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Abstract

Lateral Epicondylitis (LE) is a common degenerative tendinopathy that affects a wide variety of patients.

- Disease burden and procedural costs have increased in recent years.
- Current treatment with steroid injections is starting to fall out of favor.
- Platelet rich plasma (PRP) injections are an alternative therapy for LE.
- Steroid injections may be more beneficial in the short term; whereas PRP might be more beneficial in the long term.

Introduction/Background Info

What is Lateral Epicondylitis?

- Degenerative condition at the origin of the tendon at the lateral epicondyle of the humerus.

What is current treatment of LE?

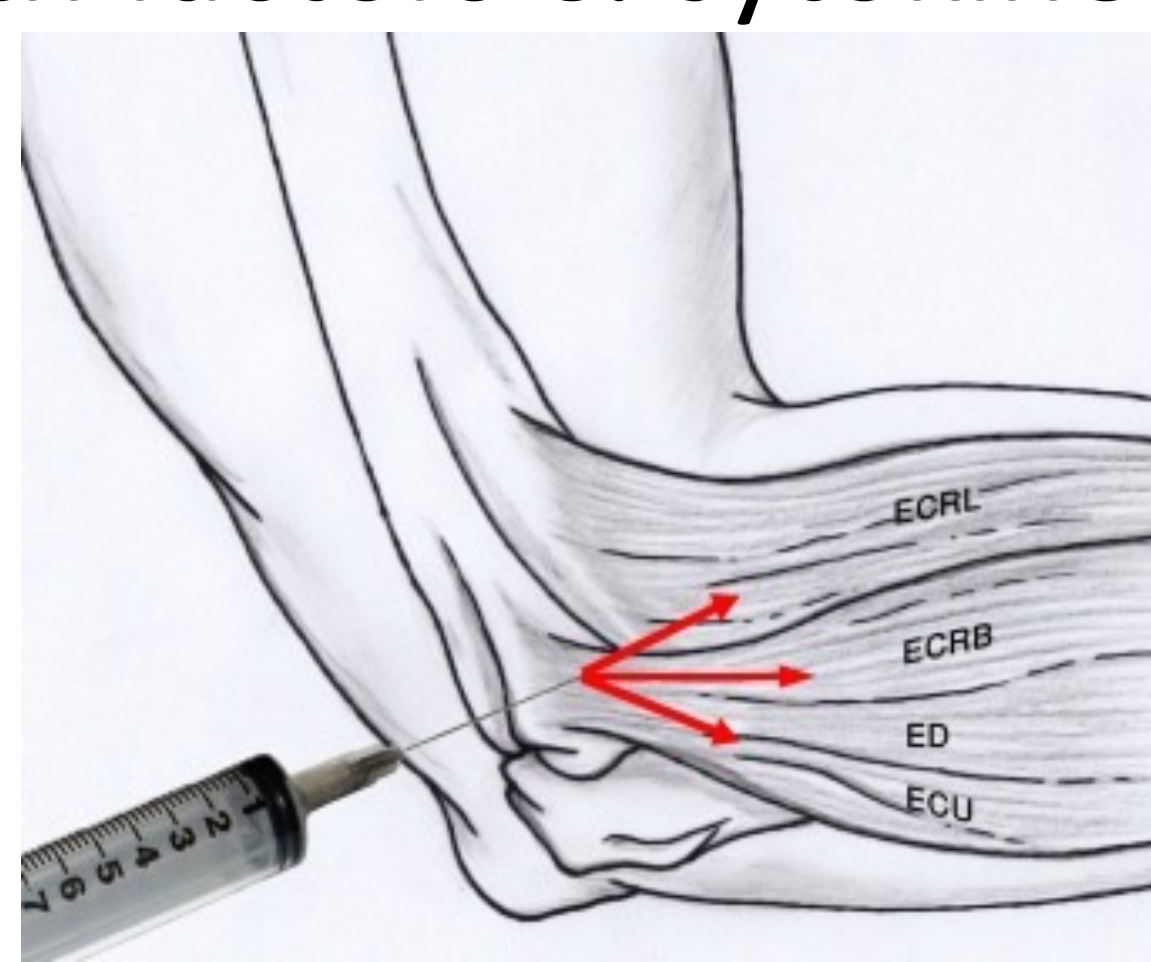
- Most common treatment is rest, physical therapy, bracing, & corticosteroid injections

How do steroid injections work?

- Helps reduce inflammation.

