

(Sporanox) and Fluconazole, are available for treatment, but experience with these drugs is still limited. Treatment is often extended over a number of weeks, until the skin lesions are completely healed.

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Bleomycin Induced Flagellate Pigmentation

A 10-year-old girl known case of germ cell tumor of ovary presented with itchy linear pigmentation and thickening of the skin over the trunk, proximal part of extremities, neck, scalp and sides of the face. She had been given Injection bleomycin 18 units weekly, Injection Cisplatin 20 mg, Injection Etoposid 100 mg (BEP regimen). After a week she developed itching on trunk and upper extremities which was more with subsequent injections. Gradually and progressively, she developed linear erythema and pigmentation over the trunk abdomen. On examination, she had linear or streaked pigmentation over trunk, proximal part of extremities, neck, scalp and sides of the face (*Fig. 1*) At places the pigmentation was diffuse. There was an area of indurated skin over abdomen which extended to back. Apart from pigmentation she had almost total alopecia and diffuse pigmentation of lunula of both thumb nails. Skin biopsy from indurated plaque and pigmentation showed features suggestive of morphea and basal cell pigmentation. A final diagnosis of flagellate pigmentation and sclerodermoid changes due to bleomycin was made.

The literal meaning of “flagellate” is to whip some body or oneself as a religious



Fig. 1. Linear, streaked pigmentation over scalp, neck and trunk.

punishment or for sexual pleasure (Oxford dictionary). Various forms of hyperpigmentation have been described with bleomycin therapy. It may be generalized, localized to pressure areas, linear or streaked. The linear or streaked pigmentation which have been further described as "flagellate" pigmentation is a unique side effect of bleomycin therapy. These linear streaks usually develop after a cumulative dose ranging between 90-285 mg. It can appear from 24 hours to 9 weeks of administration of bleomycin. It may occur in 8-38% of patients who received bleomycin for malignancies like

lymphomas, squamous cell carcinoma and germ cell tumors. Therefore, it is not necessary that every patient who receives bleomycin will develop flagellate pigmentation. In most of the cases flagellate pigmentation is reversible after discontinuation of bleomycin.

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