



A STUDY OF THE PATTERN OF DERMATOLOGICAL AND SEXUALLY TRANSMITTED DISEASES IN ADOLESCENTS AND YOUNG ADULTS IN EASTERN UTTAR PRADESH

Dermatology

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ABSTRACT

Introduction: Adolescents and young adults are high-risk groups for skin and sexually transmitted diseases, especially in developing or low-income countries. The present study was conducted to give an insight on the various dermatological and sexually transmitted diseases in adolescents and young adults in the age group of 10-24 years. **Materials and Methods:** This is a retrospective study where all the records of the patients who presented at a speciality clinic for adolescents and young adults were assessed. Those patients who consulted the treating dermatologist were included in the study. The records of 422 patients between the ages of 10 and 24 years, attending the tertiary care centre in Eastern Uttar Pradesh during 2020 and 2021 were included in this retrospective study. **Results:** Out of 422 patients, there were 164 males and 258 females. The mean age of all patients was found 19.433.57 years. The most common dermatological disease was Dermatophytic fungal infections seen in 67(15.8%) patients followed by chronic Idiopathic Urticaria in 57(13.5 %) patients followed by acne Vulgaris in 46(10.9%) patients. Among infestations, Scabies was seen in 41 (9.7%) patients. The next common dermatoses were Post Inflammatory Hyperpigmentation seen in 40 patients. In hair disorders, telogen effluvium was the most common manifestation seen in 39(9.2%) patients. Among sexually transmitted infections (STI), Vulvovaginal Candidiasis was diagnosed in 19 patients and genital warts in one male patient. **Conclusion:** Fungal infections are common in adolescents and young adults. Acne Vulgaris is also common in this age group.

KEYWORDS

Adolescents, Dermatology, Skin Diseases, Acne, STI

INTRODUCTION

Adolescence is a critical time in the physiological and psychosocial development of a person. Adolescence represents the period following the onset of puberty, during which a young person develops from a child into an adult. ^[1] The World Health Organization defines adolescence as 10–19 years of age. ^[2] However, the literature expands this to 10–24 years of age which better represents the population in need of specialist care. After analyzing 18 prevalence studies, the WHO stated that skin problems are highly prevalent (21–87%) in the general population of developing nations. ^[3] But Skin conditions are common in young people, with acne vulgaris alone affecting approximately 85% of young adults aged 12–25 years old according to the Global Burden of Disease study. The psychological impact of visible skin conditions on adolescents is well documented and they provoke feelings of embarrassment and concerns about body image which negatively impacts self-esteem. ^[4]

The prevalence of skin diseases among adolescents had been reported by some studies conducted in India between 25% to 85%. ^[5-7] But very few studies have focused on the skin and sexually transmitted diseases among children, adolescents, and young adults belonging to the Eastern part of Uttar Pradesh in India. Hence, the present study was conducted to give an insight into the various dermatological and sexually transmitted diseases in children, adolescents and young adults in the age group of 10-24 years.

MATERIAL AND METHODS

The present study is a retrospective study where the records of all the patients at a specialty clinic for adolescents and young adults with dermatological diseases were reviewed over a period of two years from 2020-2021. The study was conducted at the Centre of Excellence for Adolescent Health in collaboration with the MAMTA Foundation in Sir Sunderlal Hospital, Institute of Medical Sciences, Banaras Hindu University, Varanasi. The patients in the age group of 10-24 years with dermatological diseases were included in the study.

The records were analyzed for dermatological diagnosis and special

investigations if advised were retrieved from the records. The treating dermatologist records the clinical examination findings in all cases along with the diagnosis which was used in the data analysis.

The data was organized using MS Excel (version 2007) and exported to IBM SPSS (trial version 20) for statistical analysis. Descriptive analysis was done using the frequency, percentage, mean and standard deviation.

RESULTS

Table 1 : Characteristics of the participants (N=422)

Characteristics	Male		Female		Total	
	Number	%	Number	%	Number	%
Age Groups (years)						
10-15	27	16.5	32	12.4	59	14.0
16-19	64	39.0	68	26.4	132	31.3
20-24	73	44.5	158	61.2	231	54.7
Mean Age (years)	18.553.46		19.983.53		19.433.57	
Education						
School going	75	45.7	57	22.1	132	31.3
College going	71	43.3	144	58.8	215	50.9
School dropout	13	7.9	46	17.8	59	14.0
Never gone school	5	3.0	11	4.3	16	3.8
Residency						
Rural	96	58.5	117	45.3	213	50.5
Urban	68	41.5	141	54.7	209	49.5

The total number of patients included in the study was 422. Table 1 describes the age distribution and educational enrolment of the patients. The mean age of the total patients was 19.43+3.57 years. Where 164 patients were males and 258 were females.

Most of the patients 215 (50.9%) were college-going students. There

were 14% of patients school dropouts followed by 3.8% who had never gone to school. The majority of the patients (50.5%) belonged to rural areas.

The table 2 describes about more common dermatological diseases and sexually transmitted infection among the patients. Out of 422 patients, the most common dermatological condition was a superficial fungal infection of the skin. A total of 57(13.5%) patients had dermatophytic fungal infections including tinea corporis, tinea cruris, and tinea pedis. A total of eleven patients presented with pityriasis versicolor. There were 12 (2.8%) patients found with bacterial infections (consisting of 11(2.6%) with folliculitis and 1 (0.2%) furunculosis). A total of 4 patients presented with verruca vulgaris(warts) on the face.

