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Isolated bilateral patella fracture in an unusual context: a case report of a 23-year-old patient after a physical assault

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Image in medicine

Bilateral patella fractures, mostly caused by road accidents, are infrequent skeletal injuries and are rarely reported. We report a rare case of bilateral patella fracture occurring in an unusual context in a healthy 23-year-old man with no comorbid conditions who was the victim of a physical assault. He was brought to the emergency room for bilateral knee pains and inability to bear weight on both lower limbs. He complained of feeling pain in several parts of his body but predominantly on his knees. Clinical examination revealed swollen knees with abrasions over the left knee and on the anterior aspect of both legs (A), and an inability to actively extend both knees. Distal neurovascular examination of lower limbs was normal. X-rays of both knees showed transversal

fractures of both patellae (B). Internal fixation methods treated both knees (C). For the right knee, after a partial patellectomy of the distal fragment, the extensor mechanism was repaired and strengthened with a cerclage. A tension band technique was used for the left knee. Post-operatively, the patient was discharged on oral analgesics with both knees being kept in full extension with hinged knee immobilizers (D). Early weight-bearing supported by two crutches was authorized, and a ten-week continuous rehabilitation program of gradual knee movements was prescribed. Full weight-bearing without support was regained at ten weeks. At the last follow-up of one year, he had normal muscle strength with no limitation in routine activities and did not report knee pains or symptoms of patella instability.



Figure 1: (A) swollen knees with skin abrasions on the left knee and on the anterior aspect of both legs; (B) a plain X-ray of both knees on admission shows fractures of both patellae, the white arrow shows a transverse fracture of the inferior pole of the right patella and the yellow arrow shows a transverse fracture of the left patella midway between the poles; (C) post-operative control plain X-ray images of both knees, the white arrows show the cerclage wire used to strengthen the right extensor mechanism and the yellow arrows show the two Kirschner wires and the cerclage wire in a figure-of-eight suture used for the fixation of the left patella fracture; (D) a post-operative clinical image at two weeks' follow-up showing absence of swellings of both knees with proper healing of surgical wounds