

## Posterior Cruciate Ligament Avulsion In Paediatric

Azman MH, Lim LJ, Safian MF, M Arifullah, Nor MN

### ABSTRACT

Posterior cruciate ligament injury in paediatric is a very rare incident and challenging to treat surgically. The diagnosis quite often missed in clinical practice. Surgical management has been recommended with favourable outcome<sup>1</sup>.

### CASE REPORT

We are reporting a case of a 12 year-old Malay boy, who was presented to us after 4 days of trauma with complaint of left knee pain and swelling. Upon assessment the left knee was swollen with maximum tenderness over the popliteal fossa, the joint motion was limited. Posterior drawer test was grade 3 laxity and anterior drawer test negative. Xray done show PCL attachment avulsion (Figure 1).

Preoperatively, considering patient's paternal height at 185 cm and current patient's height that is 150 cm, the bone's growth is still progressing and we planned for posterior approach and open reduction with screw fixation and to avoid the physeal plate.

He then underwent open reduction and screw fixation of the avulsed PCL attachment. Two cannulated screw 4.0 mm was inserted through posterior knee approach parallel to the physeal plate with image intensifier guide. Post-operative x-ray as shown in (Figure 2).

During the 6 months follow-up, wound showed good healing with no signs of infection. Range of motion of his left knee is 0-120° with no instability. Radiograph showed in-situ implant with no avulsion or shortening over the proximal tibia of affected limb.



Figure 1



Figure 2

### DISCUSSION AND CONCLUSION

This case possessed a great challenge as this injury is very rare and near to the physis plate. Quite numbers of studies had been done to evaluate the outcome of different surgical technique in treating this condition. In case of open physis, open reduction and internal screw fixation for avulsion fractures and PCL reconstruction seems to be possible without causing growth disturbance<sup>2</sup>. However, long-term impairment and close monitoring should be recommended.

### REFERENCE

1. Ugutmen E, Sener N, Eren A et al (2006) Avulsion fracture of the posterior cruciate ligament at the tibial insertion in a child: a case report. *Knee Surg Sports Traumatol Arthrosc* 14(4):340–342
2. Helmut W, Sophie J, Michael N, Tanja K et al (2019) Surgical treatment of posterior cruciate ligament lesions does not cause growth disturbances in pediatric patients. *Knee Surg Sports Traumatol Arthrosc* 27, pages 2704–2709 (2019)