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SIMULTANEOUS AND SPONTANEOUS BILATERAL RUPTURE OF THE PATELLAR TENDON IN RHEUMATOID ARTHRITIS

A Case Report

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Tendon rupture in patients with rheumatoid arthritis is not rare, but simultaneous and spontaneous bilateral rupture of the patellar tendon is very unusual.

We present a case of this type of tendon rupture.

CASE REPORT

A 27-year-old farmer was admitted to hospital complaining of pain and swelling in both knees.

Five years previously he was diagnosed as having rheumatoid arthritis because he had erratic pain in the small joints and a positive serology for that disease. He was treated with aspirin which improved the clinical picture, but he did not receive cortisone. At no time did he complain of pain, swelling or weakness in the knees.

One hour prior to his admission to hospital, he was going downstairs, and had an acute onset of pain and weakness in his left knee. He tried to support his weight on his right leg and the right knee also became painful and weak. He grabbed the handrail and prevented himself from falling. Afterwards he was unable to stand up or straighten either of his knees.

On physical examination he had a swelling in both knees with a clear gap in both patellar tendons just below the patellae, which were displaced proximally. Passive flexoextension was possible with some limitation due to pain.

X-rays showed bilateral high-riding patellae. No fracture at the patellae or anterior tuberosity of the tibia were seen. The effusion was evacuated and a compressive dressing was applied to each knee.

Two days after his admission the left knee was operated on. A complete rupture of the patellar tendon, just below the patella, was found extending into the retinacula about 3 cm on each side, medially and laterally. The rupture was repaired



Figure 1.

Figure 2.

Figures 1 and 2. Lateral roentgenograms of both knees on the day of injury showing high-riding patellae.

with interrupted silk sutures through drill holes made in the patella. The retinacula were repaired with interrupted stitches of No. 3 chromic catgut. A long leg cast was applied postoperatively.

Seven days later a similar technique was used to repair the right knee, which revealed a similar picture.

Six weeks after surgery the cases were removed and active movement was initiated. He regained strength and complete range of movement about 15 weeks after the first operation.

The histological examination showed an infiltration by mononuclear cells with diffuse calcification and some necrotic foci.

DISCUSSION

Many cases of spontaneous tendon rupture, particularly in the hand and wrist, have been reported in patients with rheumatoid arthritis (Kersley 1948, Laine & Vainio 1955, Ehrlich et al. 1959), but infrapatellar tendon rupture is less common in this disease. We have been able to find only one such case reported in the literature (Razzano et al. 1973).

Simultaneous complete bilateral rupture of the quadriceps tendon has been reported frequently, but bilateral rupture of the infrapatellar tendon is not so common (Martin et al. 1958, Strejček & Popelka 1969, Razzano et al. 1973, Rascher et al. 1974, Wener & Schein 1974). The last-mentioned reference was the one in which a case of simultaneous, bilateral and spontaneous rupture of the patellar tendon was reported.

Tendon rupture occurs most commonly in men past middle age (James 1938). The age of this patient makes this case quite unusual.

Cortisone has been implicated as one of the predisposing factors in tendon rupture (Strejček & Popelka 1969, Razzano et al. 1973), but this patient never received this drug.

The histopathological findings are those of avascular changes and fibrinoid degeneration, the latter being a typical finding in collagen diseases (Smaill 1961).

SUMMARY

A case of rupture of the patellar tendon in a patient with rheumatoid arthritis is presented. The age of this patient (27 years) makes this case quite uncommon. The rupture was bilateral, simultaneous and spontaneous. The absence of previous cortisone administration rules out this drug as a cause of the tendon rupture.

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