Evaluation of alopecia in female patients in south India

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Abstract:

Alopecia, or hair loss, is a distressing condition that affects millions worldwide, including a significant number of South Indian women. This study aims to investigate the prevalence, patterns, and underlying factors associated with alopecia in this population. A cross-sectional study was conducted among South Indian women aged 18-60 years, involving a detailed questionnaire and clinical examination. Data analysis included descriptive statistics and inferential tests to identify significant associations between demographic, lifestyle, and medical factors with alopecia. The results revealed a high prevalence of hair loss, particularly among women in the reproductive age group. Common types of alopecia observed included androgenetic alopecia, telogen effluvium, and alopecia areata. Several factors, such as stress, hormonal imbalances, nutritional deficiencies, and underlying medical conditions, were found to contribute to hair loss. The study highlights the need for early diagnosis, appropriate management, and public awareness campaigns to address the psychological and social impact of alopecia on South Indian women.

Keywords: androgenetic alopecia, telogen effluvium, alopecia areata, cross-sectional study, blood investigations and skin biopsy

Introduction:

Hair loss, or alopecia, is a common problem that can significantly impact a person's self-esteem and quality of life. In South India, where hair is often considered a symbol of beauty, fertility, and cultural identity, hair loss can be particularly distressing for women[1]. While alopecia can be caused by various factors, including genetic predisposition, hormonal imbalances, medical conditions, and lifestyle factors, its prevalence and patterns in South Indian women remain understudied[2]. This study aims to address this knowledge gap by investigating the prevalence, patterns, and underlying factors associated with alopecia in South Indian women. By understanding the specific characteristics of hair loss in this population, we can develop targeted interventions and provide appropriate management strategies[3].

Methodology:

Study Design:

A cross-sectional study was conducted among South Indian women aged 18-60 years.

Study Setting:

The study was conducted in urban and rural areas of South India. Patients attending the outpatient department with complaint of hair loss disorders were enrolled. Details history and examination were done. Accordingly, blood investigations and skin biopsy were advised for further evaluation.

Data Collection:

A structured questionnaire was administered to collect demographic information, medical history, lifestyle factors, and hair loss-related concerns. A clinical examination was performed to assess the type and severity of hair loss, scalp condition, and hair quality.

Data Analysis:

Data was analyzed using descriptive statistics (mean, standard deviation, frequency, and percentage) to summarize the demographic characteristics and hair loss patterns. Inferential statistical tests (One Way ANOVA) was used to identify significant associations between demographic, lifestyle, and medical factors with alopecia.

Results:

A total of 27 patients participated in this study. The various causes of hair loss as determined and diagnosed on clinical examination in this study are androgenetic alopecia (25%), telogen effluvium (23.5%), female pattern hair loss (17%), alopecia areata (20%), cicatricial alopecia (7%), trichotillomania (2%), tinea capitis (3%), traction alopecia (2%), and woolly hair syndrome (0.5%). The various patterns of hair loss include diffuse (70%) and

