

ACOS230-002: The Use of Bone Marrow Mesenchymal Stem Cell Derived Cytokines and Growth Factors in The Management of Androgenetic Alopecia

Wingjian Foo¹

¹Premier Clinic Mont Kiara Malaysia

Corresponding author email: nigel_foowingjian@hotmail.com

Hair loss is a common condition observed in both men and women. Androgenetic alopecia, also known as pattern hair loss, stands as the most prevalent form of hair loss. While androgenetic alopecia doesn't significantly impact physical health, it can significantly affect the mental health and overall quality of life for the patient. Presently, only two medications, minoxidil and finasteride, are FDA-approved for treatment, but their effects often prove unsatisfactory. Stem cell-based regenerative medicine represents a promising frontier in hair regrowth and follicle repair. Stem cells exert therapeutic effects primarily through their secretions, known as the secretome, which involves paracrine and trophic actions. Stem cell-based therapy modalities encompass stem cell transplants, stem cell-derived conditioned medium, and stem cell-derived exosomes. This review focuses on discussing the application of cytokines and growth factors derived from bone marrow mesenchymal stem cells in managing Androgenetic alopecia. Considering their favourable outcomes, bone marrow mesenchymal stem cell-derived cytokines and growth factors should be considered more prominently as an alternative to conventional therapies in managing Androgenetic alopecia.

Keywords: Hair Loss, Androgenetic Alopecia, Stem Cell Secretome, Regenerative Medicine