

CASE OF POST TRAUMATIC PATELLA OSTEONECROSIS

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Introduction: There are limited articles related to osteonecrosis of the patella and thus the exact pathogenesis is still unclear. Previous study showed nontraumatic osteonecrosis of patella can occur with patient taking corticosteroids. Prevalence of patella osteonecrosis in a traumatic patient is 9%. Patella osteonecrosis can be identified with xray which shows hyperdensity

Discussion: 17 years old gentleman had an alleged motor vehicle accident. Presented with open fracture of left patella with a jagged wound over anterior knee with patella exposed. Xray showed comminuted fracture of patella. Proceeded with wound debridement of left knee with cerclage wire of left patella using the midline approach on the same day. During his clinic follow up noted bone exposed from the wound however wound was clean. He denied having symptoms of infection. Septic parameters weren't raised. Serial xray showed progressive bony changes, hyperdensity over the upper pole and subsequently bony reabsorption. Proceed with bone nibbling of patella and removal of cerclage wire due to prominent implant. Intraoperatively culture showed no significant finding. Post operatively extensor mechanism intact, with minimal pain. No further surgery was arranged.

Conclusion: Patella blood supply is divided into extraosseous and intraosseous. Extraosseous blood supply forms an anastomotic ring from descending genicular artery, medial superior genicular artery, medial inferior genicular artery, lateral superior genicular artery, lateral inferior genicular artery, and anterior recurrent tibial artery. Intraosseous blood supply forms by two system which are midpatellar vessel and polar vessels. The distal half of the patella has a dual blood supply whereas the proximal pole only have one. This makes the proximal part of the patella more vulnerable to osteonecrosis. In this case, the cause of the patella osteonecrosis can be either from the trauma or the surgical approach that disrupts the patella circulation. Osteonecrosis of patella can either be treated surgically or conservatively