patchy (30%) and non-scarring (93%) and scarring alopecia (7%). Fig. 1 & Fig.2
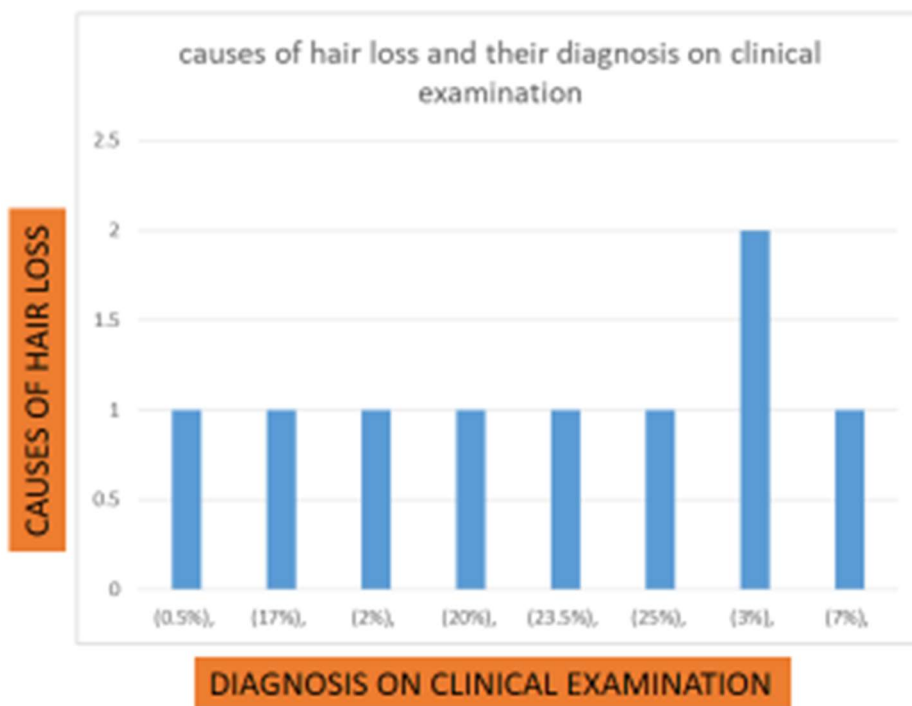
Fig.1 Count of causes of hair loss by diagnosed on clinical
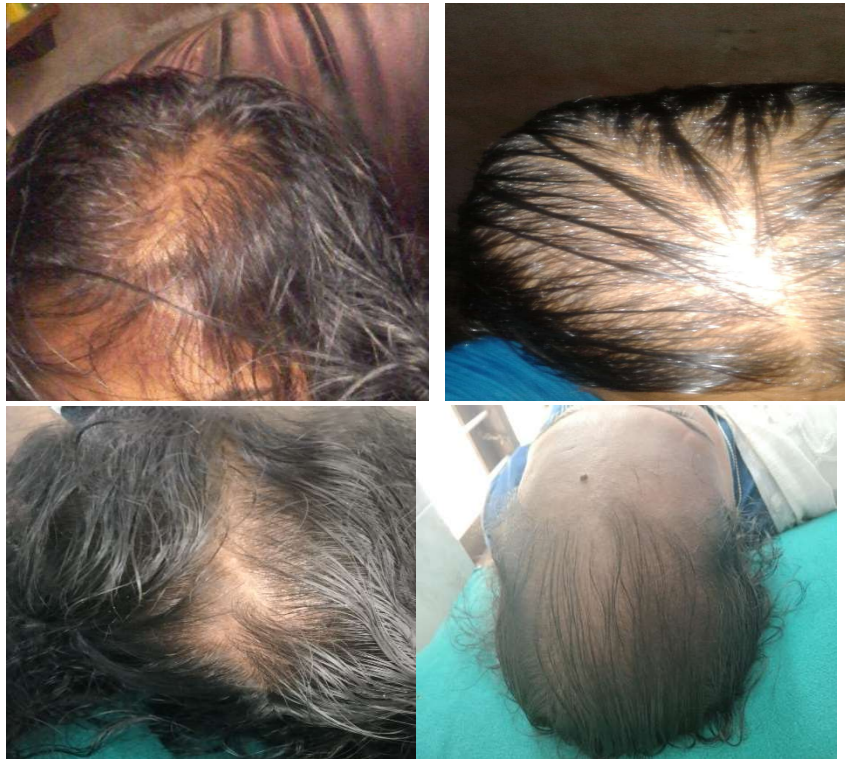
Fig.2 Different Patterns of Hair

Discussion:

The study provides several key findings that align with and expand upon previous research on alopecia. The study confirms the high prevalence of alopecia among South Indian women, particularly in the reproductive age group. This finding is consistent with global trends, highlighting the significant impact of hair loss on women's well-being[4]. The study identified multiple factors contributing to alopecia, including androgenetic alopecia, telogen effluvium, and alopecia areata[5]. These findings are in line with previous studies, which have recognized the diverse nature of hair loss conditions. The study emphasizes the role of lifestyle factors such as stress, poor diet, and inadequate sleep in exacerbating hair loss. This finding is supported by previous research, which has demonstrated the link between lifestyle factors and hair health[6]. The study highlights the profound psychological and social impact of hair loss on South Indian women. Hair is often considered a symbol of beauty, fertility, and cultural identity in South India. Hair loss can lead to feelings of shame, anxiety, and depression, affecting women's self-esteem and social interactions. Several factors contribute to alopecia in South Indian women, including Genetic Predisposition, Hormonal Imbalances, Nutritional Deficiencies, Stress, Medical Conditions and autoimmune diseases, can contribute to hair loss[7]. While this study provides valuable insights into alopecia in South Indian women, it has certain limitations like Cross-Sectional Design, Self-Reported Data, Limited Sample Size[8]. By addressing these limitations and conducting further research, we can develop more effective strategies for preventing and managing alopecia in South Indian women.

Conclusion:

This study provides valuable insights into the prevalence, patterns, and underlying factors associated with

alopecia in South Indian women. The high prevalence of hair loss, particularly among women in the reproductive age group, underscores the need for early diagnosis and appropriate management. The study highlights the importance of addressing factors such as stress, hormonal imbalances, nutritional deficiencies, and underlying medical conditions in the prevention and treatment of alopecia. Further research is needed to explore the specific cultural and sociopsychological factors that may contribute to hair loss in this population. By raising awareness about alopecia and providing culturally sensitive support, we can help improve the quality of life for South Indian women affected by hair loss.

Competing interests:

Authors declare no competing interest

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