

AESTHETIC AND COSMETIC DERMATOLOGY (LASERS SEPARATE CATEGORY)

## THE EFFECT OF AMNIOTIC MEMBRAN STEM CELLS CONDITIONED MEDIUM (AMSC– CM) AND SODIUM ASCORBYL PHOSPHATE IN ASIAN PHOTAGING : A CASE SERIES.

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**Background:** The clinical characteristics of photoaging in Asian skin, such as pigmentary changes and wrinkle patterns, differ from those Caucasian skin. Amniotic membrane stem cells conditioned medium (AMSC-CM) prospect for cell therapy and regenerative medicine, comprises growth factors and cytokines, improve proliferation and migration of dermal fibroblasts and epidermal keratinocytes as well as increased collagen synthesis in fibroblasts. Sodium ascorbyl phosphate (SAP) is a stable vitamin c derivative, protects cells against free radicals, promotes collagen formation and acts on the melanine formation. We mix the AMSC-CM and SAP for better effect. Most growth factors are large hydrophilic molecules greater than 20 kDa; therefore, microneedle was used to enhance the skin penetration of AMSC-CM and SAP. The objective of this study is to examine the effect of AMSC-CM and SAP on photoaging by using skin analyzer device, Janus-II, for evaluating the improvement of wrinkle, spot, skin tone and pore.

**Observation:** This study was a 8 weeks follow-up. Three female patient who fulfilled the inclusion criteria with same baseline of age and Glogau scale were enrolled. Each patient underwent 3 session of treatment with intervals of 2 weeks consecutively, consisting of microneedle followed by mixture of AMSC-CM and SAP application all over the face. The progression was assessed on week 4 and week 8, using Janus-II skin for evaluating significant improvement in wrinkle, spot, skin tone, and pore.

**Key Message:** AMSC-CM and SAP has capability to improve photoaging and could be a promising option as rejuvenation treatments. Randomized controlled trials are required in the future.