Platelet-rich plasma (PRP) for COVID-19 olfactory dysfunction

a systematic review and meta-analysis

COVID-19 related persistent OD demonstrates significant QoL, morbidity and mortality burden

This study aims to evaluate the efficacy, safety and timing of PRP intervention in the treatment of persistent COVID-19 OD.

Review scope

443 articles screened,
12 included

697
PRP patients

227
Controls

Random-effects meta-analyses for improvements in validated OD measures

Differences in improvements between cohorts detected via chi2 test

Significant improvements in:

+5.94
Vs control +2.60
MCID: 5.5

TDI sniffin' sticks

All individual domains

+2.65
Vs control +0.73

VAS OD

All except VAS OD

Significantly greater improvement in PRP versus control

The PRP arm reaches MCID for combined TDI scores but not for any individual sub-domain

GRADE analysis revealed low-very low certainty in pooled estimates

- Level 2a evidence with low-very low certainty of effect size suggesting PRP is safe and potentially effective internationally
- No included study investigated PRP beyond 2 years OD
- Consideration of PRP recommended after 6 months OD
- Efficacy beyond 24 months unknown

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