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CHARACTERISTICS OF PATIENTS WITH TINEA CAPITIS AT PROF. DR. I.G.N.G. NGOERAH CENTRAL GENERAL HOSPITAL FROM 2020 TO 2024.

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ABSTRACT

Background: Tinea capitis is a dermatophyte infection of the scalp common in prepubertal children and can lead to alopecia. Retrospective studies are needed to describe the demographics, clinical profile, and treatment to improve prevention and management. Data for this study were obtained from patient medical records at RSUP Prof. Dr. I.G.N.G. Ngoerah Denpasar for the period 2020–2024.
Methods: This study was a descriptive observational cross-sectional study using medical record data of patients treated at Prof. Dr. I.G.N.G. Ngoerah Central General Hospital Denpasar during 2020-2024. Based on the selection results according to the inclusion and exclusion criteria, 41 samples were analyzed.
Results: Among the 41 samples analyzed, most of patients were 5-9 years old (57,4%). Cases were more frequent in females (58.5%) than males (41.5%). The most common clinical type was grey patch (21 cases; 51.2%). Wood's lamp examination most often showed green fluorescence (29.3%); ectothrix spores were observed in 39.0% of cases. The most frequent dermoscopic finding was broken hair (17.1%). The predominant risk factor was pet ownership, present in 12 patients (29.3%). The dermatophyte *Trichophyton rubrum* had the highest isolation rate among dermatophytes (26.8%). Combination therapy with systemic and topical agents was administered to 40 patients (97.6%).
Conclusion: The characteristics of patients with tinea capitis at RSUP Prof. Dr. I.G.N.G. Ngoerah Denpasar during 2020–2024 indicate the disease most commonly affects prepubertal children, is dominated by the grey patch clinical type, and *Trichophyton rubrum* is the most frequent causative agent. The majority of patients received combination therapy.
Objective: To determinan the characteristics of patients with tinea capitis at Prof. Dr. I.G.N.G. Ngoerah Central General Hospital Denpasar for the period 2020-2024.

Keywords: grey patch, characteristics, *Trichophyton rubrum*, tinea capitis, dermoscopy.

INTRODUCTION

Indonesia is a tropical country with a high prevalence of various infectious diseases, one of which is fungal infection (mycosis). Mycoses are caused by a variety of fungal species and can affect multiple body sites. Based on the site of infection, mycoses are classified into three types: superficial, subcutaneous, and systemic. Superficial mycoses are the most common, and these infections are typically caused by dermatophytes. Dermatophytes are fungi that infect the keratinized layers of the skin, hair, and nails, causing dermatophytosis. The dermatophyte genera most frequently encountered are Microsporum, Trichophyton, and Epidermophyton, which are the principal agents of dermatophytosis in humans.[1]

Dermatophytosis that penetrates the skin and elicits inflammation is referred as tinea. The clinical designation of tinea reflects the anatomical site of infection. Tinea may occur at various body sites, including the scalp, where it is termed tinea capitis.[2] Tinea capitis is a fungal disease of the scalp that primarily infects the hair follicle. Clinically, tinea capitis is categorized as

either inflammatory or non-inflammatory. The non-inflammatory type typically does not produce scarring alopecia, whereas the inflammatory type can lead to kerion painful nodules containing pus and resultant scarring alopecia. Clinical presentations of tinea capitis are further classified according to the infecting dermatophyte into grey patch, black dot, kerion, and favus types.[3]

In 2019, tinea capitis was the most dominant clinical manifestation in Ethiopia, with a prevalence of 53.4%, followed by tinea corporis at 30.5% and tinea unguium at 16%.[4] The condition is also endemic in several developing countries, including Indonesia. The prevalence of tinea capitis in Indonesia was 0.53% at Cipto Mangunkusumo Hospital (RSCM) during 2005–2010 among all dermatophytosis cases. During 2014–2016 at Dr. Soetomo General Hospital, Surabaya, the proportion of cases rose to 6.4% %,[5] and the prevalence of tinea capitis at Prof. Dr. I.G.N.G. Ngoerah Central General Hospital, Denpasar, during 2017–2018 reached 8.1%. Poor personal hygiene, densely populated residential environments, and low socioeconomic status increase the incidence of tinea capitis.[6]

