

Bilateral Posterior Cruciate Ligament Avulsion Fracture

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INTRODUCTION:

Posterior cruciate ligament (PCL) is a strong stabilizer of the knee. General PCL injuries are reported between 3-38% of acute knee injuries¹. Bilateral PCL tibial avulsion fracture is extremely rare case. Extreme anterior force to the proximal tibia of a flexed knee results in this injury.

REPORT:

A 37-year-old policewoman had an alleged fall when coming down from stairs, with both knee flexed and hit over the ground. Post trauma she sustained pain over bilateral knee and was not able to ambulate. Clinical examination noted effusion over bilateral knee, with tenderness over posterior knee region on palpation. Bilateral knee x-rays revealed bilateral PCL avulsion fracture.

She was counseled for open reduction and screw fixation of bilateral PCL avulsion fracture; however she not keen for operative intervention. She was put on a PCL brace bilaterally for 12 weeks duration.

During her subsequent follow up, pain over knees improved with the brace. Clinical examination reveal she still had mild tenderness over popliteal fossa region. Her range of motion of knees ranged 20 – 120 degree.



Figure 1: Lateral view left knee xray showing PCL avulsion fracture



Figure 2: Lateral view right knee xray showing PCL avulsion fracture.

There are many treatment options described for PCL avulsion fracture, depending on the type and size of fracture, amount of displacement, comminution and concomitant injuries. Operative management should offered to young and active patients to prevent nonunion and instability.

Non-operative management of PCL avulsion fracture, involves immobilization with a PCL brace and rehabilitation. Complications associated with non-operative treatment include restricted range of motion of knee, residual laxity, osteonecrosis and nonunion.

CONCLUSION:

PCL avulsion fractures must be treated in timely fashion in young patients to prevent further devastating complications and degeneration of the knee joint.

REFERENCES:

1. Katsman, Anna et al. "Posterior Cruciate Ligament Avulsion Fractures." *Current reviews in musculoskeletal medicine* vol. 11,3 (2018): 503-509. doi:10.1007/s12178-018-9491-2