

REVISION CORNER

PIGMENTARY FUNCTION (*Contd.*)

By

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Leucoderma: This disorder of the skin has assumed much social importance. Medically it is a skin condition wherein there is absence of pigment melanin. Socially these hypo to depigmented skin conditions convey different meanings to different social groups and individuals. It creates sometimes as much abhorrence as leprosy with which it is confused through ignorance. Let it be told that leucoderma has no connection with leprosy or any other imaginative infection. Simply stated it is a depigmentary disorder.

It may be primary or secondary. Primary acquired leucoderma is also called vitiligo.

CLASSIFICATION

I. *Primary*:

- (1) Congenital: (i) Albinism (a) Total (b) Partial.
- (2) Acquired (Vitiligo)

II. *Secondary*:

- (1) Physical: Burns etc.
- (2) Mechanical: Scratching as in Neurodermatitis and eczemas.
- (3) Chemical: Monobenzyl ether of hydroquinone used as antioxidant in natural and artificial rubber e. g. leucoderma from gauntlet glove, dress shield mattress, dental dam, condom, ironing-board cover and doll. Benzoquin in lotion or ointment form.
- (4) Actinic: X-rays, isotopes, beta and gamma rays.
- (5) Postinflammatory leucoderma in many skin diseases e. g. leprosy, Herpes, Zoster, eczema, pinta etc.

In this secondary leucoderma group, more severe inflammation is necessary to produce leucoderma than for production of melanosis. A scar from any cause may be depigmented.

Hypopigmentation: It means partial loss of melanin pigment. It is seen in the following skin conditions; erythema streptogenes, tinea versicolor and other fungus hypochromia. Hypopigmentation is caused by (i) pure filtering of U. V. rays (ii) toxic effect of fungus on melanocytes or (iii) both above mechanisms.

Vitiligo: It constitutes by far the largest group of leucoderma cases. It causes social problems. Girls are the easy victims of this social stigma for it comes in the way of their marriage, not only that but are dissolved if leucoderma

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occurs later. It also causes economic hindrance for it may prevent the employment especially when the condition is on exposed parts. Thus psychologic factors start operating right from the first sign.

Etiology: May be considered under following heads. We have collected the following data from our investigation of 100 cases.

- (1) Heredity: nil.
- (2) Family history: 15%.
- (3) Sex incidence: equal.
- (4) Age of onset - 89% cases occur in the first 4 decades and 54% in first 2 decades.
- (5) Intestinal Infection: 20%.
- (6) Trauma: History of physical or other trauma was more common in younger group.
- (7) Blood group: The largest group was 'B' with 36% and smallest was AB with 13%.

Other investigations like blood count, urine, septic focus were noncontributory. Liver function tests were not done as there was no case for such indication.

(8) Psychological factors: Also play part in speeding up leuco-derma. Recently Allergy and Autoimmune mechanism have been suggested by Shelly.

Clinical Pattern: Vitiligo may be generalized or localized. The lesions are hypopigmented to white macules of different size and shape and by their coalescence produce diverse configuration from bizarre reticulate patterns to huge white patches and sheets. Usually there is no itching or other symptom. Lesions are flat flushed with skin surface and not infiltrated. In our series in the majority we did not notice the hyperpigmented border emphasized in text books. There was no constant relationship to grey hairs either. Among the mucous membranes lips were involved commonly.

The following clinical types were recognized:

- (1) Localized.
- (2) Generalized,
- (3) Dhoti and sari type: on waist.
- (4) Mellung: tips of fingers and toes affected. The last two may be localized or part of generalized type, The lesions in generalized type are commonly bilateral and symmetrical and usually start on extremities.

COURSE AND PROGNOSIS

Very few cases recover spontaneously. Relapses are common. Course is usually chronic and protracted Mellung type carries bad prognosis. Patches

with white hairs are difficult to treat. Meladinine together with other ancillary measures have affected the prognosis for better. For the present there is no proof for prohibition of marriages of such people. Dopa positive sites carry better prognosis. Dead white patches do not improve.

MANAGEMENT

Whatever the cause, treatment of leucodermic patches is the same. In secondary cases, the causative factors must be removed. In vitiligo treatment consists of the following steps ;

I. Systemic Treatment :

(1) Meladinine and other psoralens. They are plant products first used by Dr. Mofty of Egypt. They can stimulate tanning capacity of skin. It is given orally as tablets and locally as ointment and lotion. After a period of 1-2 months of oral treatment the local treatment should be started with care. Severe contact reactions in the form of bullous dermatitis may occur. Treatment should be continued for months and years while at the same time watching for toxicity of oral and local treatment.

(2) Intestinal antiseptics : have a definite place. One may use all combinations of antidyserteric drugs, in short courses. Constipation if present should be corrected.

(3) Other anomalies like anaemia deficiencies etc. should be attended to. B complex is a time honoured vitamin supplement.

II. Local measures : Meladinine ointment and solution. They should be applied once at night, Solution should be diluted 1 in 3 with spirit for first week of treatment. Apply to limited area in the beginning. Stop if bullous dermatitis develops.

(ii) Bouchi oil, bergamot oil, sinapis oil and other counter irritants may be used.

(iii) Dermabrasion and skin grafting have been tried.

(iv) Camouflage : walnut juice and other matching paints may be used to mask white patches.

(v) Tattooing and ionization may be employed for isolated patches for cosmetic reasons.

III. Functional Therapy : S. William Becker discussing prognosis, states that vitiligo is a functional disorder. He puts great stress on necessity of rest and relaxation. Failures of therapy can be avoided this way.

(To be continued)