



HAIR DISORDERS

SCALP THREADING WITH MONOFILAMENT PDO THREADS IS A MORE EFFICACIOUS AND BETTER-TOLERATED TREATMENT FOR AGA IN MEN COMPARED TO MICRONEEDLING-PRP COMBINATION THERAPY: RESULTS OF A RCT IN 60 PATIENTS

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Background: The quest for novel therapies for AGA continues. Microneedling and PRP are known to stimulate hair growth in AGA. Monofilament polydioxanone (PDO) threads, used for non-surgical face-lift result in foreign body reaction-induced neocollagenosis, mechano-transduction, and improved microcirculation – mechanisms that can stimulate hair growth.

Aim: To compare the efficacy & safety of scalp threading with monofilament PDO threads with microneedling + PRP therapy combination in men with AGA

Methods: 60 eligible patients (men with AGA Grade III to V vertex; age - 18-50 years) were randomized in two groups. Group A: Single session of scalp threading with PDO threads, and Group B: Single session of microneedling with PRP. In group A, monofilament PDO threads (30 mm long) were inserted intradermally in the scalp. Multiple needles (20-40) were inserted at 1 cm spacing in a radial orientation followed by their withdrawal, leaving the PDO threads in situ. In group B, 1.5 mm dermaroller and double-spin PRP were used. Both protocols were done under topical anaesthesia.

Efficacy measures (12 weeks post-therapy) – 1) Primary - global photographic improvement (GPI); 2) Secondary – (a) comparison of trichoscopic hair count in a fixed 1 cm² area, and (b) patient satisfaction on VAS (range: 1-10), (c) pain score during procedure.

Results: At 12 weeks, hair growth was appreciable in both groups. Group A vs Group B - mean improvement in GPI was 54% vs 31% (p=0.035); mean trichoscopic hair count increment was 64 HFU/cm² vs 42 HFU/cm² (p=0.022) and mean VAS for patient satisfaction was 5.4 vs 3.4 (p=0.031). The pain score was significantly higher in microneedling + PRP group.

Conclusions: Scalp threading with monofilament PDO threads is not only a novel approach





to enhance hair growth in AGA, its results after single session are better and much less painful than microneedling + PRP.

