted because of pain yet knee movements were normal. The limb was neurovascularly normal. Anteroposterior and frog lateral plain radiographs demonstrated a slipped capital femoral epiphysis. The radiographs demonstrated Tretthowan's line passing just above the head on the affected side and a mild chronic slipped epiphysis.

Choice of equipment

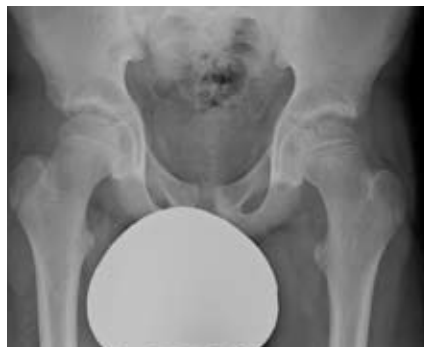
Following analgesia and strict bed rest the epiphysis needs to be urgently stabilized in situ whilst preserving the epiphyseal blood supply. The Hansson pin is a smooth pin which utilises a hook which can be deployed following insertion in order to fix the device proximally in the epiphysis. The femoral neck is therefore still able to undergo longitudinal growth since no 'threads' cross the physis.

Procedure

Under general anaesthetic the patient was positioned supine with minimal traction applied to the affected limb. A guide wire was passed, under image control, up the femoral neck and into the head so that it engaged perpendicular to the epiphysis on both the anteroposterior and lateral views. This means that the entry point was more anterior in the neck than when fixing an intra-capsular fracture in an adult. Using a protective sleeve, a cannulated drill was passed over the guide wire up to the subchondral bone. A smooth Hansson pin was then inserted. The pin is 10-15mm proud of the lateral femoral cortex to allow growth of the femoral neck. Using the introducer the hook was deployed into the epiphysis ensuring that it did not enter the joint. The introducer and guidewire were removed and the wound closed. The patient was mobilised on day one post surgery, touch weight bearing for six weeks. Admission for prophylactic pinning of the contralateral side was then arranged.

Results

Post operative plain radiographs show no further displacement of the slipped physis and early remodelling at the superior aspect of the physis.



AP radiograph hips and pelvis



Frog lateral hips

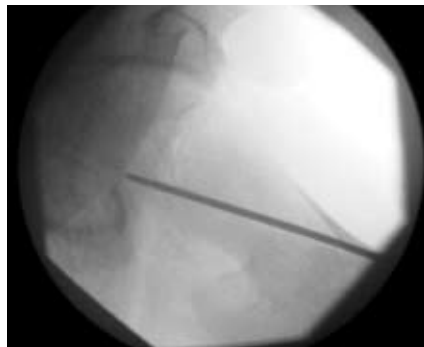


Image guided placement of guidewire



Image guided drilling



Image guided insertion of Hansson pin



AP hips at 6 weeks following surgery



Frog lateral at 6 weeks following surgery

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