

ECOLOGICAL STUDY OF SKIN DISEASES IN DELHI AREA

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Summary

The present study is a portrayal of the incidence of skin diseases viz, skin problems in a house to house survey of a community and its comparison with 5 years' (1971-1976) statistical analysis of various dermatoses seen in the Skin Institute. Seasonal variation of various dermatoses is represented in graphic form.

Data collected reflect the prevalence of common skin problems. To these is drawn the attention of medical authorities and teachers for revision of the undergraduate curriculum and refresher courses (continuing medical education). It is desired that proper stress should be laid on control of infectious dermatoses particularly scabies which forms a very large percentage of the prevalent dermatoses in our community.

Environment plays an important role in the predisposition, development and aggravation of skin diseases. Further, they are responsible for their prevalence in a particular environment. A disease process is usually the manifestation of the genetic constitution of an individual including his racial characteristics, and his environments, nutritional status, ethnological influences, development or backwardness, occupation and climatic factors. What applies to an individual is reflected in a community or a country; prevalence of the disease being more or less dependent on the same factors¹.

The study has been designed to help us to understand environmental dermatology, get proper perspective about the relative incidence of different

dermatoses and social and medical apparatus needed in handling them. Epidemiological and ecological studies of skin diseases in the vast subcontinent of India are very few indeed. Importance of ecology in dermatology is not fully recognised. How heterogenous customs, living conditions, social status and climate can affect the prevalence of different dermatoses is indeed significant. Gangadharan et al² have described the pattern of skin diseases in Kerala. Mehta³, Gass⁴, Jayaram⁵ and Sadana⁶ have discussed the pattern of skin diseases in different parts of India. Desai⁷ discussed the ecological prospectives and dermatological problems in India. Since only a small percentage of cases reach the hospital and private practitioners, institutional statistics are bound to differ. The seasonal variation of various dermatoses has not been studied in the country as shown in the attached figures.

Material and Methods

Study consisted of two parts :

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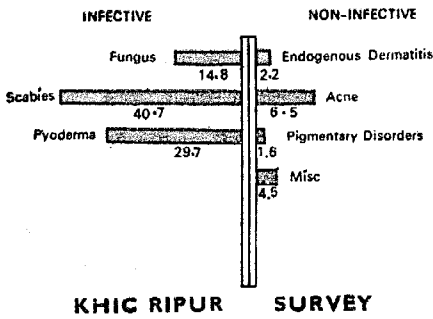
A - House to house survey-This was conducted in village Khichripur as a domiciliary service programme of the Skin Institute. A team consisting of a specialist, medical officer and public health nurse visited the village twice weekly in September and October of 1977. They visited each house and obtained information from the master of the house and his wife. This information was confirmed by checking it with the neighbours. Majority of people in the area belong to low economic status and live in unhygienic conditions. Each family home is built on 25 sq.

yds. of land. Further work is planned in other colonies for the sake of comparison. (Tables 1 & 2, Graph 1)

Observation

Table 1 shows total number of houses, population and average income. Table 2 shows the distribution of different dermatoses amongst the population surveyed.

B - Skin Institute studies - These extended from 1972 to 1976. Patients attending the Skin Institute come from Delhi and its neighbouring States of Haryana, Uttar Pradesh and Rajasthan. Table 3 shows the average income of the patient attending the Institute. Table 4 shows the distribution of different dermatoses amongst patients attending the Skin Institute. (Tables 3 & 4, Graph 2)



Graph 1

TABLE 3

Category	Income per month	Percentage
Upper	Above Rs. 1000/-	10
Middle	Rs. 500/- — 1000/-	80
Lower	Below Rs. 500/-	10

The percentage of literacy among the patients attending is above 75 %.

TABLE 1
Showing average Income of the Population

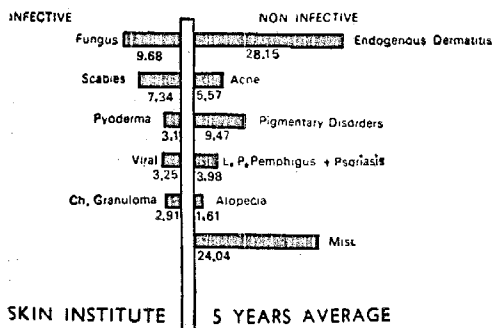
Category	Income per month	Total No. of Population 1000	
		No. of families	Percentage
Upper	Above Rs. 1000/-	2	1
Middle	Rs. 500/- — 1000/-	35	17.5
Lower	Less than Rs. 500/-	163	81.5

