



## Pattern Of Dermatoses Among Adolescents Attending Tertiary Care Hospital In Puducherry

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### Abstract

**Background:** Dermatoses occurring in adolescent age group pose a major impact on quality of life because of great concern to external appearance in this age group which is between 10-19 years, hormonal changes occurring result in various physical and physiological changes. So, this study was conducted to find out the pattern of dermatoses among adolescent age group attending tertiary care hospital to the dermatology outpatient department in Puducherry.

**Methodology:** This was a Descriptive Cross sectional study conducted on 400 consecutive adolescents between the ages of 10-19 years, attending the DVL department in our hospital in Puducherry, from January 2022 to December 2022 were enrolled in the study. They constituted 21.7% of the total OPD in our hospital.

**Result:** Majority of the study group belonged to mid adolescence 148(37%) and late adolescence 150(37.4%). Male and female ratio was found to be 1:1. The dermatoses noted were Appendageal gland disorders- 102(25.6%), Infections 87(21.7%), Infestations 72(18%), Eczema 69(17.03%), Urticaria and Angioedema 21(5.2%), Photosensitivity dermatoses 18(4.5%), Papulosquamous disorders 17(4.2%), Pigmentary disorders 16(4%), Hair disorders 16(3.9%), Nail disorders 6(1.5%), Genetic and Nevoid disorders 5(1.2%), Drug eruptions 4(1.1%) and Others 13(3.2%).

**Conclusion:** It was concluded that Appendageal gland disorders, Infections, Infestations, Eczema were common dermatoses seen in the study group consisted of 400 patients between the age of 10-19 years.

**Keywords:** Dermatoses, Adolescents, Puducherry.

### Introduction

AWHO defines adolescents as individuals in the age groups between 10-19 years 1,2.. They constitute more than 1.2 billion worldwide, about 21% of Indian population 3. The impact on quality of life can be enormous during this psychologically vulnerable period of adolescents. This is a large population whose health needs must be determined. Adolescence is an important transition phase in life, representing a link between the complete dependency of childhood and the total independence of adulthood. The period of adolescence is marked by myriad changes

occasioned by the interplay of hormones during puberty 4. Some of the dermatoses such as acne vulgaris may appear first during adolescents and can have negative impact on self image and psychological development of the adolescence 5. Skin problems are among the most common presenting health problems and pose a significant public health burden both in developed and developing countries. This study was conducted to find out the pattern of various dermatoses among adolescents attending the DVL OPD at the tertiary care centre in Puducherry

from October 2020-September 2021. There are very limited number of studies in literature on adolescent dermatoses and thus the importance of our study.

### Materials And Methods:

This was a descriptive cross sectional study conducted in 400 consecutive adolescents between the ages of 10-19 years after meeting the defined inclusion and exclusion criteria, attending the DVL department in our hospital in Puducherry. A detailed history, clinical examination, appropriate lab investigations were carried out. The study group was further divided into three categories based on age: Early (10–13 years), middle (14–16 years), and late adolescence (17–19 years). The dermatoses were divided into 13 broad categories.

### Method Of Data Collection

After obtaining the informed written consent, (from guardian for age group <18 years and from patient themselves for age group >18 years) a detailed clinical history, a thorough clinical examination and relevant laboratory investigations were done. The data thus collected was entered in to a specially designed performa and photographs were taken when needed after masking the patient's identity.

### Statistical Analysis

The data was entered in Microsoft excel and was analysed using SPSS 20.0.

### Ethical Approval

The protocol was approved by the Institutional Ethics Committee.

### Results:

The study group consists of 400 patients between the ages of 10 and 19 years. There was no sex difference. They constituted 21.7% of the total OPD in our hospital. Majority belonged to mid adolescence 148(37%) and late adolescence 150(37.4%). Table 1 shows demographic characteristics of study group.

The dermatoses noted were Appendageal gland disorders-102(25.6%), Infections 87(21.7%), Infestations 72(18%), Eczema 69(17.03%), Urticaria and angioedema 21(5.2%), Photosensitivity 18(4.5%), Papulosquamous disorders 17(4.2%), Pigmentary disorders 16(4%), Hair 16(3.9%), Nail 6(1.5%), Genetic and nevoid disorders 5(1.2%), Drug eruptions 4(1.1%) and others 13(3.2%). Table 2 shows the frequency of patterns of dermatoses in the study group.

