Bilateral Spontaneous rupture of the Patella Tendon without Predisposing systemic Disease or Steroid Use: A Case Report.

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Bilateral spontaneous rupture of the patella tendon is an uncommon injury. However when found, it is usually associated with an underlying systemic disease or steroid use. We report an unusual case in a 50 year old male who was not on any medication prior to the incident and had no known systemic illness. The rarity of this condition **and the symmetry of the findings on physical examination may cause clinicians to miss the diagnosis. An early diagnosis and treatment led to satisfactory recovery.**
Key Words: bilateral; patella tendon; rupture

Introduction

Bilateral spontaneous rupture of the patella tendon without a predisposing factor is a rare injury. Its occurrence can be missed because of it rarity and in the absence of underlying systemic illness or chronic steroid use.

Case Report

A 50 year old man presented to the out patient orthopedic clinic of Kikuyu hospital having been referred from another hospital with bilateral knee pain and inability to stand for 4 days. The patient had slipped and fell on the last step of a flight of stairs. He immediately felt a sharp pain in both knees and was thereafter unable to walk. He had no known chronic illness. He was not on any medication. He had no prior history of hospital admission or surgery. There was no other relevant medical, social or family history. Examination revealed a man in fair general condition. He was not pale, not jaundiced or cyanosed. He ambulated with two crutches. Examination of his knees revealed some effusion in both joints, a palpable gap in the infrapatella region and inability to extend both knees.

Radiographs of both knees revealed a high riding patella (See Fig.1). Routine blood investigations: full blood count, renal function tests, rheumatoid factor, fasting blood sugar, serum calcium, phosphate and alkaline phosphatase were all normal. A clinical diagnosis of bilateral rupture of patella tendon was made.

The patient was taken to surgery 6 days after the injury. Both tendons were found disrupted at the junction of the patella and the patella tendon, bilaterally the medial and lateral retinacular were also torn. Both patella tendons and retinacular were repaired. Both knees were immobilized in a cylindrical plaster cast for six weeks followed by knee brace and physiotherapy for another six weeks. He made a full recovery in about 6 months.

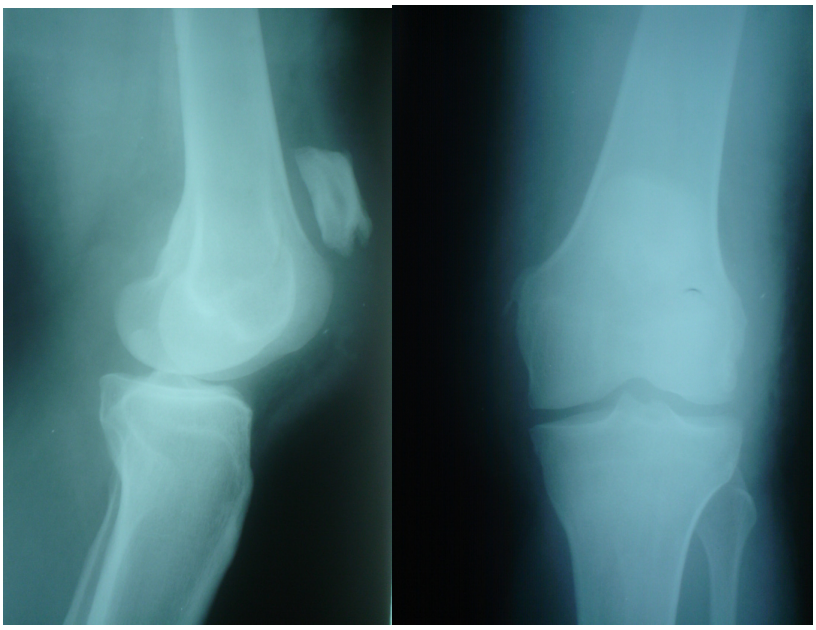

Figure1. Lateral view radiographs of right knee after patellar tendon rupture. The radiograph of the left knee was identical. Note the high position of the patella.

Discussion

Rupture of the patella tendon does not occur commonly[1]. Bilateral spontaneous rupture of patella tendon is even more rare [2, 3]. The majority of bilateral spontaneous patella tendon rupture cases reported in the literature have been associated with systemic diseases like systemic lupus erythematosus, rheumatoid arthritis, diabetes mellitus, gout, hyperparathyroidism, chronic renal failure or steroid use [3, 4]. In patients without systemic disease or steroid use, only about 20 cases have been reported [1, 3].

This injury is most often sustained when the patient lands unexpectedly on his feet with the knees flexed and contracts the quadriceps violently against the body weight in an effort to prevent a fall [4, 5].
On a plain radiograph, the patella may be found lying at a higher level (Fig.1) on the affected side as compared to the normal side, well demonstrated on a lateral view radiograph but in a bilateral injury comparison of radiographs is not possible. Ultrasonography and magnetic resonance imaging generally are unnecessary but may be useful in the few cases where the diagnosis is unclear or delayed [6].
It is important to recognize this injury especially in the absence of any radiological findings in a busy accident and emergency department because an early diagnosis and surgical repair often leads to a satisfactory recovery. The diagnosis can be mostly made on the basis of clinical features like mechanism of injury, knee effusion, infrapatellar gap, high riding patella and inability to lift the leg straight [5, 6].

The differential diagnosis of patella tendon rupture includes the very rare superior dislocation of the patella. This appears clinically and radiographically as a high-riding patella [7], but the patellar tendon remains intact and no infrapatellar defect is present.

Acute surgical repair of a patella tendon rupture is the standard of care [6]. There is no role for non operative treatment [8]. Delaying the surgical repair will result in contracture of the extensor mechanism, which can seriously complicate the repair [9].

Conclusion

Bilateral Patella tendon rupture is a very rare debilitating injury. The rarity and symmetry of the findings on physical examination may cause clinicians to miss the diagnosis. However prompt diagnosis and a secure repair, followed closely with rehabilitation, usually results in a good outcome.

References

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