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Original Research Article

A Cross-Sectional Study to determine the Pattern of Skin Diseases in Inmates of Central and District Jail, Jammu, J&K

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ABSTRACT

Background: Prison acts as a cistern for many skin infections and infestations. Inmates act as a vulnerable group between prison and community. Hence, timely recognition and treatment of skin diseases is important to decrease the spread and burden of disease in the community.
Objectives: To determine the pattern of skin diseases among inmates of Central and District Jail, Jammu**.**
Materials and Methods: Screening of 200 prison inmates was done as a part of special skin camp organized in the Central & District Jail, Jammu by the dermatologist.
Results: Of the 200 patients screened, 55.5% were infectious and 44.5% were non-infectious. Among the infectious group, fungal infections were commonest followed by scabies, warts & pyodermas. Acne vulgaris and Melasma were the most common non-infectious conditions observed.
Conclusions: We recommend regular screening of new inmates by Health professionals posted in prisons and periodic skin camps to be conducted in prisons by dermatologists at regular intervals.

Keywords: Prison, Inmates, Skin diseases.

INTRODUCTION

A prison is a place of confinement for inmates where they are denied from a variety of privileges but they also have the right to safety, basic needs and right to health like the general population. Because of the security issues & poor access to medical supplies & treatment, skin conditions are often neglected.[1] Overcrowding, poor sanitary conditions, increased stress levels, lack of awareness and abuse of steroids can lead to various skin diseases or aggravate pre-existing skin ailments.[1,2,3]

MATERIALS & METHODS

Special skin camps were organized in Central Jail and District Jails, Jammu. Inmates were screened by the jail doctor & those who had specific skin problems were then presented to the dermatologist in the camp. A brief history pertaining to the skin complaints was taken and a detailed cutaneous examination in good daylight was conducted. Patient's age and sex were recorded. They were properly counselled and appropriate treatment was prescribed. Investigations were also advised wherever required. Follow-up was advised in selected patients to Skin OPD of GMC Jammu.

RESULTS

A total of 200 prison inmates were screened for various cutaneous diseases. All of the patients were males. Age group ranged from 20-67 years with mean age of 35.7. Majority of inmates belonged to 27-50 years of age. [Figure:1]

In our study, we have classified various skin diseases into Infectious and Non-Infectious group. Out of all, 55.5% of patients had infectious diseases (n=111) and 44.5% of them had non-infectious diseases (n=89). [Figure:2]

Among the infectious group, fungal diseases were more common (65.7%) followed by Scabies (28%), Warts (4.5%) and Pyodermas (1.8%). [Figure:3] Among the non- infectious group, Acne Vulgaris was the most common presentation (19.1%) followed by Melasma (9%), Chronic Spontaneous Urticaria (9%), Psoriasis (7.8%), Pruritus (6.7%), Hand eczema (5.6%),

Androgenetic alopecia (3.4%), Xerosis cutis (3.4%), Alopecia areata (2.2%), Acne Excoriee (2.2%), Vitiligo (2.2%), Seborrheic dermatitis (2.2%), Facial dermatitis (2.2%), Hypertrophic Scar (2.2%), Topical Steroid Dependent Face (1.2%), Scrotal eczema (1.2%), Rosacea (1.2%), Keloid (1.2%), Keratosis pilaris (1.2%), Ichthyosis (1.2%), Periorbital melanosis (1.2%), Seborrheic Keratosis (1.2%), Spider nevus (1.1%), Becker's nevus (1.1%), Post Acne Scarring (1.1%), Hidradenitis Suppurativa (1.1%), Syringoma (1.1%), Lichen Planus Pigmentosus (1.1%), Post Inflammatory Hypopigmentation (1.1%), Sebaceous cyst (1.1%), Discoid Lupus Erythematosus (1.1%), Bullous Pemphigoid (1.1%), Amyloidosis (1.1%) and Papular Urticaria (1.1%). [Table :1]

