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Non-Surgical Treatment of Baldness: My experience

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Abstract

Background: Alopecia refers to partial or complete absence of hair from areas of the body where it normally grows. Alopecia is classified into 2 categories: non-scarring alopecia and scarring alopecia. In the group of non-scarring alopecia we found alopecia androgenic, whose presentation is very frequent within our population. Androgenetic alopecia is the most common hair loss disorder affecting up to 80% of men and up to 40% of women with Caucasian heritage.

Methods: The present work is experimental, prospective, during the period February 2015 to February 2017, performed in the private practice of the author, in 37 patients, whose average was 35 years (range, 31 to 47 years), 36 men and 1 woman and with different degrees of androgenic alopecia, areas most affected being the frontal, parietal and vertex regions. The process consisted basically of application platelet-rich plasma once per month for 12 continuous months with a 30 gauge needle, plus topical application of minoxidil 5% (solution) on scalp, 2 times a day and oral intake of finasteride 1mg every 24 hours during the same period.

Results: The growth of fine hair was noticed from the third and fourth month in the areas of alopecia with which the patients arrived at the initial consultation (frontal, parietal and vertex). One patient developed contact dermatitis bu the use minoxidil 5%. No patient reported decreased libido and / or erectile dysfunction following the intake of finasteride. All patients expressed a high degree of satisfaction.

Conclusions: should point out that the proposed method described in this paper represents a suitable alternative to improve hair loss in the case of androgenetic alopecia.

Keywords: *Androgenetic alopecia; Minoxidil; Finasteride; Platelet-rich plasma*

Background

Alopecia is a chronic dermatological disorder in which people lose some or all of the hair on their head and sometimes on their body as well. It is a chronic inflammatory disease that affects the hair follicles [1]. There are several types, ranging from thinning hair to complete baldness. Alopecia is classified into 2 categories: non-scarring alopecia, when the hair follicles are still alive and hair can be grown and scarring alopecia, when the hair follicles are destroyed and will not regrow hair.

In the group of non-scarring alopecia we found alopecia androgenic, whose presentation is very frequent within our population. Androgenetic alopecia also known as male pattern baldness is the most common hair loss disorder affecting up to 80% of men and up to 40% of women with Caucasian heritage [2].

Alopecia has few physically harmful effects, but may lead to psychol-ogical consequences, including high levels of anxiety and depression [1-3]. Medical treatment for the disorder has limited effetiveness, and the failure to find a cure can leave patients very distressed [1]. Hair loss is a sign of aging, which is not very well tolerated by many people suffering from baldness, as we develop in a society where the tendency is "to maintain and exhibit eternal youth."

Currently, there are 2 treatment modalities for this pathology, medical treatment and surgical treatment, the latter being a process that requires a lot of surgical time, expensive equipment and highly specialized personnel. In a society where less invasive solutions are sought and do not represent loss of working days for the patient, they were informed of an alternative method.

From a published article in August of 2013 in Facial Plastic Surgery Clinics of North America titled Nonsurgical Therapy for Hair Loss [4], we started the study design as well as the patient search for this experimental work, based on the use of minoxidil 5%, finasteride 1 mg and injections of platelet rich plasma.

The innovation of the present work is the addition of platelet-rich plasma to the protocol already established in "Nonsurgical Therapy for Hair Loss" (minoxidil 5% + finasteride 1 mg), seeking to accelerate the process of capillary regrowth, as well as decrease the prolonged intake of finasteride, reported as ingested up to 4 years, thereby reducing the incidence of side effects.

Methods

The present work is experimental, prospective, during the period February 2015 to February 2017, performed in the private pra-

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practice of the author, in 37 patients, whose average was 35 years (range, 31 to 47 years), 36 men and 1 woman and with different degrees of androgenic alopecia, areas most affected being the frontal, parietal and vertex regions. The process consisted basical-ly of application platelet-rich plasma once per month for 12 continuous months with a 30 gauge needle, plus topical applicat-ion of minoxidil 5% (solution) on scalp [5], 2 times a day [6] and oral intake of finasteride 1 mg every 24 hours [4, 7] during the same period.