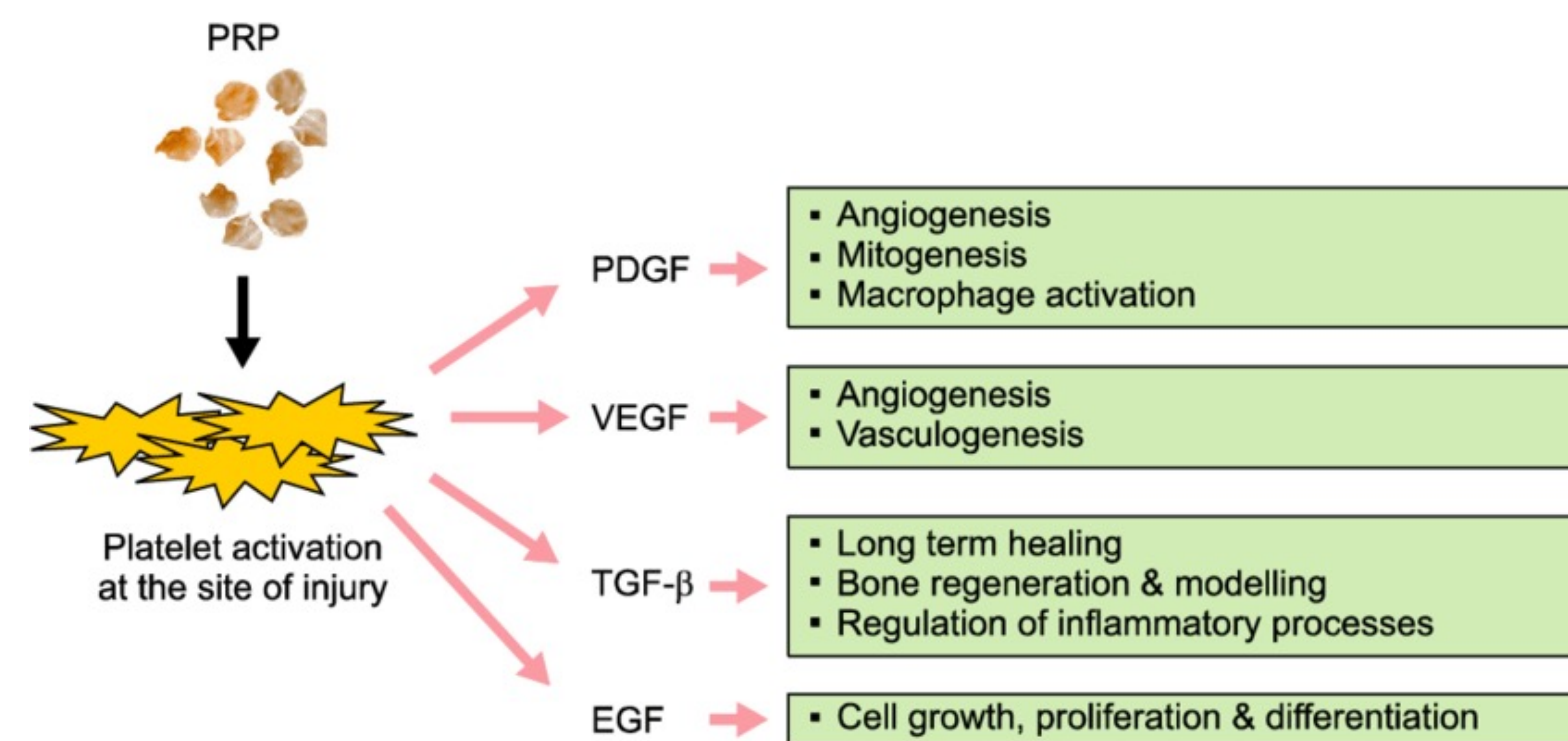
How do PRP injections work?

- Helps stimulate the healing process through growth factors & cytokines.



Discussion

Lim et al investigated the biological effects of PRP injections in LE. The study found an improvement in pain score, function score, and MRI grade in the PRP treated group. The study also found that PRP mostly improves LE through TGF- β mediated mechanisms.



A systematic review showed that steroid injections proved to be beneficial for pain relief and function in the short term (2-8 weeks) whereas, PRP injections proved to be beneficial for long term (8 weeks) pain relief and function.

A study published by Brkljac et al investigated long-term benefits of PRP injections in refractory LE. They found 96.8% of patients had an improvement in Oxford Elbow Score and 26% of patients had further procedures after initial the initial PRP injection.

Conclusion

Current data supports PRP injections are more beneficial than steroid injections at providing long term pain relief and improving function.

PRP injections can be an effective option at decreasing the amount of follow-up visits, repeat injections, and more invasive treatments.

PRP injections can help reduce overall healthcare costs in populations with limited resources by reducing the need for future injections, appointments, and surgeries.

Future Research

Further research is needed to specify what formulation and preparation of PRP injections is most effective in treating lateral epicondylitis including optimal volume, timing, injection technique, quality of PRP preparations, leukocyte-rich vs leukocyte-poor PRP, and difference in WBC and growth factor concentrations

References

For a complete list of references used, please scan the QR code with your mobile device.



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