In our study Appendageal gland disorders and Infections were both most common in mid-adolescent age group (14–16 years). Infestations were most common among early adolescent age group (10-13 years). Table 3 shows the common dermatoses based on age group.

**Figure 1: ACNE VULGARIS**



**Figure 2: SCABIES**



**Figure 3: VERRUCA VULGARIS**



**Figure 4: NAEVUS SEBACEOUS**





**Table 1 shows Demographic characteristics of study group.n=(400)**

| CHARACTERISTICS   | n(%)       |
|-------------------|------------|
| <b>AGE(YEARS)</b> |            |
| 10-13             | 102(25.5%) |
| 14-16             | 148(37%)   |
| 17-19             | 150(37.4%) |
| <b>SEX</b>        |            |
| MALE              | 197(49.2%) |
| FEMALE            | 203(50.8%) |

**Table 2 shows Pattern of dermatoses in study group.**

| DERMATOSES                   | n(%)       |
|------------------------------|------------|
| APPENDAGEAL GLAND DISORDERS  | 102(25.6%) |
| INFECTIONS                   | 87(21.7%)  |
| INFESTATIONS                 | 72(18%)    |
| ECZEMA                       | 69(17.03%) |
| URTICARIA AND ANGIOEDEMA     | 21(5.2%)   |
| PHOTOSENSITIVITY             | 18(4.5%)   |
| PAPULOSQUAMOUS DISORDERS     | 17(4.2%)   |
| PIGMENTARY DISORDERS         | 16(4%)     |
| HAIR                         | 16(3.9%)   |
| NAILS                        | 6(1.5%)    |
| GENETIC AND NEVOID DISORDERS | 5(1.2%)    |
| DRUG ERUPTIONS               | 4(1.1%)    |
| OTHERS                       | 13(3.2%)   |

**Table 3 shows the common dermatoses based on age groups.**

| AGE GROUP(YEARS) | NUMBER OF PATIENTS | APPENDAGEAL GLAND DISORDERS | INFECTIONS | INFESTATIONS |
|------------------|--------------------|-----------------------------|------------|--------------|
| EARLY(10-13)     | 102                | 23                          | 22         | 43           |

|                    |     |    |    |    |
|--------------------|-----|----|----|----|
| <b>MID(14-16)</b>  | 148 | 38 | 29 | 17 |
| <b>LATE(17-19)</b> | 150 | 41 | 36 | 12 |

## Discussion

This study conducted over a period of one year included 400 patients; of which 197 (49.2%) were males and 203 (50.8%) were females. Thus there was no sex difference in our study which is in accordance with the study by Vanlalhratpuii Hmar et al. Lesions were asymptomatic in 338 (84.5%) cases and only 62 (15.5%) patients complained of itching or pain. Majority of the study group belonged to mid adolescence 148(37%) and late adolescence 150(37.4%).

In this study, Appendageal gland disorders-102(25.6%) constituted the most common dermatoses of which Acne vulgaris ranked first. Further, majority of the study group belonged to mid adolescence 148(37%) and late adolescence 150(37.4%). Acne vulgaris was most common from ages 14 to 19 years, the age group where hormonal changes of puberty taking place. This is in concordance to the study done by Hmar et al and with other studies in school-going children, Kashmir, India<sup>6,7</sup>. The reason for more number of acne patients presenting late in adolescence may be due to a tendency to delay professional advice as a result of ready availability of many over the counter medications and commercial products.

Infections 87(21.7%) ranked next to appendageal gland disorders in our study of which dermatophytic infections were the most common. This in consistence with the study of Hmar et al<sup>6</sup>.

Infestations were more commonly seen in early adolescents (n = 43) as compared to late adolescents (n = 12) as this age group is exposed to other children in schools and other places in the community, the possibility of exposure to contacts could contribute to this.

Eczemas were seen in 69 (17.03%) of the study group. This group included patients presenting with any type of endogenous or exogenous eczemas of any duration. Further categorization and quantification of eczemas were not performed in this study.

Other less common dermatoses included urticaria, papulosquamous, hair and nail disorders, and pigmentary dermatoses.

## Conclusion

We undertook this study to throw light on the various dermatoses among adolescents age group owing to physiological and social factors. It was concluded that Appendageal gland disorders, Infections, Infestations, Eczema were common dermatoses seen in the study group consisted of 400 patients between the age of 10-19 years.

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