An Alternative Treatment for Weakness and Sparseness of Eyebrows: Mesotherapy, A Pilot Study

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Introduction

The eyebrow is an important element of facial beauty and weakness and sparseness of eyebrow hair may cause significant psychological problems, especially in women. Eyebrow transplantation and tattooing are popular techniques to correct loss of eyebrow hair. However, transplantation may be complicated by morbidity of the hair transplant, and variation in the hair thickness and growth pattern in comparison to the natural eyebrow, while tattoo can look unnatural.

The field of mesotherapy was founded by Pistor in 1958, and refers to intradermal application of diluted pharmacological agents. Mesotherapy was developed in the 1950s, and was initially used to correct hair problems. The proven efficacy of hair mesotherapy has led to the use of the technique for eyebrow problems. Although there have been no published studies of eyebrow mesotherapy in the literature up till today, it is a minimal invasive and efficacious option available for patients.

Materials and Methods

A total of 12 patients who complained of weak and sparse eyebrows (mean patient age: 32 (26-42) years) underwent eyebrow mesotherapy. The 12 patients, 8 were satisfied with the results on day 15 after treatment and clinically apparent thickening and darkening of colour was observed.

Discussion: Eyebrow mesotherapy provided good results in this study, which is at odds with the complications of the technique discussed in the literature. In brief, mesotherapy could be useful for correction of eyebrow problems that contribute to the perception of beauty. The results of this pilot study demonstrate that eyebrow mesotherapy is a minimal invasive method that may be tried prior to invasive and irreversible methods, such as eyebrow transplantation and tattooing.

Materials and Methods

A total of 12 patients who complained of weak and sparse eyebrows underwent eyebrow mesotherapy during this pilot study (Figure 1a). The drug cocktail included routinely used hair mesotherapy agents. The solution was purchased from Institute BCN ESTHETICS, (Barcelona, Spain) and consisted of 40% multi-trace elements (zinc sulphate (0.1 g), copper gluconate (0.04 g), manganese sulphate (0.01 g), sodium selenite (0.002 g), chromium chloride (0.0004 g)), 10% biotin, 20% X-ADN gel (2.5% deoxyribonucleic acids) and 20% organic silica + dimethylaminoethanol (10% methylsilanol manuronate, 3% dimethylaminoethanol). Mesotherapy was applied 3 times with 1 week interval to each patient.
Results

Clinically apparent thickening and darkening of hair colour was observed in eight patients upon assessment at day 15 after treatment (Figure 1c). New hair growth on the edge of the eyebrow was observed in these eight patients, who were satisfied with the results. Furthermore, positive effect of mesotherapy was still observed in the control at month 2 of the study (Figure 1d). A total of four patients observed no change in their eyebrows after treatment, and comparison of the before and after photos confirmed this result.

Discussion

Although mesotherapy is not an alternative to surgical treatment, its popularity is gradually increasing due to media attention and patients’ desire for minimal invasive procedures. Plastic surgeons typically do not favour these therapies, but also do not emphasize inefficacy of the treatment. The results obtained in this study with a one session of mesotherapy are very encouraging.

The factors leading to weakness of the hair follicles have not been adequately or critically evaluated in the literature [4]. The effects of specific vitamin and mineral deficiencies on hair follicle weakness have been shown [5]. However, there are insufficient data about female-type hair follicle weakness in the literature. Either directly or indirectly, the cocktail used in this study positively affected the eyebrow hair follicle in eight patients. However, no change was observed in four patients, suggesting that these patients may have other causes of hair follicle weakness, which were not addressed by use of our cocktail.

In the light of the results, eyebrow mesotherapy should be considered a minimal invasive method to be tried prior to invasive and irreversible methods, such as eyebrow tattoo and transplantation. Future studies with a larger number of cases and different cocktail components would enable more comprehensive investigation of the advantages of mesotherapy.

References

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