



وزارة البحث العلمي والتعليم العالي

جامعة بابل

كلية العلوم للبنات

قسم علوم الحياة

بحث بعنوان

**Histopathological Findings of uncomplicated Hair
Transplant for Male .**

تم انجاز هذا المشروع استكمالاً لمتطلبات للحصول على درجة البكالوريوس

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صدق الله العلي العظيم

يونس — الآية 10

الاهداء

الى خالق الروح والقلم وبارئ الذر والنسم وخالق كل شيء من العدم الى من بلغ
الرسالة و ادى الامانة ..وناصح الامة..الى نبي الرحمة ونور العالمين الى السادة
الاطهار وعروته الوثقى اهل بيت النبوة ..

الى مراد قلبي والاقرب لي من نفسي المغيب عن الابصار والكامن بعين البصيرة
الى بقية الله الاعظم ..صاحب العصر والزمان (عجل الله فرجه)

الى من علمني ان الدنيا كفاح ..وسلاحها العلم والمعرفة الى الذي لم يبخل عني بأي
شيء الى من سعى لأجل راحتى ونجاحي الى اعظم واعز رجل في الكون..ابي
العزیز

الى تلك الحبيبة ذات القلب النقي الى من اوصاني الرحمن بها و
احسانا الى من برا

سعت وعانت من اجلي الى من كان دعائها سر نجاحي..امي الحبيبة

الى من اشاركهم لحظاتي ..الى من يفرحون لنجاحي و كانه نجاحهم...اخوتي
بكل حب اهديكم هذا جهدي المتواضع

والى دكتورة رفاة هادي لطيف مشرفه هذا البحث التي لم تتوانى في مد يد العون
لم تكن الرحلة قصيرة ولا ينبغي لها ان تكون، لم يكن الحلم قريبا ولا الطريق كان
محفوفا بالتسهيلات لكني فعلتها.

Abstract

Insufficient hair growth after hair transplant, as well as erythema and perifollicular scaling, treated as such based on clinical and histopathological findings. The purpose of this study is to observe graft biopsies of patients after uncomplicated hair transplants and to discuss if histological findings are enough to diagnose lichen planopilaris.

Introduction

Androgenetic alopecia (AGA) is a noncicatricial type of hair loss with progressive miniaturization of the hair follicle resulting in an insufficient coverage for a bald area. It is the most common type of hair loss in men and women [1].

Different types of treatments have been used over the decades, including minoxidil and finasteride, but only a hair transplant is able to recover the area where hair has already been lost. Nowadays, the main techniques for hair transplant are follicular unit transplantation (FUT), when hair is extracted from a strip in the occipital area, and follicular unit extraction (FUE), when follicular units are extracted one by one using a small punch from the donor area. In both situations, hair is implanted into the recipient area with small forceps or implanter devices [2]. The results vary according to surgeons' experience and individual characteristics of patients [3].

Even though it is a very popular procedure, normal findings on clinics, trichoscopy, and scalp biopsies after hair transplant are scarce in the literature so far. Some aspects of its evolution may mimic primary cicatricial alopecia (PCA) and confuse even experienced professionals.

Frontal fibrosing alopecia (FFA) and lichen planopilaris (LPP) are post transplant complications that have been reported by Kossard and Shiell [4] and Crisóstomo et al. [5]. Diagnoses in these cases were made by clinical presentation, with diffuse coalescing areas of hair loss, diffuse hair thinning, and perifollicular erythema, and mainly confirmed through histopathology [5, 6, 7].

Considering that histopathological findings of normal hair transplants are not described, this study aims to analyze biopsies of scalps with implanted hair grafts after hair transplant for AGA in patients who have had a normal outcome of their surgeries. We compare these histology findings with the adjacent area of the same patient, not submitted to the procedure, and discuss features of LPP biopsies in order to make an accurate diagnosis of this possible complication

Materials and Methods

This study was developed at the hair transplant clinic. All patients agreed to participate and signed an informed consent form. Terms of good practice were observed, and ethics approval was received from the patient.

Patients were included after being diagnosed with AGA through a clinical exam by dermatologists experienced in hair diseases.

After local anesthesia with lidocaine 2% with adrenaline, biopsies with a 4-mm punch were taken from a normal aspect hair graft on the recipient site. The punch was placed in 100% formalin in a tube of the same patient, not submitted to the procedure. Specimens were cut in transverse sections and stained with hematoxylin/eosin (HE). Histopathologic criteria analyzed were inflammatory lymphocytic infiltrate and fibrosis.

Alterations were only considered when these findings were perifollicular and in isthmus level, mainly based on comparison among biopsies and pathologists' personal experience.

Results

8 male patient, between 29 and 61 years. All of them were transplanted at the frontal area.

In male patient, lymphocytic inflammation was seen after hair transplant shown in the Figure. In the control area, not submitted to the procedure, these findings were not observed.

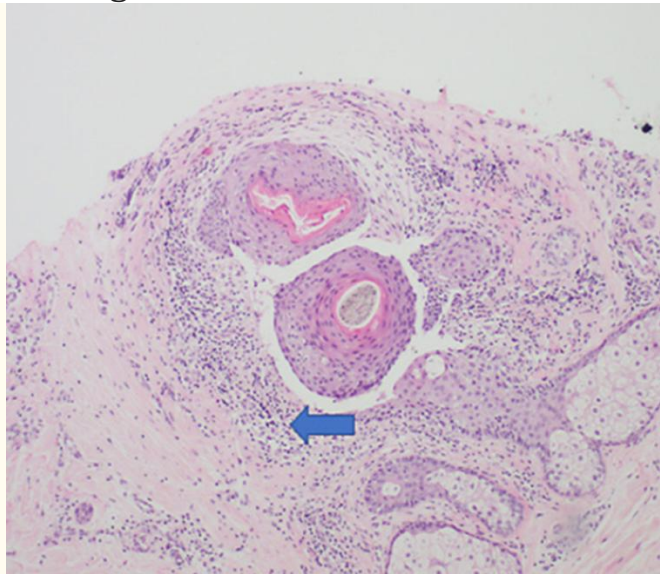


Fig.
Lymphocytic perifollicular infiltrate around isthmus.



Discussion:

Androgenetic alopecia (AGA) is the most common type of hair loss in men and women [8].

Different types of treatments have been used over the decades, including minoxidil and finasteride, but only a hair transplant is able to recover the area where hair has already been lost. Nowadays, the main techniques for hair transplant are follicular unit transplantation (FUT), when hair is extracted from a strip in the occipital area, and follicular unit extraction (FUE), when follicular units are extracted one by one using a small punch from the donor area. In both situations, hair is implanted into the recipient area with small forceps or implanter devices [9]. The results vary according to surgeons' experience and individual characteristics of patients [10].

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