Management outcome and the role of manipulation in slipped capital femoral epiphysis

To the Editor:
We read with interest the article by Lim et al.1 The authors concluded that manipulation is not recommended in patients with slipped capital femoral epiphysis, because of a higher risk of avascular necrosis. However, no significant differences in outcome or complication rates were shown in their study for those treated with fixation alone or manipulation with fixation. Patients with acute unstable slips undergoing manipulation and fixation within 24 hours have been reported to have better, comparable, or worse results than those undergoing fixation alone or delayed fixation. More randomised controlled trials are needed to answer this question.

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REFERENCES

Authors’ reply:
Safety and timing are at stake in acute unstable slipped capital femoral epiphysis. The opinions on manipulation are divergent. Despite favourable results, there is an increased risk of avascular necrosis with manipulation.1 Preoperative gentle straight-leg traction or Russell traction and intra-operative positioning on a traction table have been reported to sufficiently reduce such acute unstable slips.2–4

24 to 72 hours after symptom onset is considered a possible ‘unsafe window’. The risk of avascular necrosis may increase when surgery is performed during this period, because of increased inflammation and synovitis.5–6 Surgery should be performed either within 24 hours or a week after the onset of pain. Early surgery within 24 hours may help improve femoral head blood supply, according to an angiographic study.7

In our study, there was no significant difference in outcome between patients with manipulation and those with preoperative traction and intra-operative positioning. The change in Southwick’s head-shaft angle in both groups was similar. We consider manipulation not necessary, especially when the risk of avascular necrosis is high. A short course of preoperative traction and intra-operative positioning, followed by percutaneous pinning with a single screw, afford the most safety.

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