Epidemiologically, tinea capitis most commonly affects children aged 3 to 14 years, with peak incidence between 3 and 7 years of age.[7] Transmission occurs via direct contact with an infected individual's skin, through infected shed hair, or indirectly via fomites shared with an infected person. The increasing prevalence of household pets provides an additional transmission reservoir, either through direct contact with infected animals or indirectly via infected animal hair on clothing. Use of communal hair-grooming services may also facilitate pathogen transmission through non-sterile, shared grooming implements.[8] Common clinical findings in patients include alopecia, extensive erythema, and scaling.[1]

Despite high incidence rates, optimal therapy is often limited; treatment courses tend to be prolonged typically 6–8 weeks frequently combined with topical agents to reduce contagion and limit spread.[9] The prolonged duration of therapy is attributable not only to the fungistatic characteristics of some treatments but also to the high risk of transmission, particularly among children and immunocompromised individuals. In light of these considerations, detailed research is necessary to identify effective prevention strategies and to raise public awareness regarding the importance of personal hygiene in reducing the incidence of tinea capitis. This rationale underlies the present study on the characteristics of patients with tinea capitis at Prof. Dr. I.G.N.G. Ngoerah Central General Hospital, Denpasar, for the period 2020–2024.

OBJECTIVE

To determinan the characteristics of patients with tinea capitis at Prof. Dr. I.G.N.G. Ngoerah Central General Hospital Denpasar for the period 2020-2024.

METHODS

This study was an observational descriptive study with a cross-sectional design aimed at describing the characteristics of patients with tinea capitis using medical record data. The data were retrospective and were obtained from the medical records of tinea capitis patients registered in the Medical Records Unit of the Division of Dermatology and Venereology at RSUP Prof. Dr. I.G.N.G. Ngoerah, Denpasar, for the period 2020–2024. Fieldwork was conducted over nine months, from January to September 2025.

The target population comprised all patients diagnosed with tinea capitis who received care at RSUP Prof. Dr. I.G.N.G. Ngoerah, while the accessible population included all tinea capitis patients recorded in the Medical Records Unit of the Division of Dermatology and Venereology at RSUP Prof. Dr. I.G.N.G. Ngoerah during 2020–2024 who met the inclusion criteria. The study sample consisted of all tinea capitis patients aged 0–18 years who fulfilled the inclusion and exclusion criteria. A total-sampling technique was employed, meaning that all subjects meeting the criteria were included in the analysis.

Inclusion criteria were: patients with a diagnosis of tinea capitis aged 0–18 years recorded during the 2020–2024 period and possessing complete medical records. Exclusion criteria were: tinea capitis patients from the same period whose medical records were incomplete and therefore unsuitable for analysis.

Collected variables included age (classified as infants/toddlers 0–4 years, children 5–9 years, and adolescents 10–18 years), sex (male or female), clinical type of tinea capitis (grey patch, kerion, black dot, favus), risk factors (pet ownership, playing in soil, contact with stray animals, haircut at a salon, household contact, and sharing personal items), adjunctive examinations (KOH examination with ectothrix or endothrix pattern; Wood's lamp examination with yellow-green fluorescence, green fluorescence, or non-fluorescent result; fungal culture with species identification of Microsporum and Trichophyton; and dermoscopy with findings such as broken hair, comma hair, corkscrew hair, perifollicular scaling, scaling, and morse-code hair), as well as initial therapy prescribed at the first visit (topical and systemic agents). All variables were extracted from descriptions and entries recorded in the medical records.

