

EFFECTIVENESS OF PLATELET RICH PLASMA
ON HAIR REGROWTH

JALIS HISHAM BIN ABDUL JAMIR

1001128332

MASTER OF SCIENCE (ANTI-AGING,
REGENERATIVE MEDICINE AND MEDICAL
AESTHETICS)

FACULTY OF MEDICINE AND HEALTH
SCIENCES

UCSI UNIVERSITY

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ABSTRACT

Platelete Rich Plasma (PRP) is a current topic in the mainstream field of Regenerative medicine in many aspects mostly scrutinized in the specialty of Orthopaedics. Its efficacy in regrowth of hair using mesotherapy / microneedling / direct injection technique in affected patients mainly in androgenic alopecia and alopecia areata has been a hot topic of debate for many years. It is believed that revascularization of scalp vessels supplying hair roots and dermal papillae and the effects of high concentrations of various growth factors found in patient-derived (autologous) PRP could be among the important factors explaining the phenomena of treated patients showing growth of more mature, 'thicker' looking hair in comparison to non-treated patients. Armed with the knowledge of hair composition and growth cycle, it only makes sense that the safest, most efficient natural way to proliferate the growth of newly cultured dermal papillae and keratinocytes is by entrapping these cells in the body's natural own protein/growth factor matrix that promotes angiogenesis and mitogenesis. This review closely looks at 6 articles which most complies to the criteria of this topic. The various techniques used to infuse the autologous PRP into patients' scalps include microneedling, traumatisation using dermaroller, and direct needle injection. Objectively comparing pre and post treatment hair-pull test, follicoscopic photography and patient self-assessment scores, it is concluded that autologous PRP infusion coupled with micro-traumatization of scalp as a mode of treatment or enhancement of hair growth in patients with androgenic alopecia and alopecia areata is a feasibly relevant method that is effective and safe. However, a larger scale review and more reliable clinical trials should be conducted before we can come to a more concrete and decisive conclusion that may be used in policies and protocols for management of hairloss.