

DISTAL BICEPS TENDON RUPTURE: A CASE REPORT

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Introduction: Distal biceps tendon rupture occurs most commonly in the dominant extremity of men between 40 and 60 years of age when an eccentric load on a flexed elbow is applied, which results in reduced flexion and supination strength. Although not reported to be common, it is with increasing frequency. It typically occurs at an area of preexisting tendon degeneration where the tendon inserts into the radial tuberosity.

Discussion: A 42-year-old right-hand dominant man was referred to us with two weeks history of pain and significant weakness of elbow supination and flexion affecting his activities of daily living. This injury occurred while lifting a heavy piece of metal (200kg) at work. He felt a sharp tearing sensation and a pop sound within the right antecubital fossa. Physical examination revealed a "reverse popeye sign" with proximal retraction of the biceps muscle belly. The distal biceps tendon was not palpable in the antecubital fossa with an abnormal hook test. He also had a weakness, MRC grade 4, of both elbow flexion and supination. Surgery of right distal biceps tendon repair was then performed with a single anterior incision and fixation with an Endobutton. The Endobutton delivers and locks the tendon into a hole in the radial tuberosity which allows an early active range of movement. At three months follow up, he was able to return to his daily activities and regained grade 5 strength.

Conclusion: Primarily, two techniques are often used, either the single anterior incision technique which secures the distal biceps tendon with either a cortical button or an anchor suture or a two-incision technique that secures the tendon via bone tunnels, intraosseous button or anchors. Both approaches show favourable clinical outcomes compared to nonoperative treatment. For optimal results, early surgical reattachment to the radial tuberosity is recommended.