Study instruments comprised a data extraction form, with collected data entered into Microsoft Excel 2021 for data management, and the Statistical Package for the Social Sciences (SPSS) version 30.0 used for data processing and analysis. Data collection procedures were carried out after the research proposal received approval and ethical clearance was issued by the Research and Development Ethics Committee of the Faculty of Medicine 2025.01.1.0271 Udayana University; subsequently, the investigators applied for and obtained medical-record access permission from the Director of RSUP Prof. Dr. I.G.N.G. Ngoerah prior to record retrieval.

Data processing began with editing, coding, data entry, validation, data cleaning, and final correction to ensure completeness and consistency. Data analysis was conducted univariately with a 95% confidence level to describe the frequency distribution of the collected variables. Results are presented descriptively in narrative form and in tables showing the proportions and percentages of each variable category.

RESULT

Sample Characteristics

This study involved 41 patients with tinea capitis at RSUP Prof. Dr. I.G.N.G. Ngoerah Denpasar for the period

January 2020–December 2024 who met the inclusion and exclusion criteria.

Table 1 Characteristics of Patients with Tinea Capitis

Characteristic	Frequency (n)	Percentage (%)
Age (years)		
0–4	9	22.2
5–9	25	61.0
10–14	7	17.1
Sex		
Male	17	41.5
Female	24	58.5

Table 1 describes the sample characteristics of patients with tinea capitis treated at RSUP Prof. Dr. I.G.N.G. Ngoerah Denpasar during 2020–2024. The majority of patients were aged 5–9 years (25 patients; 61.0%), followed by 0–4 years (9 patients; 22.2%) and 10–14 years (7 patients; 17.1%). By sex, most patients were female (24 patients; 58.5%), while 17 patients (41.5%) were male.

Table 2 Tinea Capitis Type

Type	Frequency (n)	Percent (%)
Grey patch	21	51.2
Kerion	20	48.8
Black dot	0	0
Favus	0	0

Table 2 describes the clinical types of tinea capitis. Of the total 36 recorded cases of tinea capitis, the most frequent type was grey patch (21 cases; 51.2%), followed by kerion (20 cases; 48.8%).

Table 3 Risk Factors for Tinea Capitis

Risk factor	Frequency (n)	Percent (%)
Has pet(s)	12	29.3
Playing in soil	2	4.9
Playing with stray animals	4	9.8
Haircut at salon	6	14.6
Household contact	2	4.9
Has pet(s) and plays in soil	3	7.3
Has pet(s) and shares personal items	2	4.9
No data	10	24.4

Table 3 shows that the most frequently recorded risk factor was pet ownership (12 cases; 29.3%). A substantial proportion of records lacked risk-factor data (10 cases; 24.4%). Other recorded risk factors included contact with stray animals (4 cases; 9.8%), haircuts at salons (6 cases; 14.6%), playing in soil (2 cases; 4.9%), pet ownership combined with playing in soil (3 cases; 7.3%), pet ownership combined with sharing personal items (2 cases; 4.9%), and household contact with an infected person (2 cases; 4.9%).

Table 4 KOH Test Results

KOH result	Frequency (n)	Percent (%)
Ectothrix spores	16	39.0
Ectothrix and endothrix spores	4	9.8
Single spore	1	2.4
Long branched hyphae	1	2.4
Negative	16	39.0
Examination not performed	3	7.3

Table 4 describes KOH test findings. The most common KOH result was ectothrix spores (16 patients; 39.0%), followed by combined ectothrix and endothrix (4 patients; 9.8%). Long branched hyphae and single-spore findings were each observed in

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1 patient (2.4%). Sixteen patients (39.0%) had negative KOH results, and 3 patients (7.3%) did not undergo KOH testing.

