Platelet rich plasma, what is it and what is the evidence?

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Platelet Rich Plasma (PRP) is a growing field in regenerative medicine. It involves taking the patient's own blood, extracting the platelets from that blood and then injecting the platelets into affected areas. Platelets have the ability to produce several growth factors which may enhance tissue healing. A review by Taylor et al. in 2011 showed 7/13 articles showing positive results for soft tissue type injuries like achilles tendinopathy, rotator cuff injuries, patellar and elbow tendonitis. Cochrane review in 2013 showed trending results to some improvement in PRP injections. However, the recommendation was that there is insufficient evidence to support the use of PRP injections for musculoskeletal soft tissue injuries. Since that time 292 additional articles have been published. Guatam et al. compared steroid injections versus PRP for recalcitrant lateral epicondylitis and showed that PRP enabled biological healing of the tendon, whereas corticosteroid injections provided short term symptomatic relief but resulted in tendon degeneration. Ford et al. in 2015 found that for recalcitrant lateral epicondylitis PRP and surgery had similar positive outcomes. In conclusion there is emerging evidence to support the use of platelet-rich therapy for treating musculoskeletal soft tissue injuries, particularly when conservative treatment has failed and the next treatment option is an invasive surgical procedure.

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Individualized physiotherapy versus advice for people with low back disorders: A 2-year follow-up of a randomized controlled trial

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Question: What are the 2-year outcomes of individualized-physiotherapy relative to advice for people with low back disorders?

Design: Two-year follow-up of a randomized controlled trial (ACTRN12609000834257).

Participants: 300 patients with a primary complaint of low back and/or referred leg pain.

Interventions: Patients received either 10-sessions of physiotherapy that was individualized based on pathoanatomical, psychosocial, and neurophysiological barriers to recovery combined with guideline-based advice or 2-sessions of physiotherapist-delivered advice alone.

Outcome measures: Primary outcomes were activity limitation (Oswestry Disability Index) and numerical rating scales for back and leg pain.

Results: Between group differences for Oswestry favoured individualized-physiotherapy at 10-weeks (4.7; 95% CI 2.0 to 7.5), 26-weeks (5.4; 95% CI 2.6 to 8.2), 52-weeks (4.3; 95% CI 1.4 to 7.1) and 104-weeks (3.1; 95% CI 1.4 to 6.0). Back and leg pain were significantly lower in the physiotherapy group relative to the advice group at 10-weeks (Back: 1.3; 95% CI 0.8 to 1.8, Leg: 1.1; 95% CI 0.5 to 1.7) and 26-weeks (Back: 0.9; 95% CI 0.4 to 1.4, Leg: 1.0; 95% CI 0.4 to 1.6) time points. Responder analysis at 52-weeks showed patients receiving individualized-physiotherapy were more likely to improve by 50% from baseline for Oswestry (relative risk [RR] 1.5; 95%CI 1.2-1.8) and back pain (RR 1.3; 95%CI 1.2-1.8) than those receiving advice alone.

Conclusion: Individualized-physiotherapy leads to greater reduction in long term activity limitation, back pain and leg pain compared to guideline-recommended advice. These differences appear to be clinically important.

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