Androgenetic alopecia and microneedling: Every needling is not microneedling

To the Editor: We read with interest the deliberation by Rodrigues et al on use of platelet-rich plasma (PRP) to treat androgenetic alopecia (AGA) that was published in the *Journal of the Academy of Dermatology*.[1] In this pilot study, 26 of 30 patients with AGA who had been screened for study inclusion were recruited and treated with 4 sessions of subcutaneous PRP injections biweekly. Rodrigues et al found a statistically significant increase in hair count, hair density, and percentage of anagen hairs in the PRP group at 12 weeks' follow-up. Rodrigues et al deserve acknowledgment for their sincere attempt to generate evidence by a placebo-controlled trial in this less-charted territory.

Rodrigues et al[1] discuss the controversies surrounding PRP and the effect that needling/microneedling may exert, including release of growth factors and activating stem cells, and they deliberate the studies on microneedling by Kim et al[2] and Dhurat et al.[3] However, we disagree with the contention of Rodrigues et al[1] regarding needling/microneedling being ineffective as a treatment modality in AGA, which is at most conjectural. The argument of Rodrigues et al is based on their observation that the placebo arm differed from the PRP arm in terms of the evolution of AGA. In this regard, we wish to clarify that microneedling should not be confused with needling. Microneedling is carried out by using a dermaroller, which contains 192 titanium alloy–coated needles arranged in 24 rows of 8 needles each (Fig 1). Dermarollers are available in sizes varying from 0.5 mm to 3 mm, with 1.5 mm being the preferred size for use on patients with AGA. The procedure involves repeated, sequential, multidirectional movement of the dermaroller over the scalp with firm pressure until pinpoint bleeding points are visible (Fig 2). Therefore, the number of dermal pricks inflicted by microneedling is much greater than the 20 subcutaneous injections placed at 1-cm intervals as in the study by Rodrigues et al.[1] We would also wish to draw the attention of Rodrigues et al to our case-controlled study on 93 patients with AGA treated with minoxidil 5% alone or in combination with PRP with or without microneedling.[4] Though a validated objective measure of treatment outcome akin to TrichoScan (Tricholog GmbH, Freiburg, Germany) was not used in our study, we documented better response in the group treated with a combination of minoxidil, PRP, and microneedling than with PRP and minoxidil or minoxidil alone. Therefore the argument of Rodrigues et al[1] regarding microneedling being ineffective in treatment of AGA is premature and lacks evidence.

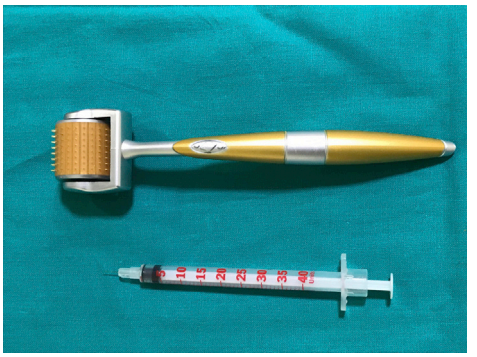

Fig 1. Dermaroller used in the procedure of microneedling. One can appreciate the microneedles arranged concentrically in rows of 8 needles. Presented for comparison is a 30-gauge insulin syringe normally used to inject platelet-rich plasma over the scalp.

Fig 2. Pinpoint bleeding points over scalp after microneedling.

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