Table 5 Wood's Lamp Examination Results

Wood's lamp result	Frequency (n)	Percent (%)
Yellow–green fluorescence	7	17.1
Green fluorescence	12	29.3
Non-fluorescent	7	17.1
Examination not performed	15	36.6

Table 5 shows Wood's lamp findings: 12 patients (29.3%) exhibited green fluorescence and 7 patients (17.1%) exhibited yellow–green fluorescence, findings that may indicate predominance of *Microsporum* spp. Conversely, 7 patients (17.1%) were non-fluorescent, a pattern more clinically consistent with *Trichophyton* spp. or other non-fluorescent conditions. Wood's lamp examination was not performed in 15 patients (36.6%).

Table 6 Culture Results

Culture result	Frequency (n)	Percent (%)
Trichophyton rubrum	11	26.8
Trichophyton tonsurans	2	4.9
Microsporum canis	8	19.5
Trichophyton mentagrophytes	4	9.8
Other species (Aspergillus sp., Candida sp., Epidermophyton floccosum)	7	17.1
Examination not performed	9	22.0

Table 6 describes fungal culture results. The most frequently isolated species was *Trichophyton rubrum* (11 cases; 26.8%), followed by *Microsporum canis* (8 cases; 19.5%). Other Trichophyton species included *T. tonsurans* (2 cases; 4.9%) and *T. mentagrophytes* (4 cases; 9.8%). A group of other species *Aspergillus sp*., *Candida sp*., and *Epidermophyton floccosum* accounted for 7 cases (17.1%), suggesting presence of non-dermatophyte species or possible contamination/colonization. Culture was not performed in 9 patients (22.0%).

Table 7 Dermoscopy Findings

Dermoscopy finding	Frequency (n)	Percent (%)
Broken hair	7	17.1
Comma hair	3	7.3
Corkscrew hair	1	2.4
Perifollicular scaling	1	2.4
Scale	1	2.4
Broken hair and comma hair	6	14.6
Broken hair and morse code hair	1	2.4
Broken hair, morse code hair, perifollicular scaling	2	4.9
Comma hair, corkscrew hair, scale	1	2.4
Examination not performed	18	43.9

Table 7 summarizes dermoscopy results. Of 41 patients, dermoscopy was performed in 23 patients; 18 patients (43.9%) did not undergo dermoscopy. The most frequent dermoscopic finding was broken hair (7 patients; 17.1%), followed by the combination of broken hair and comma hair (6 patients; 14.6%). Other individual findings included comma hair (3 patients; 7.3%), corkscrew hair (1 patient; 2.4%), perifollicular scaling (1 patient; 2.4%), and scale (1 patient; 2.4%). Combinations observed included broken hair with morse-code hair and perifollicular scaling (2 patients; 4.9%), broken hair with morse-code hair (1 patient; 2.4%), and comma hair with corkscrew hair and scale (1 patient; 2.4%).

Table 8 Treatment for Tinea Capitis

Treatment	Frequency (n)	Percent (%)
Systemic and topical	40	97.6
Systemic only	1	2.4

Table 8 describes therapies received: the vast majority of patients received combined systemic and topical treatment (40 cases; 97.6%), while systemic therapy alone was used in 1 case (2.4%).

DISCUSSION

Characteristics of Patients with Tinea Capitis

In this study, 41 patients with tinea capitis from the 2020–2024 period met the inclusion criteria. Demographic characteristics of the sample showed that, of the 41 patients, the majority were aged 5–9 years (25 patients; 61.0%). This finding is consistent with the theory that prepubertal age groups are more frequently affected due to physiological and behavioral factors characteristic of this age range. Prior to puberty, the sebaceous glands of the scalp are immature and sebum production is low; sebum at this stage lacks long-chain saturated fatty acids that exert fungistatic effects.[10] Tropical environmental conditions and child-rearing practices particularly among prepubertal children also warrant consideration. Bali's tropical climate, characterized by high temperature and humidity, is highly conducive to dermatophyte growth.[11] Dermatophytes thrive in warm, humid environments, making tropical regions such as Bali vulnerable to higher incidence of these infections. Poor sanitation and high housing density facilitate dissemination of fungal spores; therefore, maintaining hygiene and sanitation is an important preventive measure against tinea capitis transmission.[12]

