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Efficacy and safety of oral minoxidil 5 mg daily during 24-week treatment in male androgenetic alopecia

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Background: Despite well established to treat hair loss and enhance hair growth, the efficacy and safety of oral minoxidil for treatment of male pattern hair loss has never been evaluated.

Objectives: To evaluate treatment efficacy and safety of oral minoxidil in male androgenetic alopecia (AGA).

Materials and methods: Men, aged 20-60 years, with AGA types III vertex to V according to modified Norwood—Hamilton classification, were given oral minoxidil 5 mg daily for 24 weeks. Treatment efficacy was analyzed by 3 expert panels and investigator's evaluation of global photography using standardizing 7-point rating scale, hair count, hair diameter, and patient's self-assessment. Both physical examination and laboratory investigation were closely monitored for safety profile.

Results: 30 men, mean age of 38 $\pm$ 10 years and mean duration of baldness of 12.9 $\pm$ 11 years, were recruited. Photographic assessment of vertex area revealed 100% improvement (score >+1), remarkably in 43% of patients (score = +3). Longer treatment duration signified the efficacy outcomes, with increased median (range) score from 2 (0 - 3) to 2 (1-3) (P <.001). Higher ratio of the remarkable improvement was from 6.7% to 43.3% (P <.001) at weeks 12 and 24, respectively. Oral minoxidil significantly increased total hair count at the vertex from baseline to 26.0 hairs/cm^2 (14.25%) and 35.1 hairs/cm^2 (19.23%) (P = .007) at week 12 and 24, respectively. Significant response was observed at the frontal area, but less than the vertex area. All were distinctively improved in their self-assessment, with hypertrichosis (93%) and pedal edema (10%) as common side effects. 3 subjects (10%) were noted with EKG alteration, including occasional PVC and T-wave change in 1 lead.

Limitation: With limited 24 weeks, larger randomized, double-blind, placebo-controlled trials of longer follow-up should thus be warranted for long-term efficacy and safety.

Conclusions: Oral minoxidil 5 mg daily significantly enhances hair growth and restoration in men with AGA. It is considerably safe with minor side effects of hypertrichosis and pedal edema. However, much caution is required in those with severe hypertension and cardiovascular risk.

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Folliculitis decalvans: A multicenter review of 82 patients

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Background: Folliculitis decalvans (FD) is a rare form of neutrophilic scarring alopecia with an unknown pathogenesis. There is no effective treatment. The objective of the present study is to describe the epidemiology, comorbidities, clinical aspects, diagnostic findings and therapeutic choices in a large series of patients diagnosed of FD.

Methods: A retrospective multicenter study was designed including patients diagnosed of FD. Diagnosis was performed based on the typical clinical presentation and dermatoscopic findings with histologic confirmation in all cases. Data regarding epidemiology, comorbidities, clinical, symptoms, laboratory evaluation, treatment, evolution and time to relapse were analyzed. Response to therapy was assessed as improvement, worsening or stabilization.

Results: The study included 82 patients (52 males and 30 females) with a median age of 39.7 years (range 17-80). Clinically, 33 patients (40%) presented a grade I FD, 32 patients (39%) a grade II FD and 17 patients (21%) a grade III FD. Itching was present in 56 patients (68%), trichodynia in 25 patients (30%), tufted hairs in 72 patients (88%) and pustules and crusts in 47 patients (57%). The most frequent localizations were the vertex area (46 patients, 13%), followed by the parietal area (9 patients), the occipital area (5 patients) and the frontal area (5 patients). In 15 patients (18%), 2 or more areas were affected. In 69 patients (84%), it was detected a unique alopecic patch, while 13 patients (16%) presented between 2-5 alopecic patches. After multivariate analysis, the independent factors associated with a more advanced FD (grade III) were: onset of FD before 25 years of age (RR: 12.4; P = .020) and the presence of pustules in the alopecic patch (RR: 3.94; P = .007). The most effective treatments were the association of clindamycin and rifampicin (n = 15) with a response rate of 100%, followed by oral tetracyclines (n = 46) with a response rate of 90%.

Conclusions: FD affects both males and females of median age. Clinically, it usually starts as a unique scarring alopecic patch with pustules, crusts and tufted hairs, most frequently located in the vertex. The onset of symptoms before 25 years of age and the presence of pustules in the alopecic patch were associated with more advanced forms of FD. The used therapies allow transient improvements. The most useful treatments are the combination of oral clindamycin and rifampicin, oral tetracyclines and oral azithromycin.

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Lasers in Onychomycosis

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Laser systems are an emerging device-based therapy for onychomycosis. Onychomycosis is a challenging condition to treat to a complete cure. Device-based therapies offer the opportunity to treat patients in a minimally invasive, clinical setting. This can be advantageous as pharmacotherapy can be contra-indicated in patients undergoing polypharmacy for comorbid conditions. The approval of laser systems for the "temporary increase of clear nail in onychomycosis" by the FDA has raised questions about the fungicidal efficacy of lasers. Laser systems employ narrow spectrum light to achieve selective photothermolysis through the conversion of light energy into heat energy by chromophores in the target. The goal is to target and selectively heat the fungal mass in the nail plate, while antitargeting the surrounding healthy tissue. Laser systems need to optimize the wavelength, temporal pulse format, energy fluence and spot size in order to achieve a safe and fungicidal effect. Current commercial models have resulted in mixed in vitro and clinical trial results. While these laser systems have wavelengths are in the near infrared range for optimal dermal penetration, the specific chromophore targeted in dermatophyte fungi remains unknown. It is possible to achieve a selective effect by optimizing the pulse format to efficiently deliver light energy to known medical chromophores, such as melanin, by ensuring that the pulse is less than the thermal relaxation time of the target. The future optimization of laser system parameters may increase their efficacy in treating onychomycosis. Laser therapy is a promising device-based therapy for onychomycosis, however, the optimization of laser systems and randomized, controlled trials will be needed to determine if laser systems can be fungicidal in onychomycosis.

Dr Gupta is the owner of Mediprobe Research Inc. He has been a clinical trials investigator for Valeant Canada, Bristol Meyers Squibb, Eli Lilly, Merck, Novartis, Janssen and Allergan and has served as a speaker for Valeant Canada and Bayer. FCS is an employee of Mediprobe Research Inc.

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Lichen planopilaris after hair transplantation

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Lichen planopilaris (LPP) is an uncommon inflammatory hair disorder of unknown etiology that results in permanent alopecia and replacement of hair follicles with scar-like fibrous tissue. It is classified as a type of primary scarring alopecia. The precise cause is unknown, although immune dysregulation is implicated in the pathogenesis. Traumatic skin injury (and Koebner phenomenon) has been implicated in some cases. We present 2 patients who came to our clinic for evaluation of poor growth after hair transplantation. Patients' scalps were evaluated using dermatoscopy and skin biopsies were performed. Classical signs of LPP, including perifollicular erythema or perifollicular scale, were present. The diagnosis was LPP in all cases. There are scarce data on the literature about LPP and hair transplant. Our cases highlight the possible association of hair transplant with the development of LPP in some patients. Possible explanations include Koebner phenomenon induced by surgical trauma, an autoimmune process targeting an (as yet, unknown) hair follicle antigen liberated during surgery or perhaps a postsurgery proinflammatory milieu inducing hair follicle immune privilege collapse and follicular damage in susceptible individuals. In our opinion, it's very important that hair transplant surgeons should maintain a high index of clinical suspicion of this condition, and ensure that all patients with alopecia are routinely and systematically examined by scalp dermatoscopy (and skin biopsies if necessary) to screen for signs of scarring alopecia.

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