



AESTHETIC AND COSMETIC DERMATOLOGY (LASERS SEPARATE CATEGORY)

INCREASING GROWTH FACTORS LEVEL OF PLATELET-RICH FIBRIN LYSATE BY USING VARIOUS DEGREES OF HYALURONIC ACID CROSSLINKING DERMAL FILLERS

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Background: Several beneficial ingredients have been introduced to treat the fibroblast premature aging skin, in which we use hyaluronic acid (HA) and PRF lysate (PRF-L) as the combination. Nowadays, the most favoured medical therapy for aging on skin is using HA crosslinking of dermal fillers. Thus, the PRF-L properties that are rich in growth factors (GF), the combination of those ingredients is expected to create finer synergistic and potentiation effects.

Objective: The objective of this study is to learn the effect of numerous degrees of HA crosslinking on GF levels in PRF-L.

Materials and Methods: PRF of healthy adult venous blood with 72 hours of incubation was basically prepared to produce PRF-L, along with the HA was also prepared by using 3 crosslinking degrees of 3%, 4%, and 10%. Measurement method of GF levels was completed by using sandwich ELISA method. The amount of GF levels was TGF- β 1, PDGF-BB, and bFGF.

Results: The addition of HA crosslinking intensified GF levels in PRF-L. Higher crosslinking degree (4% & 10%) showed lower effect on releasing GF of PRF-L, therefore the lower one (3%) indicated better result.

Conclusions: The best GF released was benefited from the usage of HA crosslinking lower degree. Lower degree of HA crosslinking has intensified GF levels in PRF-L.

