

Editorial / Editörden

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## Is the evidence behind platelet-rich plasma therapies strong enough?

Trombositten zengin plazma tedavileri arkasındaki kanıtlar güçlü müdür?

## O. Şahap Atik, M.D.

Department of Orthopedics and Traumatology, Medical Faculty of Gazi University, Ankara, Turkey

Platelet-rich plasma (PRP) is obtained from a patient's own peripheral blood, after centrifuging it, and has growth factors.<sup>[1]</sup>

There are clinical studies indicating that PRP therapy may enhance muscle or tendon healing, and it accelerates the tissue regeneration after musculoskeletal injuries such as strain or contusion, during sports activities.<sup>[1,2]</sup>

The application of these products is documented also for treatment of the conditions like lateral epicondylitis, plantar fasciitis, and tears of the rotator cuff, anterior cruciate ligament.<sup>[3,4]</sup>

However, there is a growing debate regarding its clinical efficacy, the timing of platelet-rich plasma administration, optimal platelet concentration and platelet separation technique, ideal volume of the platelet concentrate.<sup>[5,6]</sup> The uncontrolled studies have shown beneficial effects for several conditions. However, the results of controlled trials comparing platelet-rich plasma with standard therapies are not as definitive.<sup>[5,7]</sup>

The orthopaedic surgeons should know that there is still uncertainty about the evidence behind plateletrich plasma therapies.

## REFERENCES

- Paoloni J, De Vos RJ, Hamilton B, Murrell GA, Orchard J. Platelet-rich plasma treatment for ligament and tendon injuries. Clin J Sport Med 2011;21:37-45.
- 2. Taylor DW, Petrera M, Hendry M, Theodoropoulos JS. A systematic review of the use of platelet-rich plasma in sports medicine as a new treatment for tendon and ligament injuries. Clin J Sport Med 2011;21:344-52.
- 3. Randelli P, Arrigoni P, Ragone V, Aliprandi A, Cabitza P. Platelet rich plasma in arthroscopic rotator cuff repair: a prospective RCT study, 2-year follow-up. J Shoulder Elbow Surg 2011;20:518-28.
- 4. Bava ED, Barber FA. Platelet-rich plasma products in sports medicine. Phys Sportsmed 2011;39:94-9.
- Sheth U, Simunovic N, Klein G, Fu F, Einhorn TA, Schemitsch E, et al. Efficacy of autologous platelet-rich plasma use for orthopaedic indications: a meta-analysis. J Bone Joint Surg [Am] 2012;94:298-307.
- Mazzocca AD, McCarthy MB, Chowaniec DM, Cote MP, Romeo AA, Bradley JP, et al. Platelet-rich plasma differs according to preparation method and human variability. J Bone Joint Surg [Am] 2012;94:308-16.
- Andia I, Sánchez M, Maffulli N. Platelet rich plasma therapies for sports muscle injuries: any evidence behind clinical practice? Expert Opin Biol Ther 2011;11:509-18.

• Correspondence: O. Şahap Atik, M.D. Gazi Üniversitesi Tıp Fakültesi Ortopedi ve Travmatoloji Anabilim Dalı, 06500 Beşevler, Ankara, Turkey. Tel: +90 312 - 202 55 28 Fax: +90 312 - 212 90 08 e-mail: satikmd@gmail.com