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Management of Telogen Effluvium: A Survey among Dermatologists and Dermatology Residents of Nepal

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Abstract

Introduction: Telogen effluvium (TE) is a common form of non-cicatricial alopecia, marked by excessive shedding of hairs in the telogen phase. Despite its prevalence, there is no consensus on the best approach to diagnosing, investigating, and managing TE, leading to varying practices among dermatologists. This study aims to understand current practices in Nepal regarding the diagnosis and treatment of TE.

Objectives: To explore the management modalities of TE among the dermatologists and dermatology residents of Nepal

Materials and Methods: An online, questionnaire-based survey was conducted among Nepalese dermatologists and dermatology residents. The questionnaire consisted of twelve multiple-choice questions related to TE. The responses were recorded and analyzed.

Results: A total of 150 responses were recorded, with 53.33% attending 5-10 hair loss patients weekly. Most (94%) diagnosed TE based on history and clinical examination, and 82% commonly ordered thyroid function tests. Iron and vitamin deficiency was identified as the leading cause by 78%, and 53.33% felt no treatment was necessary. Counseling (92.66%) and iron/vitamin supplements (88%) were the most frequent management strategies. TE was reported to have a "moderate" impact on Quality of Life (QoL) by 69.33%, and 50.67% of participants reported a “good level” of satisfaction among patients with the outcomes of their treatments.

Conclusions: Telogen Effluvium is one of the most common causes of hair fall, with a moderate impact on the quality of life. Most dermatologists agree on many aspects of TE management. A consensus management guideline of TE would be handy.

Key words: Alopecia; Dermatologist; Hair loss

Introduction

TE is characterized by premature termination of the anagen phase, with a resultant increase in telogen phase hairs leading to excessive and diffuse hair loss.[1] TE can be acute (lasting less than six months), chronic (lasting six months or more), or chronic-repetitive. In its acute form, hair loss typically starts two to three months after an acute, short-lived triggering event and resolves spontaneously over time. If the triggering event is ongoing, repeated, or not undone; chronic or chronic-repetitive TE ensues.[2]

The true prevalence of TE is uncertain due to numerous subclinical cases and its over representation among hair loss disorders, with data suggesting a notable female predominance, particularly in older women.[3] Various factors have been linked to the causation of TE. The triggers include medications, stress from psychological or physical factors like childbirth, surgery, chronic illnesses, medical conditions, and nutritional issues. Severe protein and calorie restrictions and deficiencies in key micronutrients such as fatty acids, zinc, iron,

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vitamin B7, B12, and vitamin D are often implicated.[4,5] Evaluation includes history focusing on the duration and course of hair loss, identification of triggers two to five months before onset, and often, the presence of trichodynia. The clinical examination may reveal diffuse overall thinning with normal part width, short frontal hairs, and bitemporal thinning. A gentle hair pull test is often positive for club hairs. Trichogram reveals more than 25% of hairs in the telogen phase. A diagnosis of exclusion can be made through trichoscopy, with common features including diffuse hair thinning and empty follicles.[6] Management is directed towards the identification of triggers and addressing them.

Diagnostic and treatment approaches for TE vary widely. This study seeks to emphasize the common practices followed by dermatologists in Nepal in managing TE.

Materials and Methods

It was a descriptive cross-sectional prospective study, compiling data from all practicing dermatologists, including teaching institutes, non-teaching institutes as well as private practitioners, and dermatology residents of Nepal between August 2024 and September 2024. The study was conducted after obtaining approval from the Institutional Review Committee, Institute of Medicine (Ref:- 104(6-11)E2 081/082). The data comprised responses to twelve questions regarding the approach to the management of TE, which was obtained through an online survey, a link of which was attached to the participants' email. Out of 385 dermatologists and dermatology residents of Nepal, 150 participants responded to the questionnaire. The questionnaire included the number of patients consulted per week, causes of TE seen in their practice, approach to the diagnosis of TE, investigations sent to diagnose TE, non-medical and medical management strategies employed, the impact of TE on the quality of life of patients, and patient satisfaction with the management availed. These data were collected through an online survey, a link to which was disseminated through email. The responses were registered and then analyzed.

Results

There was a total of 150 responses to the questionnaire. A total of 83 dermatologists and 67 residents of Nepal participated in the study. The most common non-cicatricial alopecia that was seen in their practice by most of the participants was Telogen Effluvium (68.66%), followed by Alopecia Areata (46%) and Androgenetic Alopecia (42.66%). About half of the participants (53.33%) responded to managing 5-10 TE patients per week, while a smaller portion (19.33%) responded to managing 5 TE patients per week and 10-20 patients per week each. Only 8% recorded managing more than 20 cases of TE per week.

The most common method employed to diagnose TE was through history and clinical examination, as responded by 94% of the participants, followed by a positive hair pull test as recorded by 75.33%, a trichoscopy examination by 26.66%, and blood investigations by 25.33%. Thyroid function tests were the most common blood investigation sent to diagnose TE, as recorded by 82% of participants; while78% sent complete blood count, 70.66% sent serum ferritin, 64% sent vitamin D, 62% sent vitamin B12, and 9.33% sent no blood investigation. Iron and vitamin deficiencies were the most commonly identified cause for TE at 78%, followed by stress as recorded by 70.66%, followed by thyroid disorder at 53.33%, drugs at 18.66%, and no evident cause at 14.66%.

