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

Jose Manuel Sánchez-Ibáñez*

Sports Rehabilitation Center (CEREDE), Barcelona, Spain

*Corresponding author: Jose Manuel Sánchez-Ibáñez, Sports Rehabilitation Center (CEREDE), Barcelona Clinic, Spain, Tel: +34 934 523 510; E-mail: drsanchez@cerede.es

Received date: December 12, 2016; Accepted date: December 16, 2016; Published date: December 19, 2016

Copyright: © 2016 Sánchez-Ibáñez JM. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

Intratissue Percutaneous Electrolysis

Intratissue percutaneous electrolysis (EPI®) ultrasound-guided treatment [1-5] is the application of a direct current (DC) whose catodic 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 hipoeocic image.

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

Figure 3: Hipereocic image produced by the EPI® needle of 0.30 mm in the degenerative area of the tendon. This hipereocic image correspondence to a gas density produced by the electrochemical response of the catodic 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.

References

Tendinopathy, focused on the Region-Specific of the Tendon. Rheumatology (Sunnyvale) 5: 173.


