Achilles Tendinopathy Management (ATM):

A multi-centre placebo controlled randomised controlled trial comparing Platelet Rich Plasma (PRP) to placebo (imitation) injection in adults with Achilles tendon pain.

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Purpose

The purpose of this study was to compare a platelet rich plasma (PRP) injection to a placebo imitation injection for people who have had Achilles tendinopathy symptoms for at least 3 months, to see which group had a better outcome. It is important to carry out a study to investigate if the use of PRP injections to treat Achilles tendinopathy is effective as the use of this treatment has grown in popularity despite little research into this area. A group of 240 people with the Achilles tendinopathy helped researchers find out if there were any benefits of receiving the PRP injection vs a placebo imitation injection.

This summary is to help you understand what the results showed.

Why was the research needed?

Pain in the back of the heel affects 150,000 people annually leading to walking difficulties. The most common cause is Achilles tendinopathy (disease of an Achilles tendon). Tendinopathy in the mid-substance of Achilles tendon occurs due to the failure of the tendon to repair properly and, as a result, the condition can cause debilitating pain. Achilles tendinopathy is managed with advice, painkillers, specific exercises, electrotherapy, injections or surgery, but there is no single best treatment. PRP injection treatment involves taking a small sample of the participant's own blood, which is spun to separate out the components of the blood. The plasma, which contains a high number of platelets that play an important role in the repair processes within tendons, is removed from the sample and is injected into the painful tendon of the participant.

What kind of study was this?

This was a trial that took place at 24 NHS sites. In each site patients who consented to take part were allocated, by chance, to receive a PRP injection or placebo imitation injection to treat their Achilles Tendinopathy.

What happened during the study?

Before participants were allocated a PRP or Placebo injection they were asked to complete their first questionnaire which included questions relating to their pain, ability to perform activities and complications.

To make sure that participants did not know which treatment they had received, all participants provided a blood sample that could be used to prepare the PRP injection. Participants who were chosen to receive the placebo imitation injection received a "dry needle" injection into the skin around the painful tendon, while the other group of participants received the PRP injection into the painful tendon. After participants had completed their six-month questionnaire were given the option to be told which treatment they had received.

Two weeks after the injection participants were contacted via telephone to collect data around any symptoms or side effects from the injection they had experienced.

Participants were asked to complete questionnaires at three and six months after receiving treatment again relating to their pain, ability to perform activities and any complications they had experienced.

The Results

240 participants were allocated by chance to receive a single PRP injection (121) or single placebo injection (119). Of the 240 participants, 221 (92%) complete the questionnaire at the final six-month time point.

We found there was no difference between the two treatments at the three- or six-month time points for the various analyses used.

The research team found no evidence that platelet rich plasma injection for chronic midportion Achilles tendinopathy is superior to a placebo injection six months after treatment.

Where can I learn more about this trial?

The study results are available for all to read and can be found here: https://warwick.ac.uk/fac/sci/med/research/ctu/musculoskeletalandpain/atm/

ISRCTN: http://www.isrctn.com/ISRCTN13254422

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