The most common non-medical modality of management given to the patients with TE was counseling by 92.66% of the study population, followed by the use of mild shampoo by 30.66%, avoidance of all or most hair products by 19.33%, placebo by 12.66% and use of meditation and relaxation technique/psychologist consult by 0.66%. Majority, i.e. 88% of respondents most frequently prescribed iron and vitamin supplements as medical management modality, while hair serums were prescribed by 42%, topical minoxidil by 36%, antiandrogens by 7%, and only 1.33% recorded treating TE in accordance to cause.

About half of the dermatologists (53.33%) argued that no interventional treatment was necessary for TE, while Platelet-Rich Plasma/Growth Factor Concentrate (PRP/GFC) treatment was favored by 35.33%, PRP with micro-needling by 26%, mesotherapy by 6%, and light therapy by 4.66%. The majority of the participants (69.34%) agreed that TE had a “moderate” impact on the quality of life (QoL) of patients, 21.33% reasoned it to have a “mild” impact, and only 9.3% responded that TE had a “severe impact” in patients’ quality of life. Among the study participants, 46.67% agreed to “some” extent that patients with TE are exploited with multiple hair products, while 26% agreed to the “full” extent. About half, i.e., 50.66% of dermatologists, agreed that those treated for TE in their practice had a “good” level of satisfaction. In comparison, 42.66% responded to patients having a “low” level of treatment satisfaction. The majority i.e. 60% of dermatologists, recorded a “good” level of effectivity of present modalities of management of TE, 37.34% recorded a “low” level, while only 2.6% recorded a “very good” level of effectivity.

Discussion

In our study, which was conducted among the dermatologists and dermatology residents of Nepal, the most common non-cicatricial alopecia managed by the majority (68.66%) in their practice was TE, with the most (53.33%) of them consulting 5-10 cases of TE per week. In contrast, a multicentric patient-based study conducted by Vano-Galvan et al., suggested androgenetic alopecia to be the most common cause

of non-cicatricial alopecia, followed by alopecia areata and TE, respectively.[7] The most common method to diagnose TE was through history and clinical examination in our study, as responded by 94% of participants. A similar approach is described in a study by Khattab et al., where the author mentioned history as the most essential key in diagnosing TE, followed by a clinical examination as a second step.[8] In our study, thyroid function tests were the most common investigations that were conducted to diagnose TE. However, a patient-based study conducted by Yorulmaz et al., reported serum ferritin level to be the most frequent investigation sent to diagnose TE, followed by thyroid panel, which is consistent with the findings of significantly lower mean ferritin levels in patients with TE in a study by Cheng et al.[9,10]

Stress was recorded as the second most common cause of TE by 70.66% of dermatologists in our study. Congruent with the same, a study by Jafferany et al., reported emotional stress to be a primary trigger and that psychological counseling is the safest and most successful treatment in TE.[11] Most respondents, i.e. 92.66% in our study preferred counseling as the most familiar non-medical management modality as well. Similar were the conclusions of a study by Mysore et al., which stated that no treatment is needed if the underlying cause is addressed and that medical management is largely supportive.[12] The use of mild shampoo was advocated by 30.66% of participants in our study, while Mysore et al., concluded that shampoos do not have a direct role and that the use of a mild shampoo without sodium lauryl sulfate may be considered.[8]

Iron and vitamin supplements were the most common medical treatments provided by 88% of respondents in our study. Similar to this Yorulmaz et al., reported iron replacement to be the most frequently ordered treatment, comprising 37.5% of total prescriptions.[9]

In our study, 35.33% of participants favored PRP/GFC treatment, and 26% favored PRP with micro-needling. In contrast, the study by Mysore et al., concluded that PRP therapy has no place in the management of acute TE, may have some use in chronic TE, and that unwarranted PRP therapies should be avoided in TE patients.[8]

Most of the study participants had a subjective response of TE having a “moderate” impact on the QoL of patients in their practice. A similar finding of “moderate” impact on Dermatology Life Quality Index (DLQI) assessment was reported in both acute and chronic TE in a majority of the study population by Lalu et al., and that DLQI was significantly higher in acute TE in comparison to chronic TE.[13]

About half of the participants in our study subjectively recorded a “good” level of satisfaction in patients with treatment availed. While many agree that no intervention is necessary for TE, Soutou et al., reported that patients with a baseline ferritin level of ≥50 ng/ml were more frequently “very satisfied” with iron supplementation.[14]

The causation is multifactorial, often idiopathic, which would in turn, affect the treatment approach and outcome.

Conclusion

Telogen Effluvium is a prevalent hair loss condition that presents a challenge for dermatologists regarding accurate assessment, diagnosis, and treatment. The survey provided only a brief reference to the varied approaches to managing TE. While some conclusive data on causation and treatment exists, a standardized consensus guideline for the management of TE would be instrumental.

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