CASE REPORT

Bilateral patellar tendon rupture secondary to repeated local steroid injections

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SUMMARY

A case is reported of bilateral patellar tendon rupture in a fit man after a fall. He had a history of repeated local steroid injections into both tendons and histology confirmed steroid-induced changes. The history of repeated local steroid administration has to be implicated as the cause of this extremely rare injury in this patient, which can also be associated with hyperparathyroidism, systemic lupus erythematosus, diabetes and rheumatoid arthritis. All doctors performing repeated local steroid injections into the patellar tendon should be aware of the possible dangers of inducing tendon rupture and should ensure that the steroids are not delivered into its substance.

Key words: patellar tendons, ruptures, steroid injections

Histological examination of the patellar tendon specimens confirmed non-specific changes of scanty fibroblasts and blood vessels consistent with degeneration secondary to local steroid administration.

Post-operatively he made a good recovery and on follow-up at 6 months he continued to make good progress.

DISCUSSION

Rupture of the patellar tendon is unusual, but is an important disorder that may present to the A&E doctor.

Because of the great tensile strength of normal tendons, rupture through their substance is usually associated with a degenerative or pathological process. Normal patellar tendons do not rupture in their substance, but usually at the musculo-tendinous or osseotendinous junction at the lower pole of the patella.1

Bilateral rupture of the patellar tendon in healthy subjects secondary to trauma is exceptionally rare,2 but has been more commonly reported in conjunction with rheumatoid arthritis,3 systemic lupus erythematosus,4 and arteriosclerosis. Other factors such as diabetes mellitus, hyperparathyroidism5 and renal failure6 have also been cited. These disorders were sought and excluded in this patient, but must be borne in mind when assessing other patients with suspected patellar tendon rupture.

Both local and systemic steroid administration have been implicated in unilateral rupture,7,8 but to our knowledge local steroid-induced simultaneous bilateral patellar tendon rupture has not previously been described.

The use of local steroids may have reduced the normally substantial tensile strength of the tendon
to the extent where linear tension on falling caused simultaneous rupture through the substance. It has been suggested that steroids injected locally may have this effect, although there has been conflicting evidence on the direct effects of steroids on tendons.9

Local steroid injections into the patellar tendon for symptomatic relief of sports injuries may have significant sequelae in the event of tendon rupture. Great care must be taken not to penetrate the substance of the patellar tendon to avoid the potential outcome of tendon rupture. The consequences of steroid administration around a tendon are as yet undetermined.

REFERENCES

Bilateral patellar tendon rupture secondary to repeated local steroid injections.

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