ACP Tendo – Plant derived human collagen scaffold combined with ACP for the treatment of tendinopathy

A European Case Series

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Introduction

ACP Tendo is a novel treatment approach for tendinopathy where Autologous Conditioned Plasma (ACP) is combined with a scaffold material, Vergenix STR. ACP falls into the group of Platelet Rich Plasma (PRPs) and is produced from a small volume of the patient’s blood containing elevated levels of growth factors which play a crucial role in tissue regeneration. Prior to injection it is combined with Vergenix STR, a recombinant human collagen Type I produced in tobacco plants. This scaffold material offers several advantages in regards to biocompatibility, safety and structure compared to tissue-derived collagen.

In vivo a fibrin-collagen clot is formed at the injection site releasing growth factors over time. A fibrin-collagen clot is formed at the injection site releasing growth factors over time.

Objectives

Safety and effectiveness of ACP Tendo was evaluated in a European case series for the treatment of tendinopathy in different locations.

Methods

24 patients in 9 different sites were treated with a single injection of ACP Tendo for following indications:
• Rotator Cuff: Partial ruptures of the supraspinatus
• Achilles Tendon: Tendinopathy
• Other foot and ankle tendon pathologies:
  - Peroneal Tendon Rupture/Tendinopathy, Tibialis Tendon
  - Common Extensor Tendon: Epicondylitis

Results

Patient pain recorded using the VAS score decreased in all groups from pre-treatment to 6 month follow-up time-point (Figure 2). No adverse events were recorded in any of the groups.

Figure 2: VAS Pain Score of patients treated with ACP Tendo for various indications.

Conclusion

This European case series shows that ACP Tendo offers a promising new treatment option for chronic tendinopathy. In all treatment groups, patient-recorded pain decreased after a mere 2 weeks and continued along this trend up to the last follow-up at 6 months. Functionality in the Rotator Cuff and Common Extensor Tendon Group increased over the study period, almost achieving pre-symptom levels after 6 months. The treatment combines both the advantages of autologous growth factors from ACP as well as the optimized scaffold properties of the Vergenix STR. The prolonged release of growth factors at the injury site makes it an innovative biological single-injection treatment option for tendinopathy as well as an option as a biological adjunctive in tendon reconstructions.

More patients and more scores are needed to evaluate long-term success.