A similar study conducted in Indonesia by Hidayah et al. reported concordant results,[13] finding a predominance of cases among children with a peak frequency in the 5–9 year age group (35.8%).[13] However, an earlier study at RSUP Prof. Dr. I.G.N.G. Ngoerah Denpasar by Gopal reported different age distribution, with the majority of cases in the 1–5 and 6–10 year groups (each 43.75%).[15]

Regarding sex distribution, tinea capitis patients at RSUP Prof. Dr. I.G.N.G. Ngoerah during 2020–2024 were nearly balanced: 17 males (41.5%) and 24 females (58.5%). This finding may be explained by biological mechanisms principally the influence of progesterone, which has been reported to exhibit antifungal effects or to inhibit dermatophyte growth potentially rendering females relatively less susceptible to scalp fungal infections. Behavioral factors may also contribute: boys commonly engage in more outdoor play, have greater contact with soil or pets, and may pay less attention to hair hygiene or may share personal grooming items such as combs and hats more frequently. These behaviors can lead to a somewhat higher incidence of tinea capitis among boys.[6] Nevertheless, the literature emphasizes that hormonal effects from childhood represent a primary biological explanation for the higher frequency of tinea capitis in males.[16]

A related dermoscopy study at RSUP Prof. Dr. I.G.N.G. Ngoerah (2022–2024) reported 65.3% of cases in female patients and 61.9% in male patients. Internationally, Xia et al. reported a slight male predominance in their cohort (201 males (44.28%) vs. 198 females (43.61%).[17] Gopal et al. at RSUP Prof. Dr. I.G.N.G. Ngoerah also reported a male predominance (18 males; 56.25%) compared with females (14; 43.75%), although the ratio was nearly balanced.[15]

Tinea Capitis Type

The study results indicated that the dominant clinical type of tinea capitis at RSUP Prof. Dr. I.G.N.G. Ngoerah Denpasar in 2020–2024 was grey patch (21 cases; 51.2%). Scientifically, the predominance of grey patch is explained by the infecting species and the host immune response. Infections caused by *Microsporum audouinii* or *Trichophyton tonsurans* typically elicit little or no inflammatory response, producing grey, scaly patches with noninflammatory alopecia characteristic of the grey patch type. Conversely, *Microsporum canis* infections commonly provoke a stronger immune response, resulting in erythematous, pus-filled lesions (kerion).[18]

Field studies have similarly shown that noninflammatory grey patch lesions are the most frequent presentation of tinea capitis, occurring far more often than inflammatory forms such as kerion. A retrospective study at RSUP Prof. Dr. I.G.N.G. Ngoerah Denpasar reported that, among 42 cases, 78.6% were grey patch and only 11.9% were kerion.[19] A similar study in India by Narendra Gajula et al. found grey patch in 36.9% of 65 cases and kerion in 18.5%.[20]

Risk Factors for Tinea Capitis

The present study found that the most common recorded risk factor was pet ownership (29.3%). Tinea capitis predominantly affects children in hot–humid tropical regions. Indonesia's tropical climate and high humidity favor dermatophyte proliferation. Transmission of dermatophytes affecting the scalp may be anthropophilic, zoophilic, or geophilic. Humid environmental conditions and high population density facilitate fungal spore transmission.[21]

Direct contact with animals such as cats or dogs represents a principal risk factor; these animals frequently harbor zoophilic dermatophytes such as *Microsporum canis*, which can be transmitted to humans via direct contact or indirectly via animal hair attached to clothing. Likewise, children who play in soil are at increased risk because soil is a natural reservoir for geophilic dermatophytes; studies report that children who frequently play in soil are more susceptible to acquiring spores from the environment.[22]

