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Letters should normally be under 300 words in length, double-spaced throughout, signed by all authors and fully referenced. The edited version will be returned for approval before publication.

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The management of slipped capital femoral epiphysis

Sir,

We read with interest the article by Uglow and Clarke¹ in the July 2004 issue entitled 'The management of slipped capital femoral epiphysis'. While we found most of the article to be an excellent review and discussion, we must take exception to the recommended management of the unstable slipped capital femoral epiphysis as described, as well as the proposed treatment algorithm.

Initially, the authors make references to Jones (personal communication) as the basis for delaying definitive treatment for severe unstable slipped capital femoral epiphysis for three weeks while temporising the patient in skin traction and bed rest. Apparently, the authors feel that this time period may allow some gradual reduction of the deformity that may facilitate *in situ* screw fixation, as well as allow resolution of the compromised blood supply, thereby minimising the potential for avascular necrosis. Finally, they appear to recommend osteotomy of the femoral neck for those patients whose slipped epiphyses do not reduce adequately during the three-week window.

We are unclear from where this recommendation arises, as we are not aware of any literature that supports it, nor have we ever heard this expressed previously in any other monograph or review article. Our experience in the management of 75 to 100 patients annually with a stable or unstable slipped capital femoral epiphysis has not shown such management to be realistic, necessary or beneficial. In the vast majority of unstable slipped capital femoral epiphyses, urgent but not emergency management is appropriate. The deformity in such patients generally will reduce to the stable position with general anaesthesia and simple positioning of the patient on the fracture table or radiolucent table of choice. In those patients whose slipped epiphyses do not reduce significantly, we have found that *in situ* pinning can be performed in the presence of almost any grade of displacement. Certainly, routine femoral neck osteotomy as recommended by the authors for those that do not reduce to grade I or grade II is

rarely necessary in our experience. Subsequent intertrochanteric flexion derotational osteotomy may be performed at a later date in those patients requiring improved mechanical alignment. While this procedure will not achieve the same level of correction, it is safer as far as risk of avascular necrosis is concerned. Complete correction, while desirable, may not be necessary, as we know from the long-term natural history study generated at the University of Iowa.² Finally, later surgical dislocation and femoral neck reshaping as described by Ganz et al³ may be beneficial in some patients.

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J. F. MOONEY, III, MD
Children's Hospital of Michigan,
Michigan, USA.

D. A. PODESZWA, MD
Children's Medical Center Dallas
Dallas, USA.

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Author's reply:

Sir,

The authors would like to thank Drs Mooney and Podeszwa for their interest in our article and for their comments regarding the management of a grade III slipped capital femoral epiphysis. The number of patients to which this discussion refers is remarkably few. All patients with grade I and II slips will be treated with *in situ* screw fixation, as will the vast majority of grade III cases. We have tried to address the management of the few patients with a severe acute displaced grade III slip.

Patients presenting within the first 24 hours will proceed to the operating theatre and appropriate repositioning on the operating table will allow screw fixation in the vast majority. If screw fixation is not possible without penetration of the posterior cortex of the neck and subsequent damage to the vascular supply, then the operating surgeon must choose between a cuneiform osteotomy immediately or attempting a trial of traction as described by Dietz.¹ Radiographs may be taken during the period of traction and if any improvement is observed, then screw fixation can be undertaken without further delay. If no improvement occurs until the third week, such that screw fixation *in situ* is deemed not possible, then a cuneiform osteotomy of the neck would be performed.

As Drs Mooney and Podeszwa stated, "*in situ* pinning can be performed in the presence of almost any grade of displacement". There are, on occasion, cases that cannot be treated with *in situ*