Hair Mesotherapy

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Mesotherapy is a minimally invasive technique that consists of the intradermal injection of variable mixtures of natural plant extracts, homeopathic agents, pharmaceuticals, vitamins, enzymes, hormones and other bioactive substances in microscopic quantities. Mesotherapy was first described by Frenchman Dr. Michel Pistor in 1952. He first administered procaine intravenously to treat an asthmatic patient and found that the patient’s hear loss was treated. Then he started to experiment on intradermal injections of procaine for various indications and named the method as “mesotherapy” in 1976. The use of mesotherapy, whether scientifically proven or not, has been outspreading over 50 years [1,2,3]. The term mesotherapy means the treatment of the mesoderm, which is one of the three primary germ layers in the early embryo that develops into connective tissue, muscle and the circulatory system. Mesotherapy is used in the treatment of cellulite, local fat deposits - xanthelasma, lipoma, alopecia, rejuvenation - wrinkles, skin tightening, hyperpigmentation and melasma, body contouring and scar reduction. Compounds used in mesotherapy applications are lidocaine, procaine, xylocaine for local anesthetics; NaCl 0.9 % for diluents; MgSO4, pantothenic acid, biotin, cobalamin, B complex vitamins, vitamin B12, vitamin C, vitamin A, zinc, selenium for minerals and vitamins. The main substance of mesotherapy is procaine [2,4,5]. Mesotherapy has been used for several years in Europe and South America for body contouring. Its introduction and application is about 10-15 years in Turkey. Mesotherapy describes a technique by which mixtures of medications and other compounds are injected directly into a diseased area so that systemic effects of oral or intravenous medications can be avoided. The composition of common mesotherapy formulations is selected and mixed in a “cocktail” before injection [3]. A lot of substances can be added such as piroxicam for the antiinflammation effect, pentoxysphyline for circulation stimulation, tretinoin for the collagen regeneration, finasterid, dutasterid, biotin and minoxidil for hair growing, aminophylline, cafein and phosphatidylicholine for lipolysis. There is no standardized formulation for mesotherapy and ingredients vary depending on indications. The components and combination of injected material is based on anecdotal reports or the physician’s experience [5,6]. There are no clinical data that have been published that include standardized regimens, treatment protocols. The science of mesotherapy can be advanced only by scientific and clinical research [7,8] (Table 1 and 2).

General Mesotherapy Applications

The various injection techniques within classical mesotherapy are described based on their depth of injection, from the surface or epidermis to the deep dermis and subcutaneous tissues.

- Intra-epidermal
- Papular
- Nappage
- Point-by-point [9,10]

Hair Mesotherapy

Hair mesotherapy can also be called “mesoplasty” or “mesohair”. It represents a variety of minimally invasive techniques in which medications are directly injected into the scalp in order to improve alopecia and hair growth. Mesotherapy acts on the epidermis, dermal connective tissue, the circulation, the immune system and the neurosensory system. This therapy is effective at some certain forms of alopecia. Acute diffuse alopecias such as telogen effluvium and stress alopecias androgenetic alopecias, alopecia areata are the forms that mesotherapy can be used with good results. It is not effective at hair shaft dystrophies or scarring alopecias. In the hair mesotherapy, there is lack of mixture and application scheme whose effectiveness has been proved scientifically. Content of cocktails changes due to physician’s practice and experience [9,10,11]. The effects of treatments are to restore and increase local microcirculation, provide nutritional input, slow down the programmed process of follicular involution, stimulate the hair’s environment through needling and complement other treatments [4,12]. The chemicals that are claimed to stimulate hair growth and new hair production are butomedil, minoxidil, finasteride, dutasteride, biotin, vitaminds and organic silicium.

Vasodilators

In the treatment of alopecia; procaine, butomedil, pentoxyfylline, ginkgo biloba, minoxidil can be used as vasodilator. By the vasodilatation, local microcirculation is restored and get stronger. Buflomedil is an alpha-adrenoceptor antagonist and a weak calcium channel blocker. Ginkgo biloba also has antiedema effect. Minoxidil is very important and effective drug for hair loss. It is shown that minoxidil enhances hair growth by prolonging the anagen phase and induces new hair growth in androgenetic alopecia. We do not use...
Hair mesotherapy is a non-surgical, relatively painless injection technique. Despite the fact that there is very little scientific evidence sustaining its widespread use, the field of hair mesotherapy have grown enormously in the past few years, becoming a common method in cosmetic medicine. Its use in cosmetic medicine to eliminate hair loss is gaining in popularity. To ensure a satisfying cosmetic result, it is critical to use the correct cocktail and injection technique. No long term side effects have been seen in thousands of patients.

References


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