Sharing personal grooming items also substantially contributes to spread. Indonesian studies indicate that infections commonly occur within households or school groups sharing combs or towels. International literature emphasizes that patients should avoid sharing personal items to prevent transmission.[22] Haircutting or shaving at salons may be an additional source of infection: shared scissors, combs, barber chairs, or other nonsterile tools can transmit spores between customers. Poor personal hygiene and low environmental sanitation levels further increase infection risk.[21]

Several studies support a strong association between pet ownership and tinea capitis occurrence. Ervianti et al. (2022) reported that contact with cats is a major risk factor, as *M. canis* from cats and dogs is a common zoophilic pathogen transmitted to humans.[24]

Several recent studies have highlighted hair salons and barbershops as potential sources of tinea capitis transmission

through contaminated hair-cutting equipment. For instance, Yusha'u et al. (2025) conducted a survey in 20 hair salons in Kano, Nigeria, and reported that 83.3% of sampled tools, including combs, clippers, and brushes, were contaminated with dermatophytes.[8] Vivanet et al. (2025) reviewed tinea capitis cases in young men post-barbershop shave, identifying poor sanitation practices and contaminated shaving equipment as key risk factors.[22]

Supporting Examination Results for Tinea Capitis

Most patients who underwent KOH examination demonstrated ectothrix spores (16 cases; 39.0%). KOH preparation of hair or scalp scrapings in tinea capitis commonly reveals branching hyphae and arthroconidia either coating the hair shaft (ectothrix pattern) or located within the hair shaft (endothrix pattern). Ectothrix infections are typically caused by *Microsporum* species or zoonotic *Trichophyton* species such as *T. verrucosum*, whereas endothrix infections are characteristic of anthropophilic *Trichophyton* species.[25]

Similar studies report that KOH-positive preparations in pediatric populations particularly in regions with high pet exposure most frequently show ectothrix spores. The occurrence of mixed ectothrix and endothrix patterns in some cases has been documented and may reflect morphological variation of the fungus or limitations of microscopic visualization from a single specimen.[25]

Wood's lamp examination in this study predominantly demonstrated green fluorescence in 12 patients (29.3%). Wood's lamp is a commonly used adjunct diagnostic modality, particularly for detecting *Microsporum* infections that exhibit characteristic fluorescence. *Microsporum* species typically produce yellow–green fluorescence, while *Trichophyton* species commonly do not fluoresce. Nevertheless, Wood's lamp has limitations because a negative result does not exclude tinea capitis; additional tests such as fungal culture and KOH are still required for definitive diagnosis.[13]

Various tropical-region studies, particularly in Indonesia, report differing proportions of Wood's lamp positivity among tinea capitis patients. Venitarini et al. (2019) reported 66.7% positive fluorescence, whereas Noviannisa et al. (2022) found 90% fluorescence (mostly yellow–green) in a cohort of 10 patients.[10]

In this study, culture was performed in 32 patients. The dominant cultured organisms were *Trichophyton rubrum* in 11 patients (26.8%), followed by *Microsporum canis* in 8 patients (19.5%). Fungal culture is the etiologic confirmation method for tinea capitis because it permits species-level identification. Culture is typically performed on Sabouraud dextrose agar and is considered the gold standard despite requiring a relatively long incubation period to yield results.

Several studies emphasize the utility of culture in atypical clinical presentations, equivocal direct microscopic findings, or suboptimal therapeutic response. Limitations of culture include false-negative results due to inadequate sampling technique, prior antifungal use, and the long turnaround time

An Indonesian study reported culture results from 42 tinea capitis cases showing predominance of *T. tonsurans* (27.8%), followed by *T. mentagrophytes* and *M. audouinii* (each 19.4%), *T. rubrum* (15.6%), and *M. canis* (15.6%). Only one culture grew *T. violaceum* (3.1%) and one grew a nondermatophyte (*Aspergillus* sp., 3.1%). The authors interpreted *Aspergillus* as a potential pathogen rather than a mere contaminant, citing literature that *Aspergillus* can cause scalp infection in cases unresponsive to conventional therapy.[19]