TABLE 2
Showing the Distribution of Different Dermatoses

Infective	Percentage	Non-Infective	Percentage
Scabies	40.7	Dermatitis & Eczema	2.2
Fungus	14.8	Acne	6.5
Pyoderma	29.7	Pigmentary disorders	1.6
		Misc	4.5
Total	85.2	Total	14.8

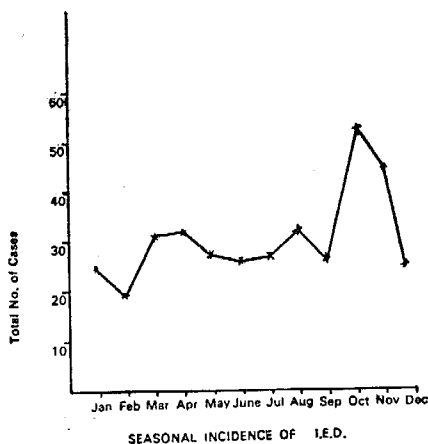
TABLE 4
Skin Institute

Infective	Percentage	Non-Infective	Percentage
Fungus	9.68	Eczema & Dermatitis	28.15
Scabies	7.34	Acne	5.57
Pyoderma	3.0	Pigmentary Disorders	9.47
Viral	3.25	Lichen Planus, Pemphigus & Psoriasis	3.98
Inf. Granuloma	2.91	Alopecia	1.61
		Misc.	25.04
	Total 26,18		Total 73.82



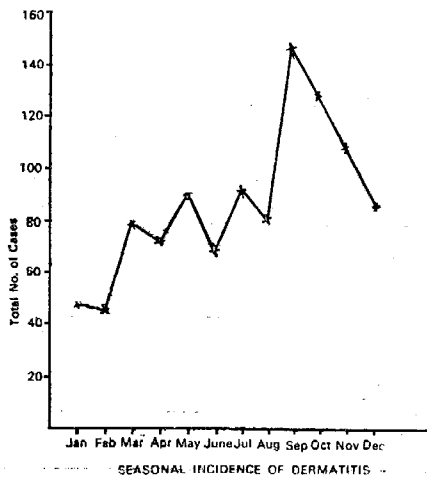
Graph 2

The seasonal variation of different dermatoses is represented in graphs 3-8.

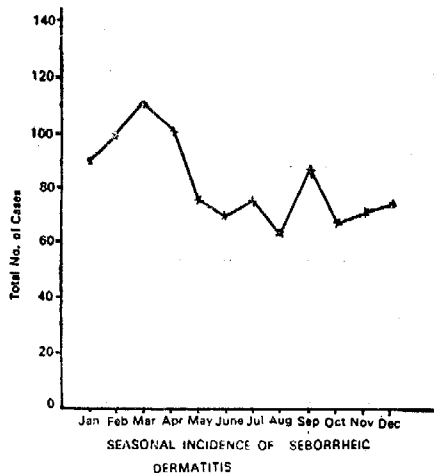


Graph 4

those reported from U. K. and other countries. Our study reveals difference in the incidence in the Skin Institute



Graph 3

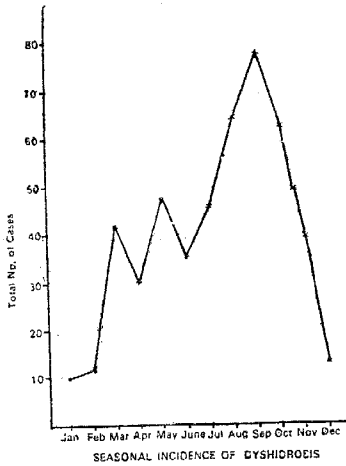


Graph 5

Discussion

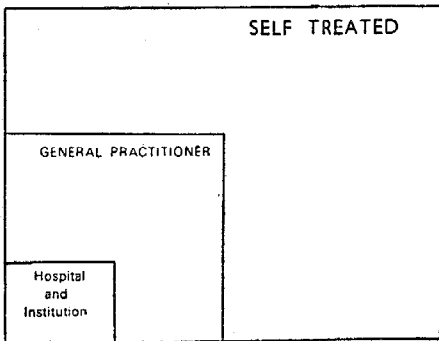
The incidence and prevalence of different dermatoses varies considerably in the papers published^{2,7}. They also vary from

