



PATELLECTOMY FOR COMMINUTED PATELLA FRACTURE – CASE STUDY REPORT

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Article Info	ABSTRACT
<p>Received 15/10/2017 Revised 27/11/2017 Accepted 02/12/2017</p> <p>Key words: Patellectomy, Patella fracture, Comminuted fracture, Osteoarthritis, Knee stiffness.</p>	<p>Largest sesamoid bone with a several number of functions is the patella. The main function of patella includes extension of knee and preventing knee joint form trauma by acting as a shock absorber. It also acts as a lubricator by nourishing the articular cartilage of the distal femur. Among all skeletal injuries, patella fractures accounts for about 1% in both children and adults. The reason behind the patella often get injury is, it is present in the subcutaneous region making it more prone to injury. A 18 years old male patient was brought to male surgical ward with complaints of pain and swelling of left knee, bleeding in the knee region due to accidental fall. On examination swelling and bleeding of injured area was seen. Though patellectomy is the only best approach for treating comminuted fracture of patella, future risks of fracture, and complications like knee stiffness, extensor weakness and osteoarthritis may be reported. Thus, the patient should be involved in decision making for better therapeutic approach and better life-style of the patient.</p>

INTRODUCTION

Largest sesamoid bone with a several number of functions is the patella[1]. The main function of patella includes extension of knee and preventing knee joint form trauma by acting as a shock absorber. It also acts as a lubricator by nourishing the articular cartilage of the distal femur[2]. Among all skeletal injuries, patella fractures accounts for about 1% in both children and adults. The reason behind the patella often get injury is, it is present in the subcutaneous region making it more prone to injury[3]. Fractures are generally caused by direct blow that results in compression of bones, which appears as a sudden tensile force on the skeletal system[4]. Comminuted fracture refers to a bone fracture if a single bone gets broken in several parts of the same. Radiographic findings are always recommended in complaints of bone pain or severe pain which is aided by x-ray, which is a standard radiographic evaluation that includes anteroposterior (AP), lateral, and

sunrise views[5]. For assessing the displacement of bone the lateral view is most helpful[6]. A tangential view can be helpful in identifying osteochondral fragments and in assessing vertical fractures[7].

CASES STUDY:

A 18 years old male patient was brought to male surgical ward with complaints of pain and swelling of left knee, bleeding in the knee region due to accidental fall. On examination swelling and bleeding of injured area was seen. Patient was not a known case of diabetes, hypertension, chronic kidney disease. Patient has no any previous surgical history, no previous medical and medication history. Immunization of patient was up to age. Patient was suggested for x-ray, AP (anterioposterior) view revealed patella fracture as presented in the figure 1.



Figure 1: x-ray of knee joint

DISCUSSION:

It was also clearly stated by x-ray findings that it is a comminuted patella fracture. The patient was prescribed with injection diclofenac at a dose of 75mg for intravenous use at a frequency of twice daily for treat pain, injection ranitidine at a dose of 20mg was given intravenously at a frequency of twice daily, injection cefotaxime at a dose of 1gm intravenously trice a day is indicated for 5 days for preventing infection due to injury, injection metronidazole at a dose of 500mg was prescribed to prevent infection at a frequency of twice daily for 5 days.

The patient was operated with patellectomy on the 5th day of admission as suggested by the attending

physician. Patellectomy refers to excision of the patella as it is difficult to restore a perfectly smooth articular surface. As per American Academy of Orthopedic Surgeon Guidelines patellectomy is the surgical procedure to be operated in patient followed with appropriate anti-inflammatory and antibiotics and pain relief drugs.

CONCLUSION:

Though patellectomy is the only best approach for treating comminuted fracture of patella, future risks of fracture, and complications like knee stiffness, extensor weakness and osteoarthritis may be reported. Thus, the patient should be involved in decision making for better therapeutic approach and better life-style of the patient.

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