A multicenter international study in Germany revealed a similar pattern with predominance of anthropophilic dermatophytes; *T. rubrum* was most frequent overall (66.3%), while *T. tonsurans* emerged as the leading cause in specific cohorts.[27]

Dermoscopy was performed in 23 patients. The predominant dermoscopic finding was broken hair in 7 patients (17.1%), followed by the combination of broken hair and comma hair in 6 patients (14.6%). Dermoscopy was not performed in 18 patients. Each trichoscopic pattern has characteristic diagnostic significance: broken hair signifies damage to the hair shaft from infection; comma hair and corkscrew hair are considered characteristic for *Trichophyton* infections; morse-code hair is more typical for *Microsporum* infections. Perifollicular and diffuse scaling reflect accumulation of scales due to dermatophyte-induced inflammation.

Combinations of these patterns substantially aid diagnosis. Kumar et al. (2020) reported diagnostic sensitivity of 98.97% when combining perifollicular scaling, comma hair, broken hair, and black dots.[28] An Indonesian study by Erline et al. (2025) reported broken hair as the most frequent dermoscopic pattern (46.1%). Therefore, dermoscopy is regarded as a strong diagnostic indicator for tinea capitis.[29]

Treatment of Tinea Capitis

The study showed that the majority of tinea capitis patients at RSUP Prof. Dr. I.G.N.G. Ngoerah Denpasar received combination therapy with systemic and topical antifungals (97.6%). This finding aligns with practice at RSUP Dr. Soetomo Surabaya, where all pediatric patients were prescribed oral griseofulvin with ketoconazole shampoo as topical adjuvant. Management of tinea capitis typically involves combined systemic and topical antifungal therapy. Systemic agents such as griseofulvin or terbinafine are required because the infection resides within the hair follicle and topical agents alone cannot reliably penetrate to eliminate the causative organism. Topical agents such as ketoconazole shampoo are recommended as adjunctive therapy to reduce spore dissemination during initial treatment.[10]

This combined-treatment strategy has been consistently applied in clinical practice. A major challenge in combined therapy particularly with oral agents is medication adherence. Griseofulvin requires prolonged administration, typically a minimum of 6–8 weeks and in some cases 3–4 months at prescribed doses; its syrup formulation is often bitter. Therefore, parental involvement and education are essential to ensure completion of the full course of therapy despite early clinical improvement, thereby optimizing treatment outcomes.[31]

CONCLUSSION

Based on the study findings on the characteristics of patients with tinea capitis at Prof. Dr. I.G.N.G. Ngoerah Central General Hospital, Denpasar, during 2020–2024, most cases occurred in the 5–9-year age group (25 patients; 61.0%), with a predominance of female patients (24 patients; 58.5%). The most frequently observed clinical presentation was the grey patch type, identified in 21 cases (51.2%).

Among supporting investigations, the potassium hydroxide (KOH) examination most commonly demonstrated an ectothrix spore pattern (16 cases; 39.0%). Wood's lamp examination most frequently revealed green fluorescence (12 cases; 29.3%), a finding suggestive of infection by fluorescent dermatophytes, particularly *Microsporum spp*. Fungal culture results indicated that *Trichophyton rubrum* was the most prevalent etiologic agent, isolated in 11 patients (26.8%). Dermoscopic evaluation, performed in 23 patients, most commonly showed broken hair in 7 cases (17.1%), with the combination of broken hair and comma hair observed in 6 cases (14.6%). The single most frequent dermoscopic pattern was broken hair.

The most frequently documented risk factor was pet ownership (12 cases; 29.3%), followed by haircuts at salons (6 cases; 14.6%), highlighting potential transmission through zoonotic and fomite-mediated routes. Regarding initial management, the vast majority of patients received combination therapy comprising systemic antifungal agents with topical antifungals as adjunctive treatment (40 cases; 97.6%), whereas 1 patient (2.4%) received systemic therapy alone.

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