Necrotizing Fascitis in Acute Lymphoblastic Leukemia

Necrotising fascitis is a destructive infection of the skin, subcutaneous tissue and deep fascia, with relative sparing of muscles. It commonly involves genitalia, groins and lower abdomen and has been reported at almost any site. Risk factors include diabetes mellitus, malnutrition, obesity, corticosteroids and immune deficiency. Mortality is high and management requires surgical excision of all affected soft tissues, antibiotics and supportive care.

A 27 years female, case of adult acute lymphoblastic leukemia (ALL) was started induction with four drugs regime (vincristine, prednisone, L-asparaginase and daunorubicin). She developed pain and swelling on the dorsum of the hand during neutropenic phase (no documented chemotherapeutic drug extravasation). The swelling increased inspite of broad-spectrum antibiotics and aggressive supportive care. The final impression was “necrotising fascitis” (Fig. 1). Pus culture grew *E.coli* sensitive to the antibiotics being used. She also received ventilatory support alongwith hyperbaric oxygen therapy. She underwent release incision and fasciotomy in view of increasing skin discoloration. Subsequently, above elbow amputation was done. The surgical specimen revealed ulceration of the epidermis, acute inflammatory exudates with necrosis in the dermis, subcutaneous tissue and muscle. Vascular cut margins revealed an organized thrombus on luminal aspect (suggestive of inflammatory origin). Post-induction marrow was in remission.

Careful intravenous administration, early diagnosis and aggressive therapeutic intervention in a neutropenic patient can avoid such morbid complications.

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Received : 2.8.2004; Accepted : 12.8.2004