

Introduction

Bilaterality of slipped capital femoral epiphysis is reported in 18 – 50% in literature [1], whereby sequential occurrence is more often seen than simultaneous SCFE. Almost 50 – 60% of children with bilateral SCFE presents a simultaneous involvement but they are often stable.

In literature as well as in our database we could not find any case which should a bilateral, simultaneous, acute on chronic, unstable slipped capital femoral epiphysis.

We would like to present such a case which we recently treated.

Methods

A 15 years old adolescent, African origin, addressed by the family doctor, with bilateral inguinal hip pain since 2 - 3 months showed an acute pain exacerbation after weeks of physiotherapy without pain relief. The clinical examination showed a painful, bilateral reduced flexion, internal/external rotation of 70-0-0°, limited abduction. Radiological assessment presents a bilateral severe slipped capital femoral epiphysis (Figure 1). Based on that we performed a bilateral modified Dunn procedure. The more severe SCFE was operated as first case. The contralateral side was temporary fixed with a k-wire and was definitively treated at the fifth postoperative day.

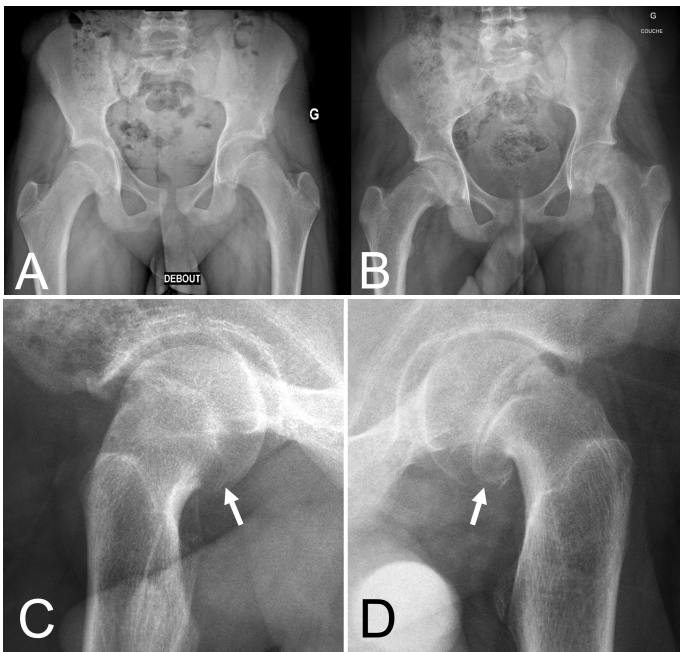


Figure 1. (A) antero-posterior radiograph of the pelvis one year before symptoms, which shows already at the right side signs of SCFE (external x-ray) (B) x-ray at time of acute on chronic symptoms. (C/D) Lauenstein view right and left with metaphyseal callus formation (arrows) and bilateral severe slipped epiphysis.

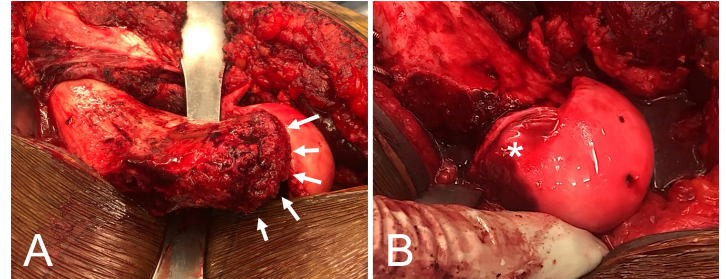
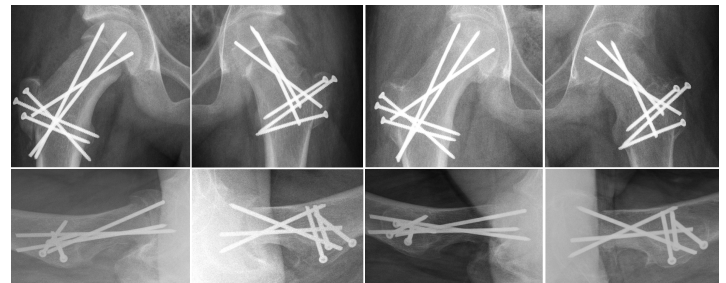


Figure 2. Intraoperative situation during modified Dunn procedure. (A) The huge callus formation of the metaphysis (arrows) was resected to allow tension free refixation of the epiphysis with the retinacular vessels (asterisk). (B) After the refixation, the epiphysis showed a good perfusion.



Postoperative x-rays

Followup 5 months

Figure 4. correct postoperative position of the epiphysis and osteosynthesis material one week at the left side and one day postoperative at the right side. The followup at 5 months shows no signs of secondary displacement, healing of trochanter osteotomy and signs of inactivation osteoporosis but no signs of osteonecrosis.

Results

Intraoperatively the typical antero-superior chondrolabral lesions could be seen. The hips showed a hinged abduction. The epiphysis was in both hips unstable. Callus formation of the metaphysis was visible and reduced during modified Dunn procedure to reduced tension of the vessels (Fig. 2). On both sides the epiphysis was vascularized before and after reduction and showed bleeding after we performed a drill holes at the level of the epiphysis. Intraoperatively an impingement free range could be obtained. The fifth months follow-up showed a radiological and clinical good evolution (Fig. 3).

Conclusion

This patient is the first case in which we see a bilateral, simultaneous, unstable, slipped capital femoral epiphysis treated with the modified Dunn procedure. Long-term follow-ups and evaluations will show us how he will live with his hips regarding avascular necrosis, quality of life, pain and range of motion.

References

- 1 Loder RT et al. The demographics of Slipped Capital Femoral Epiphysis - an international multicenter study. Clin Orthop Relat Res 1996 Jan;(322):8-27.
- 2 Loder RT and Skopelja EN. The Epidemiology and Demographics of Slipped Capital Femoral Epiphysis. ISRN Orthopedics 2011 Sep 21.