

## PSORALEN THERAPY OF LEUCODERMA ACQUISITUM CENTRIFUGUM

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### Summary

Ten patients with leucoderma acquisitum centrifugum were treated with psoralens and solar irradiation. Six patients were given oral 8-methoxy psoralen and four, topical tri-methyl psoralen. They were observed every month for six months. Out of ten patients seven responded to treatment. The mode of repigmentation was found similar to that of vitiligo. Therefore psoralen therapy is recommended for treating this condition.

Leucoderma acquisitum centrifugum also known as halo naevus is characterised by a depigmented zone which surrounds a pigmented naevus. It varies in size from few millimeters to few centimeters. It usually occurs in children or young adults, and poses a cosmetic problem. It is seen to develop in 50% of vitiligo patients<sup>1</sup>. The E/M features of the depigmented zone has been found to be similar to those of vitiligo<sup>2</sup>. Psoralen therapy for vitiligo is well known but there is no report of any therapeutic trial with this drug on halo naevi.

### Material and Methods

The study was carried out on ten patients (5 males and 5 females) out of which seven patients had single halo naevus each and three patients had two halo naevi each. Associated vitiligo was seen in eight patients. In 5 cases vitiligo and halo naevus developed simultaneously. In 2 patients

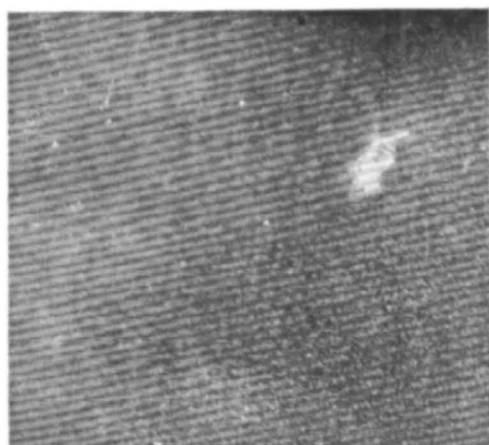
vitiligo developed later than the halo naevus and in 1 vitiligo appeared first. Family history of vitiligo was present in 4 cases where in 3 of the affected relatives were mother, son and daughter. The halo naevi were of less than one year's duration in 5 patients and of more than one year in the remaining<sup>5</sup>. In all the patients lesions were situated on trunk where suprascapular region was the commonest site. In one patient halo naevus was present on face also.

Out of ten patients six were assigned treatment with oral 8-methoxy psoralen and four with topical trimethyl psoralen 0.2%. Patients on oral therapy were advised to take capsules each containing 10 mgs. of 8-methoxy psoralen. Adults were given two capsules and children one capsule. They were asked to expose the lesions to sunlight for thirty minutes daily 2 hours after taking the capsules. Patients on topical therapy were instructed to apply the lotion on lesion with finger and after it dried, to expose lesion to sunlight for 5 to 10 minutes. Patients were seen every month for six months and changes in the lesions were recorded.

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Improvement in the lesion was graded as no response when there was no change in the lesion. Appearance of pigmented spots in the halo zone or slight decrease in the size of the lesion was recorded as fair response. Considerable decrease in the size of the lesion or increase in the size of the pigmented spots was noted as good response and complete repigmentation of the halo zone was considered as excellent response.



**Fig. 1** Halo naevus on shoulder before treatment.

## Results

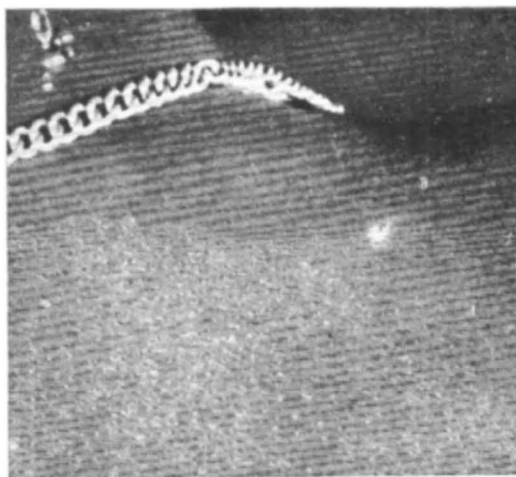
All the halo naevi treated with psoralens and solar irradiation showed mild erythema which was noted after one month. Repigmentation was seen either appearing at the periphery (Fig. 1 & 2) or as gradual return of colour (Fig 2 & 3). Cases on topical therapy showed slight scaling of the lesions. In one patient almost complete repigmentation of the halo zone was noticed within one month though he developed new vitiligo patches on other parts of the body during five months.

