Spontaneous Achilles Tendon Rupture in a Patient with Ankylosing Spondylitis

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A 43-year-old male patient had heel pain that was occurred spontaneously during walking 2 days before. At the time of visiting, bamboo spine was found in simple spine radiography, suggesting coexistence with ankylosing spondylitis (Figure 1). He was diagnosed with ankylosing spondylitis about 3 years ago at other hospital and treated with adalimumab (Humira; AbbVie Inc., North Chicago, IL, USA). The physical examination showed swelling, ecchymosis and dimpling in the posterior aspect of the ankle (Figure 2A). The initial radiograph of foot lateral showed loss of Kager’s triangle (Figure 2B) and confirmed by magnetic resonance imaging (Figure 2C). Ankylosing spondylitis is characterized by inflammation of the entheses and paravertebral structures, leading in time to bone formation at those sites [1,2]. Simple lateral foot image shows rupture of the Achilles tendon at calcaneal insertion site and combined with bony fragments. Acute Achilles tendon rupture can be managed by both operative and nonoperative strategies. Operative acute Achilles tendon rupture treatment can effectively reduce...
the risk of re-rupture but may also lead to more complications related to open surgery. It is generally accepted that operation should be performed for athletes, young and fit patients and that conservative treatment may be suitable for the elderly. However, controversy remains with regard to optimal treatment for acute Achilles tendon rupture [3].

An operation was performed because of insertional calcific Achilles tendinosis is a painful and frequently disabling condition. The patient was placed in the prone position under spinal anesthesia. Achilles tendon rupture was treated with tendon to bone repair using suture anchors (Figure 3). As of the 6-month follow-up simple lateral ankle image shows intact morphology of Kager’s triangle (Figure 4A), ultrasonography shows normal distal Achilles tendon with fibrillar pattern at calcaneal insertion (Figure 4B). There was no visually altered gait or problem in daily activity and he had recovered to full activity. This case shows that we should be aware of the possibility of encountering an uncommon spontaneous Achilles tendon rupture in the calcaneal enthesopathies of a patient with ankylosing spondylitis.

Figure 2. (A) The clinical photo shows swelling, ecchymosis and dimpling in the posterior aspect of the ankle. (B) Simple lateral ankle image shows loss of Kager’s triangle and bony fragments (arrow). (C) Sagittal T2 magnetic resonance image shows rupture of the Achilles tendon at calcaneal insertion site and enthesopathic spur.

Figure 3. (A) Intraoperative finding shows the rupture of the Achilles tendon at calcaneal insertion site and combined with bony fragments. (B) Achilles tendon rupture was treated with tendon to bone repair using suture anchors. (C) Postoperative finding shows complete repair tendon to bone repair.

Figure 4. Six months follow-up simple lateral ankle image shows intact morphology of Kager’s triangle (arrow) (A), ultrasonography shows normal distal Achilles tendon with fibrillar pattern at calcaneal insertion (arrowheads) (B). ACHIL. T: Achilles tendon, LT: left, RT: right.
CONFLICT OF INTEREST

No potential conflict of interest relevant to this article was reported.

REFERENCES