



PIGMENTATION

CLINICAL EFFICACY OF PLATELET RICH PLASMA IN MELASMA

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Background: Melasma is a cutaneous disorder causing profound psychological morbidity. Multiple therapeutic agents are available but the treatment remains challenging as none lead to complete resolution. Platelet rich plasma (PRP) derived from the patient's own blood contains platelet α -granules having more than 30 bioactive substances like platelet-derived growth factor (PDGF) and transforming growth factor (TGF) which decreases melanogenesis via delayed extracellular signal-regulated kinase activation. PDGF further aids in the synthesis of collagen and hyaluronic acid which is responsible for skin rejuvenation. Though few case reports of beneficial effects in melasma are reported but there are no studies of PRP in melasma.

Objective: To assess the clinical efficacy of intralesional PRP in melasma and to assess the adverse effects if any.

Material and methods: This is an open labelled therapeutic trial which included 65 patients. The treatment consisted of three sessions of autologous PRP injections intralesionally 1 month apart. Therapeutic outcomes were assessed by standardized digital photography and modified melasma area severity index (mMASI) at each visit and at the end of 3 months of follow up.

Results: Results after 6 months: 4 (6.25%) : excellent response (>75 % reduction in mMASI), 21 (32.8%): very good improvement (51-75 % reduction in mMASI), 27 (42.1%): good (26-50 % reduction in mMASI), 10 (15.6%): partial response (1-25% reduction in mMASI), 2(3.1%): no or minimal improvement, 1: dropped out because of post inflammatory hyperpigmentation. There was 47.3 % reduction in mean mMASI which was statistically significant. All patients experienced significant improvement in skin texture. Patients reported improvement in acne scars and topical steroid induced hypertrichosis. Xerosis was observed in 37 % of the patients. There was no relapse at 6 months.

Conclusion: PRP is a useful therapy for melasma

