EVALUATION OF LOCAL MEASURES IN AELERGIC DERMATOSES ANTIHISTAMINES & CORTICOSTEROIDS*

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It is both fashionable and a common practice to diagnose some common erruptions as allergic and under the relentless pressure of propaganda from drug firms and even demands from the patients or danger of loosing a great temptation to use topical antihistaminics or expensive corticosteroids even for those cases of allergic dermatoses which could be more safely treated with calamene lotion.

After the discovery of antihistaminics in 1943, their topical preparations were made available, but their rapid succession for "new and better" made their appraisal difficult. At present there are at least 14 different topical antihistaminics available in the market and one wonders if their further manufacture has been stopped due to lack of more names. From their large number one may surmise that their efficacy is doubtful. Dr. Ellis and Bundich (1952) however produced a very enlightening analysis on the use of topical antihistaminics after they were in use for ten years, by a questionnaire survey, given Table I below:

TABLE I

Analysis of questionnaire from 200 Dermatologists in USA in 1952

Previously using	94%	
Still using	60%	
Using often	10%	
Discontinued because ineffective	38%	
Aggravation noticed by	22.5%	
Incidence of sensitisation	50.5%	Most commonly used are common sensitisers.
Frequency of contact dermatitis	8.8%	
Considered useful by	25%	
Considered useless by	45%	
Undecided by	30%	
Take off recommended by	30%	
Undecided	33%	
Continue use recommended by	37%	

It is obvious from the above Table that the topical use of antihistaminics is not favoured by most of the Dermatologists in the USA and we in the Armed Forces do not make use of these agents at all.

Being aware of the handicaps that the general practitioners, who are the back bone of medical practice, have to face in the treatment of allergic dermatoses, we

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decided to carry out a clinical trial to bring out the merits and demerits of the therapeutic agents commonly used in general practice. This paper on the evaluation of local measures in allergic dermatoses is based on the observations made in a clinical trial on a total of 56 cases; 22 being in the topical antihistaminics series and 34 in the topical corticosteroids series. The results of our clinical trial were more or less the same as published by other workers like Epstein, Peter Kin and Vickers (1959, 1960).

In order to evaluate any topical therapeutic agent the following criteria are essentially borne in mind :

(a) High effeciency i. e. effect to produce the reversal of pathology.
(b) Low allergic potential.
(c) Very low primary irritancy.
(d) Systemic toxicity by absorption.
(e) Easy incorporation and stability in vehicles.
(f) Lack of photo allergic potential.
(g) Lack of cross sensitivity to Immuno chemical agents.
(h) Acceptability to users—should be pleasant and cost should be low.
(i) Deprevation of systemic use•

And based on the above criteria the results of the clinical trial with topical antihistaminics and corticosteroids is appended below in Table 2 and 3:

TABLE 2

Trial with Topical Antihistaminics

Cases	No.	results				Remarks
		+ +	+	±	–	
Sulpha and Penicillin Dermatitis	5	I	–	I	3	
Shoes Dermatitis	6	I	2	–	3	
Hair Dye Dermatitis	4	–	I	2	I	I Case developed Photo sensitivity.
Hat Band Dermatitis	3	–	–	3	–	
Insect Bites (Allergic)	4	3	–	–	I	I Case developed contact sensitivity.
Total	22	5	3	6	8	

In this trial Antistin cream and Phenergan cream were employed.

++ Good result + Moderate result ± No effect — Made worse

TABLE 3

Trial with Topical Corticosteroids

Cases	No.	Results				Remarks
		+ +	+	±	—	
Insect Bites (Allergic)	6	4	1	1	-	
Sulpha and Penicillin	3	2	1*	-	-	*Responded to Triamcinolone cream
Shoes Dermatitis	4	3	1	-	-	
Lip Stick Dermatitis	6	4	-	2*	-	*Responded to Triamcinolone cream.
Hair Dye Dermatitis	6	3	-	1	2	
Hat Band Dermatitis	4	2	1*	1*	-	*Responded to Triamcinolone cream.
Nickel and Cement Dermatitis	5	2	2	2*	-	*Responded to Triamcinolone cream.
Total	34	20	5	7	2	

In the above trial 1% Hydrocortisone, 0.1% Fluorohydrocortisone and 0.1%–0.5% Triamcinolone Acetonide cream (Kenolog cream) employed.

Based on our above observations and those of other workers the following Tables show a comparative value of topical antihistaminics and corticosteroids and comparative efficacy of the commonly used topical corticosthroids :

TABLE 4

Comparative Evaluation of Topical Antihist & Corticost

Criteria	Antihistaminics	Corticosteroids
1. Efficiency	Variable	High efficiency
2. Allergic Potential	High	* Very low some cases have been reported wish Hydrocortisone Acetate
3. Primary Irritancy	Yes. Especially when used on broken surfaces.	No.
4. Systemic Toxicity	Yes.	Yes with Fluoro compounds only.
5. Stability	Yes.	Yes.
6. Photo Sensitisation	Yes.	No.
7. Cross Sensitivity	Yes	No.
8. Cost	Low	High
2, Systemic use deprivation	Dangerous when sensitivity develops from local use.	—

Table 5 below shows the comparative evaluation of the commonly used topical Corticosteroids.

TABLE 5

Comparative Evaluation of Topical Corticosteroids

Criteria	Hydrocortisone Acetate	Fluerocortisone	Triamcinolone Acetonide
1. Efficiency	Good with 1% Conc.	Good with 0.1% Conc.	0.1% Conc. Highly efficient.
2. Allergic Potential	Yes*	No	No
3. Systemic Toxicity	Yes	No	No
4. Stability	Yes	Yes	Yes
5. Cost	Low	Low	Very high

* Allergic potential reported from 1% Hydrocortisone ointment is not from the pure Hydrocortisone but from its precursor 21 dial acetate (Church 1960).

$ Increased incidence in light erruptions may be due to increased use of topical and systemic antihistaminics.

CONCLUSIONS

1. Specific diagnosis and elimination of the antigenic agents are prerequisits for successful treatment of allergic dermatoses.

2. Topical antihistaminics do not accomplish that other remedies do not accomplish as well. They play no significant role in producing reversal of pathology. Their antiprurtic and anti-inflammatory effect is variable, Eczematous sensitisation occurs in a significant percentage of cases and this may therefore interfere with subsequent systemic use of these valuable therapeutic agents. Therefore their local use has no place in modern therapy of allergic dermatoses.

3. Topical Corticosteroids on the other hand are strong anti-inflammatory and anti-erythemic agents and quickly allay discomfort. They play an important role in the reversal of pathology, but their use depends on careful assessment of severity and disability. Their topical use in wide spread lesions is uneconomical.

4. Of the topical Corticosteroids Triamcinolone acetonide in 0.1%-0.5% of concentration is the most effective, but it is 25% more expensive. It is reasonable that it should be used as a second line of therapy in patients in whom the response to 1% Hydrocortisone ointment is either incomplete or slow.

5. Creams and lotions appear to be more effective than ointments, but there may be danger of contact dermatitis from the creams.

6. There is evidence that under the influence of local hydrocortisone the skin is held in a state of susceptiblity to the effect of surface irritation, therefore in the begining it must be applied every six hours and gradually tailed off.

7. Finally a search for an ideal anti-inflammatory and-anti pruritic agent which produces relatively-few or no ill effect must continue, but we must remember what Harrick said " But Ne'er the rose without the thorn."

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