CLARIX® FLO for Achilles Tendinopathy

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Case Study: CLARIX® FLO for Achilles tendinopathy and Partial Tear

BACKGROUND

Achilles tendinopathy is one of the most common foot and ankle injuries characterized by pain, swelling, and impaired physical function.[1-4] Despite various conservative care methods, 24-45% of patients fail to respond and may require surgical intervention that is associated with complications and reoperation.[1, 5, 6] Therefore, the use of amniotic membrane and umbilical cord particulate (FLO) may be beneficial as an alternative conservative treatment option due to its anti-inflammatory and anti-scarring properties that have been shown to collectively promote efficient healing.[7, 8]

CLINICAL HISTORY

A 58-year-old male presented with intense, burning pain after injuring his left heel and medial aspect of the ankle joint while running. The patient had a history of pain in the left Achilles region intermittently for 1.5 years, presumably due to the use of strong antibiotics which is associated with Achilles tendinopathy and rupture.[6, 9] After the running injury, the patient tried taking Meloxicam (7.5 mg) for ~2.5 months to manage the pain, however, the patient's symptoms got worse and caused walking to become difficult. A MRI was performed and examination revealed acute-on-chronic Achilles tendonitis and a longitudinal, interstitial mid-tendon split tear that affected 20% of the cross-sectional area of the tendon. The tear was 4.2 cm above the insertion. Based on the MRI findings and difficulty walking, the patient was prescribed a pneumatic CAM Walker boot and continued taking Meloxicam. Three weeks later, the pain had ceased but there was decreased range of motion and concern in the healing of the Achilles partial tear.

TREATMENT PROCEDURE

In order to promote healing, an injection of amniotic membrane and umbilical cord particulate (CLARIX FLO) was performed. The CLARIX FLO (50 mg) was reconstituted with 3 ml of 2% plain lidocaine. The mixture was then injected under ultrasound-guidance using a 22-gauge needle. The needle entered the skin directly over the tendon and the FLO was injected intra-tendon in small aliquots at multiple sites localized to the area of tendinopathy damage. After injection, the site was wrapped with sterile bandage. The patient was given instructions to ice the area for relief as needed for approximately 24 to 48 hours, discontinue use of Meloxicam, and to continue wearing the walking boot 2 weeks post-injection.

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OUTCOME

After the CLARIX FLO injection, the patient continued to have pain relief. By 11 days, the Achilles was evaluated with ultrasound and there appeared to be early signs of recovery. The patient also subjectively reported a notable increase in Achilles strength with increased range of motion by 3 weeks. Although the patient had no pain and was advised to discontinue use of the walking boot, the patient continued to wear the walking boot outdoors as a precautionary measure. At 33 days post-injection, a repeat MRI was performed to evaluate the healing progress and showed an improvement in the appearance of the acute-on-chronic Achilles tendonitis. In addition, the mid-tendon split tear decreased in size to affect only 10% of the cross-sectional area of the tendon. At 3 months post-injection, the cast was taken off and one month later ultrasound examination revealed complete repair of the Achilles tendon.

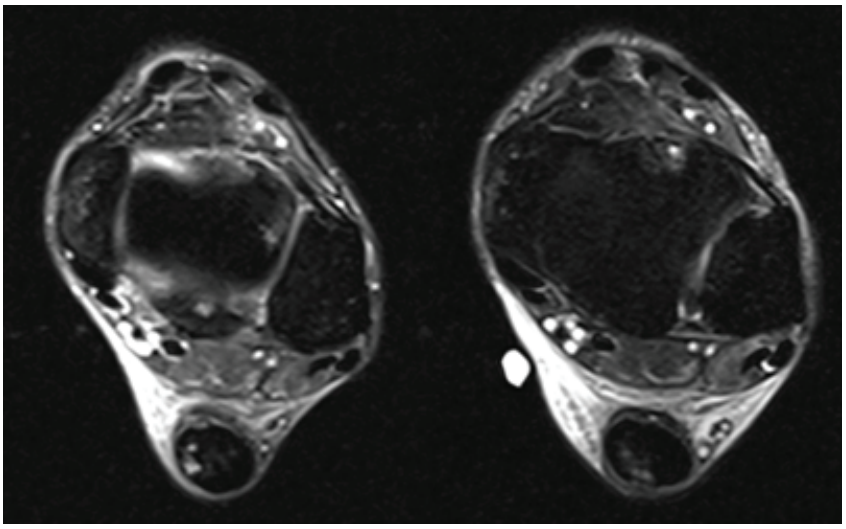

Figure 1. Axial MRI showing longitudinal peripheral interstitial tear of the mid-tendon (A) that recovered 33 days after CLARIX® FLO treatment.

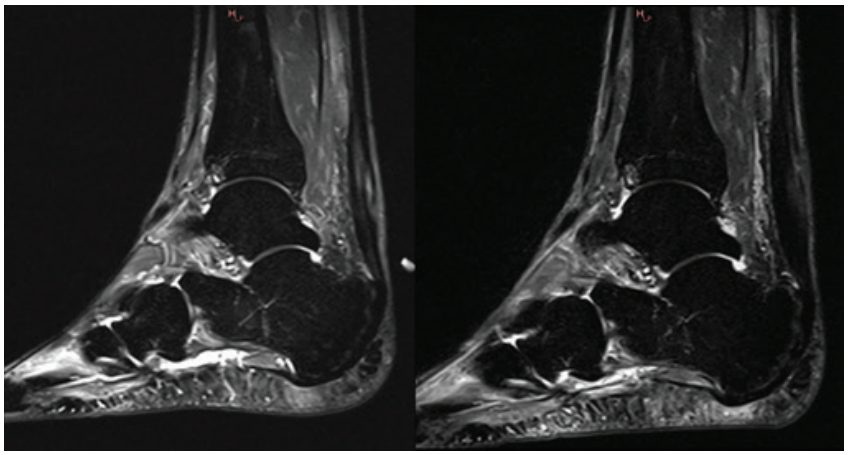

Figure 2. Sagittal STIR MRI showing Achilles tendinopathy and medial aspect tear 4.2cm above the insertion. Two months later, the Achilles showed dramatic healing with decrease in size of tear.

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