



## Platelet-rich plasma: everything new may not be good enough!

Trombositten zengin plazma: Her yeni şey yeterince iyi olmayabilir!

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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 accelerate tissue regeneration after musculoskeletal injuries such as strain or contusion, during sports activities.<sup>[2]</sup> It is also used for the treatment of osteoarthritis.<sup>[3]</sup>

However, no definitive conclusions can be made about the effects of PRP in those conditions, because most studies are of low to moderate methodological quality and use variable PRP protocols. There is a growing debate regarding PRP's clinical efficacy, the timing of PRP administration, optimal platelet concentration, platelet separation technique, and ideal volume of the platelet concentrate.<sup>[4,5]</sup>

Uncontrolled studies have shown beneficial effects for several conditions. Whereas results of controlled trials comparing PRP with standard therapies are not as definitive.<sup>[4-6]</sup>

The results of a study of Yan et al.<sup>[7]</sup> indicate that the efficacy of the PRP treatment of tendinopathy varies markedly with different types of PRP preparations; leukocyte-poor-PRP may promote tendon healing through anabolic effects while leukocyte-rich-PRP may impair the repair process. They suggest that leukocyte-poor-PRP administration might be a favorable option for the clinical management of chronic tendinopathy in the future.

Also, whether locally applied PRP injections are more effective than a surgical procedure in reducing symptoms is still controversial.<sup>[8,9]</sup>

It is far too early to draw conclusions about the efficacy of PRP as a treatment for all these conditions.

Further high-quality research is needed to establish the clinical and cost-effectiveness of PRP, and the optimal PRP protocol.

Orthopaedic surgeons should be aware of that there is still uncertainty about the evidence behind PRP therapies, and should inform patients about this fact.

### REFERENCES

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