

AN OPEN CLINICAL TRIAL COMPARING (PAIRED COMPARISONS) DESOXIMETASONE WITH BETAMETHASONE 17-VALERATE

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INTRODUCTION

THE BENEFICIAL EFFECT OF topical steroid preparation in treating skin inflammation is well established. Each new topical steroid introduced must be evaluated against a 'standard preparation' to test its efficacy. Though there are many laboratory methods including the vasoconstrictor test developed by McKenzie to test the efficiency of a topical steroid preparation, clinical evaluation is still the most suitable method. With this in mind a new preparation desoximetasone (Esperson) was compared with betamethasone 17-valerate in the treatment of various types of eczemas and psoriasis.

METHOD

One hundred patients were included in this open trial and one half of them were randomly allocated to the treatment with desoximetasone. Table I shows the number of patients with each skin disease for both topical preparations. The extent, duration and the severity of the skin changes were comparable as far as possible in both groups. None of them had any topical application for at least two weeks before they were included in the trial. The patients were instructed to apply the ointment twice daily. No other treatment was given. They were seen at weekly intervals to assess the response to treatment and were followed up for a minimum of one month.

Table I

	Desoximetasone				Betamethasone 17-valerate			
	No. of Pts.	Results			No. of Pts.	Results		
		Ex. to G	F	P		Ex. to G	F	P
Contact eczema	17	13	0	4	15	7	3	5
Photosensitivity	6	3	3	0	5	3	2	0
Discoïd eczema	8	8	0	0	12	4	3	5
Atopic eczema	8	4	4	0	6	3	1	2
Psoriasis	11	4	3	4	12	6	2	4
Total	50	32	10	8	50	23	11	16

Ex. to G = Excellent to Good. F = Fair, and P = Poor.

RESULTS

The response to therapy was grouped into 3 categories: Excellent to good, Fair and Poor. In "Excellent to good" response, the skin condition cleared and remission was maintained throughout their follow-up. In "Fair" response, both symptoms and signs were less but there was no remission. If the skin change remained as it was in the first visit or the improvement was minimal, the response was categorised as "Poor".

Table I shows the results for both topical preparations and Table II shows a statistical analysis of the results. In analysis of the response in individual disease, though the difference in eczema has not reached the accepted $p = 0.05$ level, the results does suggest a superiority. In discoid eczema desoximetasone superiority is statistically significant. In psoriasis, atopic eczema and photosensitivity, the analysis does not show a significant difference in response to the two drugs. The overall response to therapy is shown in Fig. 1. The overall superiority of desoximetasone is shown by the percentage of cases showing "Excellent to good" response and by a statistical significance of the difference at the $p = 0.05$ level.

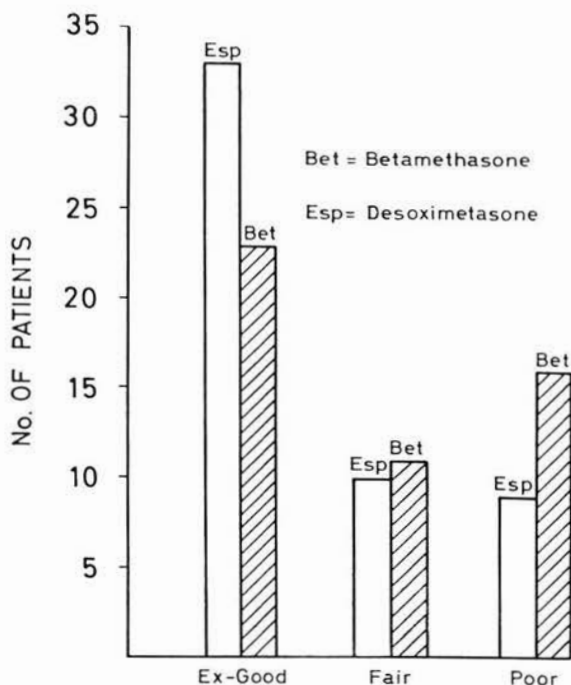
COMMENTS

The study showed that desoximetasone is a suitable preparation for the treatment of all types of eczema. In comparison with betamethasone 17-valerate, desoximetasone has proved as a more effective topical steroid application. Tachyphylaxis did not influence the observed results in favour of desoximetasone, as most of the conditions treated were acute and the patients did not have any previous topical steroid therapy. In psoriasis where previous topical steroid therapy may have been used, the response did not show statistically significant difference to the two preparations.

SUMMARY

Desoximetasone was compared with betamethasone 17-valerate in the treatment of various

Fig. 1. Overall response to therapy



types of eczemas and psoriasis. The former was found to be a more effective topical steroid especially in the management of eczemas.

ACKNOWLEDGEMENTS

The study was supported by Hoechst Malaysia Sdn. Bhd., who also supplied desoximetasone (Esperson). I am grateful to Dr. K. L. Yeoh of the Department of Psychological Medicine, Medical Illustration and Puan Rohani.

REFERENCE

McKenzie, A.W. and Stoughton, R.B. (1962). Method for comparing percutaneous absorption of steroids. *Archs. Derm.* **86**, 608-610.

Table II

Analysis of Response in Good to Excellent Category

Condition	Desoximetasone		Betamethasone 17-valerate		X ₂ Test
	Total cases	% in category	Total cases	% in category	
Eczema	17	76.5	15	53.3	$p < 0.2 > 0.1$
Photosensitivity	6	50.0	5	60.0	n.s.
Discoid eczema	8	100.0	12	33.3	$p < 0.05$
Atopic eczema	8	50.0	6	50.0	n.s.
Psoriasis	11	36.6	12	50.0	n.s.
Overall	50	66.0	50	46.0	$p < 0.05$