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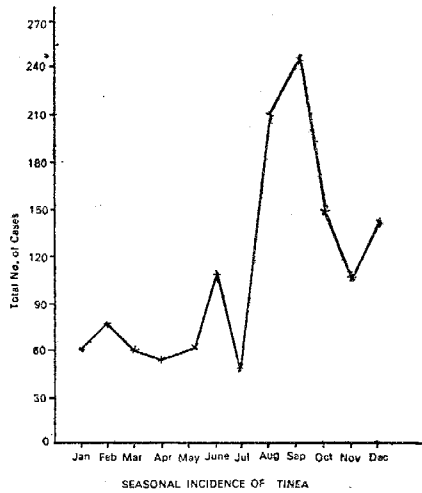
Graph 6

and in the Khichripur house-to-house survey. Khichripur survey shows that infective dermatoses like scabies, pyoderma and fungus infection represent 85% of all the skin problems. In comparison, the figures of the Skin Institute reveal that infections form only 26% of all the dermatological problems. Figures also vary from institute to institute. Factors responsible for this may be multiple; namely reputation of the attending physician, his particular experience and/or interest. Majority of patients with infective dermatoses get treated for their infections outside institutions and only a very small percentage reach institutions as represented by Fig I.



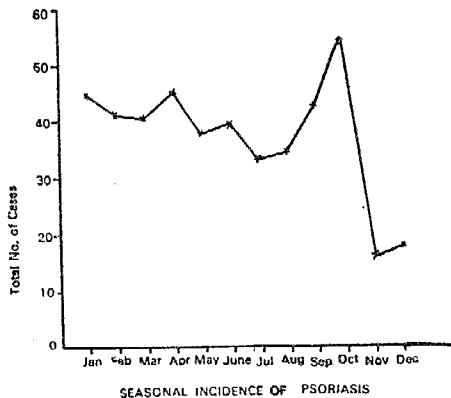
Graphic representation of the percentage of patients getting self treated, going to general practitioner and attending the Hospitals and Institution.

Thus it reveals that hospital figures are a very poor indication of actual prevalence of any disease. Further it needs to be emphasized that the vast number of infective problems can be eradicated by taking active prophylactic measures in the field. Personal hygiene, better health education, treatment of infections in time, management of contacts, isolation of susceptible community, raising of economic status, etc., do help considerably in control and



Graph 7

eradication of infectious dermatoses. Our domiciliary programme was a valuable experience in this direction. Besides, there has to be co-operation and mutual appreciation of the roles of



Graph 8

specialist, family doctor, social worker, public health officer and preventive and social medicine department of local medical institutions.

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References

1. Rook A & Wilkinson DS : Prevalence, incidence and ecology of diseases of skin - Text book of Dermatology 2nd edition, Rook A, Wilkinson DS, Ebling FJG Blackwell Scientific Publication 1972, p 25.
2. Gangadharan C, Joseph A and Sarojini PA : Pattern of skin diseases in Kerala, Indian J Dermatol Venereol and Lepr, 42 : 49, 1976.
3. Mehta TK : Pattern of skin diseases in India, Indian J Dermatol Venereol, 28:134, 1962.
4. Gass HH : Pattern of skin diseases in India, Indian J Dermatol Venereol, 28:140, 1962.
5. Jayaram DP: Pattern of skin diseases in India, Indian J Dermatol Venereol, 28 : 149, 1962.
6. Sadana SP : Pattern of skin diseases in India, Indian J Dermatol Venereol 28 : 149, 1962.
7. Desai SC : Ecological perspectives of Dermatology in India, Arch Derm, 82 : 701, 1960.

TRUE

It has been recently shown that EV is induced by virus different from the papilloma/virus of warts. Clinically and histologically as well as in the often depressed cell mediated immunity some EV resemble long-standing verrucae planae caused by HPV - 3 virus. Contrariwise some EV were shown to be caused by HPV - 4 virus. Clinical lesions in such cases were characteristically red, red - brown and depigmented pityriasis versicolor-like plaques. Malignant transformation in this latter group seems inevitable.

Reference :

Jablonska S, Ortha G, Chorzelska MJ et al : Epidermodysplasia verruciformis versus disseminated verrucae planae: Is epidermodysplasia verruciformis a generalised infection with wart virus? J Invest Dermatol, 72 : 114, 1979.