INTRODUCTION
Patella is a sesamoid bone. Ossification of the immature patella starts at 3 to 6 years of age. So, the incidence of patella fracture in pediatric patient is low. However patella sleeve fracture is the most common patella fracture encountered in paediatric population. It is easily missed even with plain radiograph.

CASE REPORT
We present a case of a 10-year-old boy who presented with left knee pain after fall from stairs and landed to ground in kneeling position. Post trauma, patient unable to ambulate, unable to flex and extend the left knee. Clinical examination notice extension lag of 30 degrees. Plain radiographs of left knee, showing patella alta and small distal fracture (figure 1). The injured knee had an Insall-Salvati ratio of 2.34 compare with 1.09 for the contralateral knee. After 4 days, patient underwent patella tendon tenodesis. During the operation, it was found the patient got avulsion fracture of the inferior pole of patella. Tenodesis was done by using Ethibond suture with Krowkow method. The Insall-Salvati ratio of injured knee post operation is 1.13. Post operation, he was put on a cylinder cast for a total of 6 weeks. Subsequently he was started on physiotherapy. Three months after injury, patient had achieve union and had an acceptable active range of motion of 15° to 90° in flexion.

DISCUSSION
Patellar fracture in skeletally immature patients is uncommon. It is because secondary ossification of the patella occurs at 5 to 6 years of age\(^1\). The immature patella is surrounded by a thick layer of protective cartilage\(^1\). It is cause by rapid and forceful extension force of the knee quadriceps\(^2\).

Sleeve fracture is classified according to its location. Grogan et al. described 4 patterns of avulsion (sleeve) fractures, inferior (acute injury); medial (associated with lateral dislocation of patella); lateral (caused by repetitive tensile pull from vastus lateralis muscle) and superior which is the least common\(^3\). It can be difficult to diagnose in view of radiologically unable to visualized fragment or small fragment. The fragment is mainly composed un-ossified peripheral cartilage\(^1\).

Surgical intervention for severely displaced sleeve fracture is required to restore the extensor mechanism. The indication is displacement more than 2mm with lost of extensor mechanism\(^3\).

Avascular necrosis of the patella is a well known complication. It is because the entire blood supply of the patella comes from the anterior surface of the distal pole, with essentially no supply from the medial, proximal, or lateral patellar margins. So sleeve fracture of the anterior and distal pole will cause the avascular necrosis over the proximal pole. Fortunately, this does not occur in this case.

CONCLUSION
A patella sleeve fracture can occur in paediatric patient. It may easily be missed on plain radiograph. Radiographic parameters should be carefully evaluated in suspicious cases. For undisplaced fractures, conservative management usually produces good outcome. For severely displaced fractures, early surgical intervention can achieve good results and early mobilization.

REFERENCE