TOPICAL HUMAN PLACENTAL EXTRACT FOR THE TREATMENT OF VITILIGO
(A preliminary study)

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Fifty per cent human placental hydroalcoholic extract was used topically on 34 vitiligo patients. Complete clearing of lesions was seen in 20.6% cases, whereas 50% cases showed mild to moderate improvement, and 29.4% showed no response. No serious side-effects were seen in any of the patients.

Key words : Topical treatment, Vitiligo, Placental extract.

The drugs tried for the systemic treatment of vitiligo include psoralens, various hormones like pituitary hormones[1] and corticosteroids,[2] tolbutamides,[3] griseofulvin[4] and clofazimine. Various local therapeutic measures include topical application of psoralens and cortisone ointment; intradermal therapy with psoralens, liver extract and gold salts. Since placental extracts given intradermally and intramuscularly in small isolated patches of vitiligo have been reported to give encouraging results,[5] a preliminary study using 50% human placental hydroalcoholic extract (HPE) topically over the vitiligo patches was tried.

Materials and Methods

Forty five patients having extensive vitiligo were selected for this study. History of the disease was obtained with special reference to the family history, duration of disease, spread of disease and treatment taken previously. Total number of depigmented patches, their size and sites were recorded. A complete physical examination and basic investigations like full blood count and blood sugar estimation were carried out at the commencement of therapy. In 20 cases the vitiligo lesions were static, and in 14 the lesions were progressive. In all the patients previous treatment was unsatisfactory.

Patients were instructed to rub the HPE lotion on the depigmented patches twice a day for 10 minutes and to expose the area to the sun for 15 minutes after the morning application. Patients were followed up at monthly intervals. The treatment was continued for 6 to 12 months depending on the improvement. No other systemic or topical treatment was given.

Results

Out of forty five patients, 22 were females varying in age from 7 years to 52 years, and 23 were males varying from 5 years to 56 years. Five male and six female patients did not report back for follow up. Thus, 34 patients completed the study.

Erythema followed by follicular pigmentation and decrease in the size of depigmented patches was seen in 24 (70.6%) cases as early as two months, and this continued for upto 6 months. But, after six months, there was very little or no further improvement. After one year, the treatment with HPE was stopped or changed to other medicines in non-responsive cases. In 10 (29.4%) cases there was no response at all.

Correlation of the response to treatment with the duration of vitiligo (Table I), and the age of the patient (Table II) revealed that

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Table I. Correlation of the duration of vitiligo to the response to treatment.

Duration of vitiligo -in years	Number of cases						
	Who showed improvement upto				Total improved	No effect	Total
	25%	50%	75%	100%			
0—½	3	5	1	4	13	1	14
½—1	1	2	1	3	7	1	8
1—2	2	—	—	—	2	3	5
2—4	—	1	—	—	1	3	4
4—8	1	—	—	—	1	1	2
8—16	—	—	—	—	—	—	—
16—32	—	—	—	—	—	1	1

Table II. Correlation of the age of the patient with the response to treatment.

Age (in years)	Number of cases						
	Who showed improvement upto				Total improved	Not improved	Total
	25%	50%	75%	100%			
0—10	1	1	—	2	4	—	4
11—20	5	3	1	3	12	4	16
21—30	1	1	1	1	4	3	7
31—40	—	2	—	—	2	1	3
41—50	—	1	—	—	1	2	3
51—60	—	—	—	1	1	—	1

better response was obtained in patients with a younger age and shorter duration of vitiligo. There was no correlation seen in the response to the treatment with HPE in both progressive and static vitiligo lesions.

Of the 24 improved cases, 7 (20.6%) showed complete clearance of lesions, 2 (5.9%) showed moderate improvement with the size of the patch reducing by upto 75% of the original size; 8 (23.5%) showed regression of the patch by 25% to 50%, while 7 (20.6%) patients showed improvement upto 25% only.

No major side effects were seen, except slight itching in 11.3% of the cases and hyperpigmentation of the surrounding normal skin in one case.

Comments

Our study revealed remarkable improvement in 20.6% cases and moderate improvement in 50% of cases without any marked side effects, suggesting the limited usefulness of HPE in the treatment of vitiligo.

The exact mechanism of action of the placental extract is not known. Placental extract is known to contain tyrosine which is a precursor of melanin, and copper which acts as catalyst in the formation of melanin.[6] Pantothenic acid out of the other B-complex factors present in the placental extract, is considered as the most important factor in promoting copper tyrosinase linkage after the release of copper from sulphydryl group under the influence of irradiation energy. Placental extract is also known to contain corticosteroids which help in the treatment of vitiligo on the basis of the autoimmune concept for the aetiology of vitiligo.[6]

With the concentrating action of HPE in the melanocytes is capable of absorbing ultraviolet radiation, thus accelerating L-DOPA oxidation and favouring melanin production. This stimulating action on melanin pigmentation in guinea pigs has been confirmed.[7]

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