Infestations were also a common presentation in our patients. A total of 41(9.7%) patients presented with scabies which is an infestation caused by mite. Pediculosis capitis was seen in 13 patients who were caused by head lice and most of these patients were in the age group of 10-15 years.

STI is common in sexually active adolescents and adults. A total of 19 patients had clinical features of vulvovaginal candidiasis. One male patient had genital warts. These patients were tested for HIV infection and syphilis and they tested negative.

Hair disorders are common in adolescents and young adults. A total of 39(9.2%) patients presented with telogen effluvium, out of which 25 patients had a history of covid 19 like illness in the past 6 months. Alopecia Areata was diagnosed in total of 10 patients. A total of 10 male patients presented with androgenetic alopecia, also known as male pattern baldness Postinflammatory hyperpigmentation (PIH) can result from any inflammatory skin condition and presents with the darkness of the skin. A total of 40(9.5%) patients presented with PIH and most of these patients had preceding skin lesions of acne vulgaris or superficial fungal infections of the skin.

Acne vulgaris is very common among adolescents and young adults. A total of 46(10.9%) patients presented with acne vulgaris. Urticaria is a common complaint in patients presenting to the Dermatology outpatient department. A total of 57(13.5%) patients presented with chronic idiopathic urticaria. A total of 28 patients presented with eczema which can have varied presentations like irritant contact dermatitis, seborrheic dermatitis, atopic dermatitis, etc. Urinary tract infections were seen in 14 patients, out of which 12 were females.

Table 2: Dermatological diseases and sexually transmitted infections of the patients (N=422)

Diagnosis		Number (n)	%
Fungal infections	Dermatophytic infections		
	Tinea corporis	22	5.2
	Tinea cruris	34	8.1
	Tinea pedis	1	0.2
	Yeast infections	11	2.6
	Pityriasis versicolor		
Bacterial infections	Folliculitis	11	2.6
	Furunculosis	1	0.2
Viral infections	Warts	4	0.9
Infestations	Scabies	41	9.7
	Pediculosis capitis	13	3.1
STI	Vaginal candidiasis	19	4.5
	Genital warts	1	0.5
Hair disorders	Telogen effluvium	39	9.2
	Alopecia Areata	10	2.4
	Androgenetic alopecia	10	2.4
	Premature graying of hair	1	0.2
Eczema	Atopic dermatitis	7	1.7
	Seborrheic dermatitis	9	2.1
	Irritant contact dermatitis	10	2.4
	Allergic contact dermatitis	1	0.2
	Fissured feet	1	0.2
Other	Urinary tract infections	14	3.3

Chronic idiopathic urticaria	57	13.5
Acne vulgaris	46	10.9
Postinflammatory hyperpigmentation	40	9.5

Table 3: Distribution of less common dermatoses in the study population (N=422)

Diagnosis	Number(n)	%
Vitiligo	6	1.4
Psoriasis vulgaris	6	1.4
Skin tags	2	0.5
Balanoposthitis in male	2	0.5
Apthous ulcer	1	0.2
Lichen planus	1	0.2
Milia	1	0.2

The other less common dermatoses included psoriasis in 6 patients and vitiligo in 6 patients. The less common dermatoses are mentioned in table 3.

DISCUSSION

Children and adolescents are constantly exposed to various sources of infections due to environmental exposure and living conditions. This may result in various types of skin problems among them.^[8] The present study was conducted to assess the various dermatological and sexually transmitted diseases in adolescents and young adults in the age group of 10-24 years.

In the present study, bacterial skin infections were found as the most common dermatoses among the study population. Fungal, bacterial and viral infections were common skin problems among adolescent and young adults. These findings are consistent with other studies in developing countries.^[8-10] Urticaria was also a common finding in this study. In other studies, the urticaria was present in lesser number of patients.^[8]

Sebaceous gland disorders, mainly acne vulgaris, constituted 46(10.9%) of the study group. These findings are similar to other studies.^[8] Many in this age group have tendency to delay treatment due to ready availability of many over-the-counter medications and commercial products.

In our study, acne vulgaris was more common in the late adolescence and in the age group of 19-24 years. Many in this age group have tendency to delay treatment due to easy availability of many over-the-counter medications and commercial products. Eczema was also common in our study. A total of 28 patients presented with eczemas due to endogenous and exogenous causes.

A total of patients had infestations like scabies and pediculosis. This is similar to previous studies.^[8] This age group goes to school and community so is predisposed to these infestations. A total of 20 patients had STI including vulvovaginal candidiasis in 19 females and genital wart in one male patient. Other less common dermatoses included vitiligo, psoriasis, lichen planus, skin tags, apthous ulcer and milia.

CONCLUSION

Dermatological diseases are common in adolescents and young adults which cause psychological impact on these patients. The literature regarding the pattern of dermatological diseases and STIs is limited from Eastern Uttar Pradesh. Our study highlights the pattern of dermatoses in this population who attended a specialty clinic in a tertiary hospital.

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