PERIPHERAL T-LYMPHOCYTE COUNT IN PITYRIASIS ROSEA

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Fifty patients with pityriasis rosea (PR) were selected the and their diagnosis was confirmed histopathologically. Peripheral T- lymphocyte counts were done by Thompson method (1977) in all these patients and in 10 healthy controls. Mean value in controls was 58. 1% and in pityriasis rosea it was 48.1% and the difference was statistically significant.

Key words : Immunity, T- lymphocyte

Introduction

Immunological mechanism, both cellular and humoral may play significant role in pathogenesis of pityriasis rosea (PR). Some decrease in peripheral T-lymphocyte cell counts in acute phase as well as in convalescent phase of PR, associated with transient increase in B-cells bearing IgD, or both only uring acute phase of PR were reported.[1] Low peripheral T-lymphocytes were associated with increase in serum IgM and decrease in C3levels in PR.[2] Immunopathologically a moderate T-cell infiltrate in early lesions of PR has been reported.[3] Non - specific increase in T4/ T8 ratio was reported in early lesions of PR and more of T8 cells.[4]

Materials and Methods

Fifty patients having only PR were selected from Dermato-Venereology department of Rajindra Hospital, Patiala. Detailed history, general physical, systemic and dermatological examinations were carried out. Peripheral T-lymphocytes were counted by Thompson method (1977) in 50 cases of PR and 10 normal healthy controls. Clinical diagnosis was confirmed histopathologically.

Results

Table I shows that the mean percentage of T- lymphocytes forming E-rosettes in control group was 58.1% and standard deviation was 3.03. The mean for PR patinents was 48.1% and standard deviation 4.78. On comparison of the two groups the percentage change was 17.1 and p-value was <0.001 which was statistically significant. Thus there was decrease in peripheral T-cell counts in patients with PR.

There were 23 males and 27 females and differences in peripheral T-lymphocyte counts in both sexes were statistically insignificant.

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Table1 - Statstical analysis of T-lymphocytes forming E. rosettes between normal controls and patients with pityriasis rosea

Group	No.	Range (%)	Mean+SD (%)	cv	Percentage change	't' value	df	P value
Normal controls	10	52-63	58.1+3.03	5.21				
					17.10	8.50	78	<0.001 HS
PR patients	50	36-56	48+4.78	9.92				

Two groups were formed based on duration of PR, Group A with duration of PR less than 2 weeks and Group B with duration of PR more than 2 weeks and both showed statistically insignificant difference in peripheral T-lymphocyte counts.

Discussion

Mean for T-lymphocytes forming E-rosettes was 58.1% for controls and 48.1% for PP. Statistically significant decrease in peripheral T-lymphocyte counts in PR was observed in the present study and earlier studies also point derangement of cellular immunity in PR.[1,2]

References

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