After this time only platelet-rich plasma was applied every 3 months in the subsequent year and 5% minoxidil was continued, but finasteride intake was discontinued.

Likewise, it should be noted that after the first year of control, some patients (n=10) did not return to their controls, indicating previously a high degree of satisfaction until the date of its last control.

Results

The growth of fine hair was noticed from the third and fourth month in the areas of alopecia with which the patients arrived at the initial consultation (frontal, parietal and vertex) as we can see in the photos shown.

Case 1 : Male patient 47 years of age in the 6th month of treatment

Case 2 : 44-year-old male patient in the 10th month of treatment.

One patient developed contact dermatitis (patient of case 3) with minoxidil 5% during the third month of application, which disappeared when it was changed by the use of 2% minoxidil solution. No patient reported decreased libido and / or erectile dysfunction following the intake of finasteride 1 mg during the follow-up period of the patients.

All patients manifested mild discomfort during the application of platelet rich plasma, which was performed in the intradermal and subcutaneous plane with a 30 gauge needle. Only 2 of them needed to use midazolam 5 mg orally 30 minutes before the procedure to tolera-tolerate it adequately. Subsequent to this procedure the stinging was

Case 3: A 44-year-old male patient in the 10th month of treatment that developed contact dermatitis to minoxidil 5%.

controlled with topice ice application for half an hour.

In the fifth month we can see a gradual thickening of the hair, as well as an improvement in the implant. By the tenth month onwards the aesthetic results were very flattering.

All patients (n=37) expressed a high degree of satisfaction, and only 3 of them continue to periodically go to their control appointments every 4 months for application of platelet-rich plasma since they started their treatment 2 years ago. I should also mention that 19 patients (51.35 %) are within their third and fourth months of treatment.

Case 4: A 33-year-old male patient who had shaved her hair to hide her baldness in the 9th month of treatment.

Case 5: Male patient aged 34 in the 18th month of treatment.

Discussion

Hair loss in early stages of life, especially in the 40s and 50s remains a frustrating and depressing episode for those who suffer. For this reason the Plastic Surgeons are no strangers of the presence of these patients in the daily consultation. However these same patients given the information they have through the Internet and the social media require increasingly less invasive procedures that allow them to continue their working life without alterations and therefore desist the Hair Transplant we learned during our stage of training as the main way of solving the problem.

The occurrence of contact dermatitis in a patient represented 2.7% of the total sample (n=37), similar to that indicated in the article by

Nusbaum, B et al. [4]. The side effects associated with the use of finasteride, such as decreased libido, erectile dysfunction and decreased volume of ejaculation reported by Nusbaum, B et al. [4] and Kaufman, K. et al. [8] were not manifested by the patients in our study.

As for the observed results of the appearance of fine hair from the third month of treatment is probably explained by Nusbaum, B et al. [4, 9] who described that the first signs of efficacy are usually seen at 3 months of application minoxidil 5% and finasteride 1 mg, and was used for 12 months because the same author pointed out that total stabilization / regrowth of hair required the intake of finasteride during a period of 12 months. The most affected areas were frontal, parietal and vertex as described in other studies [10].

I should also mention that platelet-rich plasma [5, 11-13] was added to the initial protocol that only consigned minoxidil and finasteride in the search to improve clinical outcomes, but at the same time with the aim of reducing the prolonged intake of finasteride (reported as up to 4 years [10] and having maintenance treatment with it, avoiding the side effects.

Finally, I should point out that studies with larger populations and long-term follow-up are necessary in order to determine the recurrence of alopecia after the suppression of some drugs such as finasteride.

Conclusion

The treatment described for androgenic alopecia with minoxidil% + finasteride 1mg + platelet-rich plasma represented a treatment option for this pathology during the follow-up period.

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