

Complication of a Bernese femoral head volume reduction osteotomy for Perthes disease

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1

Femoral head volume reduction osteotomy

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- described by the Bernese team of **Siebenrock** et al.
- **indication:** severe asphericity of the femoral head with lack of containment and hinged abduction
- **cause:** Perthes disease or aseptic necrosis after reduction of congenital dislocation of the hip or femoral neck fracture
- need for surgical dislocation of the hip after trochanterotomy and dissection of a wide retinacular flap as described by **Ganz**
- usually followed by a pelvic osteotomy

2

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Ganz approach for SCFE

3

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1st case: aseptic necrosis after femoral neck fracture

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5

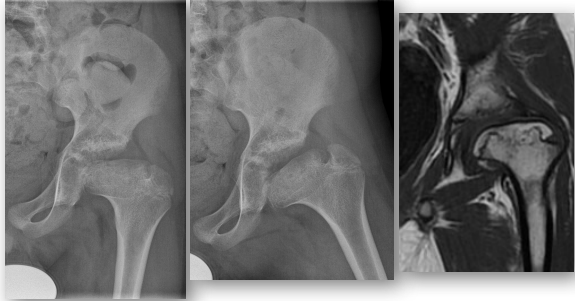
2nd case: sequelae of untreated Perthes disease

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- K, born 13.07.2001, sequelae of untreated left hip Perthes disease Stulberg IV
- 40% uncoverage with hinged abduction
- sphericity index of 46 %
- painful abduction and internal rotation
- preoperative hip mobility:
90° flexion, 20° abduction,
-10° internal rotation and 40° external rotation

6

preoperative x-rays and mri



7

peroperative fluoroscopy and x-ray on po day 5 after slip and fall



8

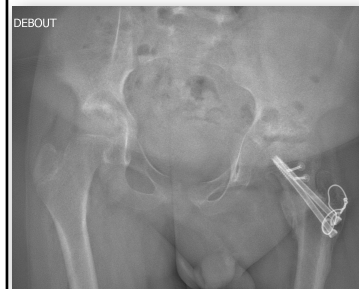
Fixation with cannulated screws and Orthofix EF



- EF removal after 2,5 month and progressive weight bearing

9

1 year po

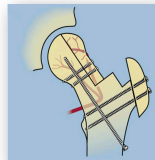


- No epiphyseal necrosis
- Painless walking with moderate Trendelenbourg
- Sphericity index 69%
- 17% uncoverage
- mobility :
100° flexion,
45° abduction,
20° internal and external rotation
- LLD 2,4 cm > contralateral physiodesis

10

Conclusions

- the absence of epiphyseal necrosis despite the large displacement of the fracture is due to the wide dissection of the retinacular vessels during the **Ganz** approach
- **Paley** advises a preventive fixation of the femoral neck with a cannulated screw
- salvage surgery to reserve for symptomatic cases with severe asphericity



Thank you

11