



HAIR DISORDERS

A COMPARATIVE STUDY OF PLATELET-RICH PLASMA INTRADERMAL INJECTIONS PLUS TOPICAL MINOXIDIL (5%), PLATELET-RICH PLASMA INTRADERMAL INJECTIONS AND TOPICAL MINOXIDIL (5%) ALONE IN MALES WITH ANDROGENETIC

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Minoxidil for topical application is the standard treatment for androgenetic alopecia (AGA). Intradermal injections of platelet-rich plasma (PRP) were included recently to the Evidence-based (S3) guideline for the treatment of AGA.

The aim of the study was to compare the clinical efficacy of topical applications of a 5% solution of minoxidil, intradermal injection of PRP, and a combination of these techniques. Sixty-six patients (18-53 years old) with AGA stage I to IV of Norwood-Hamilton were selected. Patients were randomly divided into three groups of 22 patients each. A 5% solution of minoxidil was applied to the dry scalp skin twice a day. Injections of PRP were performed intradermally, 0.15 ml per injection, 4 procedures every 4th weeks. Clinical efficacy was assessed by the dynamics of morphometric indices of hair growth. The measurements were carried out using a digital video camera Aramo S (Aram Huvis Co., L td., Korea) and a program TrichoSciencePro v1.3RUS before and after 4 months after treatment.

In patients, who were treated with 5% solution of minoxidil, the hair density changed the most significantly - by 16% ($p=0.00073$). In patients who were treated with PRP injections, hair density and average hair diameter increased by 11%, ($p=0.00025$) and 10% ($p=0.00766$), while the proportion of vellus hair decreased by 14% ($p=0.00959$). The clinical effect of complex therapy (topical minoxidil and PRP injections) significantly exceeded the effect of treatment with topical minoxidil alone and PRP intradermal injections alone. The hair density increased by 32% ($p=0.00004$), the diameter of the hair shafts - by 26% ($p=0.00004$). At the same time, the proportion of vellus hair decreased by 30% ($p=0.00082$), and the proportion of telogen hair - by 39% ($p=0.00008$).

The data obtained suggest that PRP and minoxidil potentiate each other's effects, and their complex seems promising for the treatment of AGA.

