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technology

LATERAL EPICONDYLITIS

PLASMA RICH IN GROWTH FACTORS IN LATERAL ELBOW PAIN

ENDORET[®] TECHNOLOGY REMOVES PAIN AND RELAPSES IN CASES OF CORTICOSTEROID TREATMENT FAILURE

AIM OF THE TREATMENT

PAIN CONTROL

PRESERVATION OF
MOVEMENT-FUNCTION

IMPROVEMENT IN GRIP STRENGTH
AND ENDURANCE

RETURN TO NORMAL FUNCTION
AND ACTIVITY

AVOIDANCE OF FURTHER HISTOLOGICAL
AND CLINICAL DETERIORATION



ULTRASOUND-GUIDED
ENDORET[®] TECHNOLOGY TREATMENT
SHOULD ALWAYS BE CONSIDERED IN
CHRONIC CASES OF LATERAL
EPICONDYLITIS BEFORE
SURGICAL TREATMENT

ABSTRACT

Jorge Guadilla , Emilio Lopez-Vidriero, Rosa Lopez- Vidriero, Sabino Padilla, Diego Delgado, Rafael Arriaza, and Mikel Sanchez

PRP in Lateral Elbow Pain

INTRODUCTION

Tendon injuries, both acute and chronic (or tendinopathy), affect the quality of life, increase the costs of health care, and lead to stop sporting activities of a quite high number of patients and sport professionals.

HISTORY AND PHYSICAL EXAMINATION

Clinically, lateral epicondylitis (LE) is characterized by tenderness or pain over the lateral humeral epicondyle or, more typically, in the area where the common extensor muscles (specially the ECRB) meet the lateral humeral epicondyle. The patient may refer to a direct trauma to the lateral aspect of the elbow, but often the pain can be gradual and insidious. The pain often radiates down the forearm and unusually is proximal to the elbow. The intensity of the pain can range from intermittent and mild to constant and severe, affecting all daily activities.

TREATMENT OF LATERAL EPICONDYLITIS

First of all, an ultrasound exploration of the lateral elbow is conducted. Then, once the ultrasound probe has been longitudinally located along the injured tendon, we insert the needle from distal to proximal, in a parallel track to the collagen fascicles. Plasma Rich in Growth Factors (PRGF) is injected (shortly after activation) within the site of altered tendon substance using a 21-G needle attached to a Luer Lock syringe. The intention is to inject the maximum volume that can be confined within the area of degeneration, commonly between 3 and 5 mL (depending on the specific tendon and clinical case). Next, at some point during the extraction of the needle, additional PRGF is delivered to the healthy tendon. We also inject plasma around the tendon between the tendon and the paratenon, and finally, a smaller volume is delivered into the associated fat and another 2–3 mL into the elbow joint.

CLINICAL CASE

A 31-year-old paddle tennis player. He is a former Spanish National Team member and playing in the Professional Tour. He is left-handed. He came to our clinic complaining of progressive lateral elbow pain that limited his performance, and that was only temporarily relieved by physiotherapy and one corticoid injection. Physical examination showed pain on palpation and resisted contraction of ECR muscles, without signs of tendon rupture in the US scan.

RESULTS

PRGF was injected following our standard protocol for epicondylitis: under ultrasound control, only the growth-rich fraction (3 cc) was used, injecting it into the ECRB tendon origin, and also in the surrounding tissue; no local anesthesia was used, and the elbow was kept in a sling for the next 48 h. After the injection pain resolved, he was allowed to gradually return to training. One month later, he played his first competition match without pain, and symptoms have not recurred.