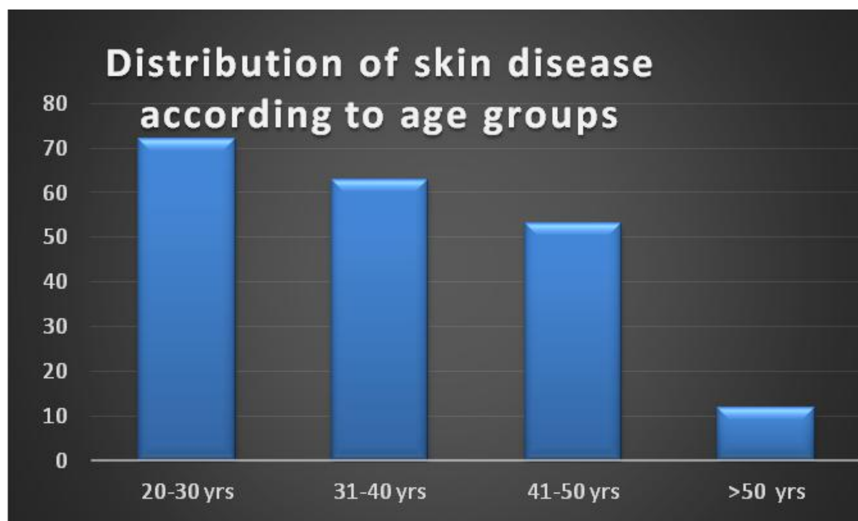

Figure 1: Distribution of skin disease according to age groups

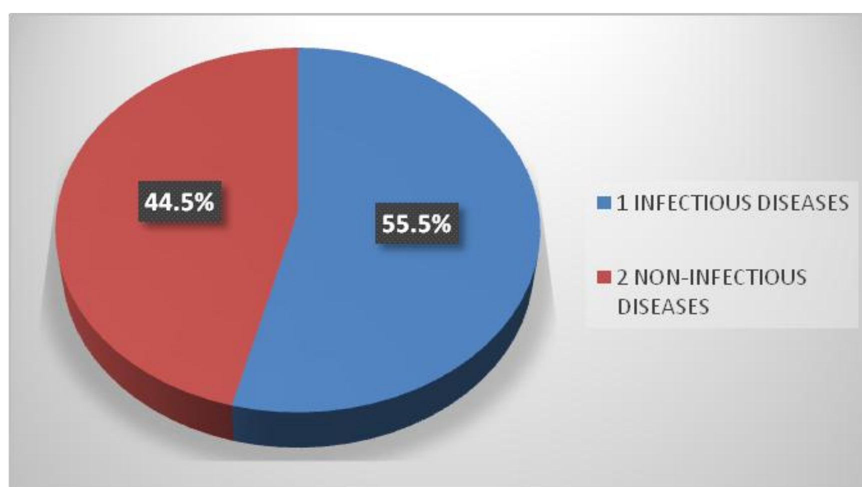

Figure 2: Percentage distribution of patients with Skin diseases

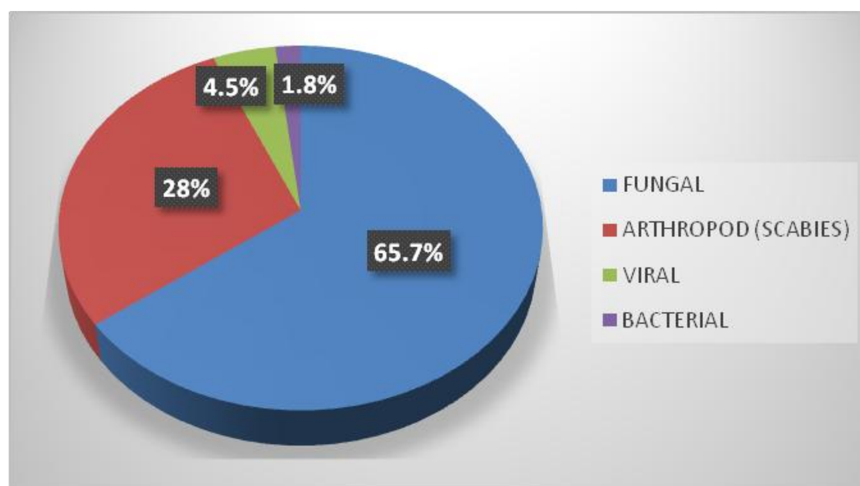

Figure 3: Percentage distribution of Infections among Prison Inmates

Table 1: Percentage distribution of skin diseases

Diseases	Number	Percentage
	Infective (n= 111)	
1.Fungal Infections	73	65.7
2.Scabies	31	28
3.Warts	5	4.5
4.Pyodermas	2	1.8
Total	**111**	**100%**
	Non -infective (n=89)	
1.Acne vulgaris	17	19.1
2.Melasma	8	9
3.Chronic spontaneous urticaria	8	9
4.Psoriasis	7	7.8
5.Pruritis	6	6.7
6.Hand eczema	5	5.6
7.Xerosis cutis	3	3.4
8.Androgenetic alopecia	3	3.4
9.Others	32	36
Total	**89**	**100%**

DISCUSSION

Prison acts as a cistern for many skin infections and infestations. Inmates live in a dynamic equilibrium between prison and community. Hence, timely recognition and treatment of skin diseases is important to decrease the spread and burden of disease in the community.

In our study, both infectious and non- infectious skin diseases were observed. Fungal infections were found to be most frequent and common presentation (65.7%) among all skin conditions. In fungal diseases, Tinea cruris was the most common type (52%) followed by Tinea corporis (19.1%) and pityriasis versicolor (6.8%). In contrary to the previous studies, we have highlighted the misuse of topical triple combinations containing antifungal, antibiotic and steroids by the majority of inmates with fungal infections, which were prescribed by the health professionals posted in prison. This could be the reason for recalcitrant nature of infection. Lack of awareness, poor sanitary conditions, overcrowding, sharing of personal items and toilets were also observed to be the contributory factors.

Scabies was found to be the second most common presentation (28%) among the inmates. Again, lack of proper hygiene and sleeping in crowded space could be the possible reason for recurrent infestation resulting in a vicious cycle. While treating such diseases, proper awareness of condition and guidance regarding the application of medication play a crucial role in halting the transmission. In a study conducted in 1999 by Kurvilla et al in Mangalore, similar results were seen showing the prevalence of infections to be 40.4% and among the infections, fungal

