

Intratissue Percutaneous Electrolysis (EPI®) in the Treatment of Achilles Tendinopathy

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Intratissue Percutaneous Electrolysis

Intratissue percutaneous electrolysis (EPI[®]) ultrasound-guided treatment [1-5] is the application of a direct current (DC) whose cathodic flow is transferred to the area of the degenerative tendon [6-8] using an acupuncture needle. This accumulated electrical charge (AEC) in the degenerative tissue will produce the activation of the molecular, cellular and biological processes necessary to restore the regeneration mechanisms of the tendon (Figures 1 and 2). In recent studies it has been demonstrated that EPI[®] technique is effective in tendinopathy and sport muscular injuries (Figures 3 and 4).

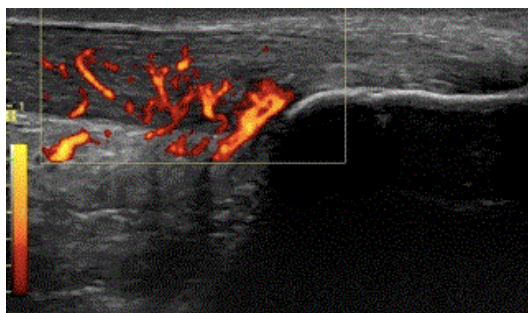


Figure 1: Ultrasound image with power Doppler. Longitudinal view of an Achilles neovascular tendinopathy with thickening of the tendon and hyperechoic image.



Figure 2: Achilles tendinopathy treatment using Intratissue Percutaneous Electrolysis (EPI[®]) technique.

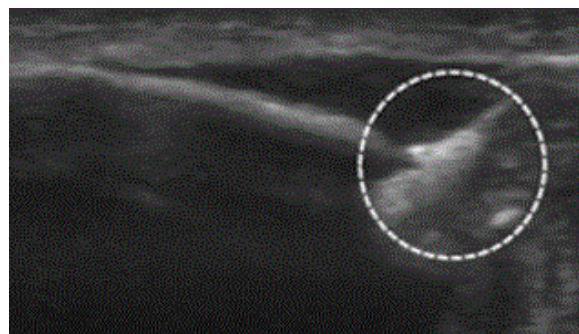


Figure 3: Hiperechoic image produced by the EPI[®] needle of 0.30 mm in the degenerative area of the tendon. This hiperechoic image corresponds to a gas density produced by the electrochemical response of the cathodic flow (CF) in the degenerative extracellular matrix.

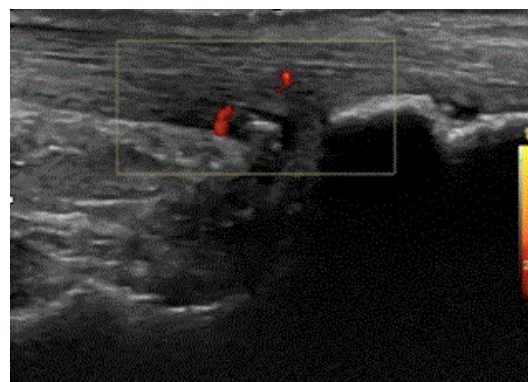


Figure 4: Ultrasound image in longitudinal view and color Doppler two months after the EPI[®] technique treatment ultrasound-guided. It is observed the degenerated area of the tendon that is substituted by a new connective tissue and decrease the neovascular effect.

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