of patients blood drawn at the time of treatment,and it is prepared in a process of differential centrifugation,where acceleration force is adjusted to sediment certain cellular constituents based on different specific gravity. Suspensions have different concentration of platelets and leucocytes depending on the method and time of its centrifugation.PRP injections may be performed unaided or under ultrasound guidance. Multiple injection techniques have been employed including intramuscular delivery of a singular bolus, multiple depots at the site of maximal injury, or a single injection into the muscle insertion site.

A NEURAL CREST ORIGIN OF TENDON CELLS?

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We have previously shown that tendon perivascular cells (TPCs) express markers associated with tendon cells and neural stem cells, such as Nestin and Musashi1. Findings that tendon cells express a variety of neuron associated markers such as acetylcholine, M2 acetylcholine receptors or substance P now lead us to hypothesize that tendons harbour a cell population of neural crest origin.

By immunohistochemistry using antibodies specific for tendon, neural crest and neuron associated markers on control- and Rosa26-YFP-Sox10-Cre mice as well as on Scleraxis-GFP mice and by in vitro differentiation assays on cultured murine tendon cells we characterized tendon cell in vitro and in vivo.

Murine Achilles tendon cells coexpress p75NTR, Tenomodulin, Doublecortin, Neurofilament and TUJ1.

Tendon cells from sox10cre mice express YFP together with tenomodulin the tail tendon anlagen of of E13.5 embryos. YFP is detectable in the Achilles tendons of adult animals. Tendon cells in tails of Scleraxis-GFP e13.5 embryos partly co-express p75 and GFP.

In vitro murine tendon cells differentiate into functional neurons with the capacity to generate spontaneous action potentials, detected by multi electrode array.

With this work we show that murine tendon cells express a variety of neuron associated markers. Analysis of Rosa26-YFP-Sox10-Cre and Scleraxis- GFP mouse tendons reveals a potential neural crest origin of a tendon cell population.