infection was the commonest (51.3%) followed by Scabies (16%).[4]

Among the Non-infectious group, Acne vulgaris was most commonly seen (19.1 %) in inmates ranging from papular to nodulocystic acne. A Similar study carried out in Iran by Roodsari et al showed worsening of acne lesions after the imprisonment along with its association with history of addiction.[5] Melasma (9%) was observed in significant proportion of patients in our study. Malnutrition, stress, exposure to sunlight and misuse of topical steroid\ combination creams were observed as contributing factors for significant cases of melasma. Unlike our study, Kanish and Bhatia in Ludhiana observed Eczema (21%) to be the most common presentation among the non -infectious group.[1] Few cases of Psoriasis (7.8%) and hand eczema were also seen in our study. Stress in Prison environment was found to be the aggravating factor. This is comparable with other data on stress among the prison inmates.[6]

In conclusion, it is important to lay emphasis on periodic screening of prison inmates by dermatologist through special camps /OPDs. Taking into consideration the results of our study, it is highly recommended to screen the inmates at the time of entry and during their stay to control the transmission of infectious diseases to other inmates. Likewise, it is important to improve the sanitary conditions of the prison and to increase the awareness among inmates regarding personal hygiene measures. Our observation regarding the inadvertent use of topical steroids/triple combinations by inmates is the distinctive attribute of our study that has never been mentioned in available literature. So we suggest to limit the use of topical corticosteroids to only steroid responsive ailments by the health professionals posted in prisons.

Undoubtedly, prison inmates also have the right to health. A primary health care service in prison must be provided with the staff resources and facilities of the same standard as those available in the community and for its execution, proper training should be given to health professionals posted in prison regarding the skin conditions.

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