Thus out of ten patients, seven responded to treatment. The response was excellent in 4, good

in 1 and fair in 2 patients. Three patients did not show any improvement. Vitiligo lesions of all the patients on oral therapy responded to treatment.

The study showed that cosmetically acceptable results were seen in 50% of the patients on oral as well as topical therapy (Table 1). In psoralen therapy of vitiligo Lerner et al<sup>3</sup> obtained improvement in 50% of the patients on oral therapy. Cosmetically acceptable results were observed in nearly one third of the vitiligo patients on topical therapy by El Mofty in 1952<sup>4</sup>.

The response to treatment was noticed in the patients as erythema of the lesion after one month of therapy and this was followed by pigmentation. The results were better in the younger age group than in the older age group (Table 2). Similar observations were made by El Mofty in 1968<sup>5</sup> in vitiligo patients. He found that the state of activity and extent of the disease had no effect on the response to treatment. It was observed in this trial also that even when the patients had multiple halo naevi or associated vitiligo, the



**Fig. 2** Repigmentation after treatment with oral 8-methoxy psoralen.

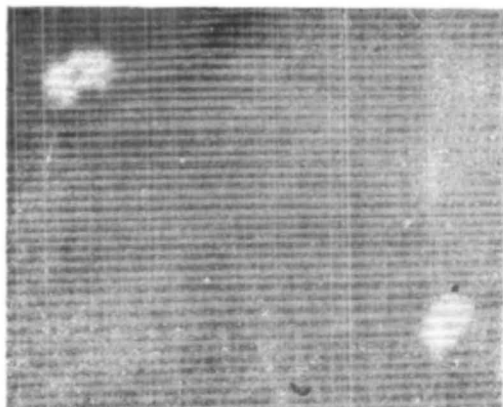


Fig. 3 Halo naevi on back before treatment.

TABLE 1  
Comparing response of oral therapy with topical therapy

Response	No. of cases on oral treatment	No. of cases on topical treatment
Fair to excellent	5	2
Nil	1	2
Total	6	4

Most of the patients on oral therapy responded to treatment

response was excellent and all the patients with lesions of short duration showed noticeable improvement (Table 3).

It is concluded therefore that the depigmented zone of halo naevus behaved similar to vitiligo, in regard to response to psoralens.

Fig. 4 Repigmentation after treatment with topical tri-methyl psoralen.

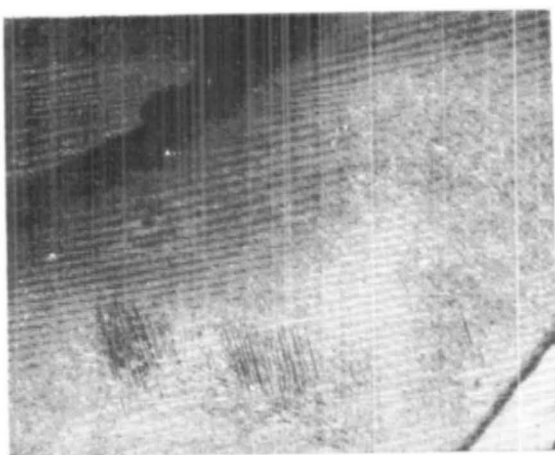


TABLE 2  
Showing age of the patient and response to psoralen treatment

Response	No. of cases upto 12 yrs	No. of cases above 12 yrs
Fair to excellent	4	3
Nil	1	2
Total	5	5

Most of the patients in younger age group responded to treatment

TABLE 3  
Showing duration of lesion and response to treatment

Response	No. of cases duration < 1 yr	No. of cases duration > 1 yr
Fair to excellent	5	2
Nil	0	3
Total	5	5

All the patients with lesions of short duration responded to treatment with psoralens

### References

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