Erythema Annulare Centrifugum, Angio-Oedema in Lupus Vulgaris

Syed Ghulam Shabbir, Manzoor-ul-Hassan, Syed Atif Kazmi, Mohammad Jahangir (Dept. of Dermatology, King Edward Medical College, Mayo Hospital, Lahore.)

The exact etiology of erythema annulare centrifugum is not known but Cases related to Internal malignancy, sensitivity to Hydroxy chloroquine Sulphate, $^1$ Fungal infection of feet, Hypersensitivity to Penicillium, $^2$ mould of blue cheese, Tick bites and Immunological disturbances are well known to Dermatologists.

A case of auto-allergic state to the tuberculous infection is reported here. A young man of 30 presented with patchy lesions on elbows and hands for 3 years. Initially these lesions were papular and by peripheral enlargement, coalescence and involution in one area and expansion at another area, discoid lesions (Fig 1)
resulted. At certain places the edges of these lesions were thickened and warty. For the last one year the patient developed off’ and on gyrate, annular and semi-annular erythematous lesions on the sides of neck (Fig 2)
and shoulders. On examination, the external border which was the advancing edge of these lesions was infiltrated and firm on palpation. At one or two areas external border was slightly scaly. The eruption did not always spread in symmetric fashion. Palms and soles were not involved. Vesicles and bullous lesions were not seen.

Patient gave the history of swelling of upper eyelids (Fig 3)
for the last six to seven days. Itching was absent. The lesion lasted for an hour or two or persisted for a
day then disappeared and reappeared on the same side. Previous and family history were non-
contributory. A diagnosis of Lupus Vulgaris with Erythema Annulare Centrifugum and angio-oedema
was made. Hi; haemoglobin was 70%, ESR 80mm after 1st hour, Mantoux test was strongly positive.

Fig. 3. Swelling of upper eyelids.
Total and differential leucocyte count, urine and stool examination, Scraping and culture for fungus and smear for AFB were negative, X-ray chest was clear.

Histological examination from lupus vulgaris (Fig 4)

Fig. 4 Histological examination from lupus vulgaris.
showed hypertrophic epidermis with chronic inflammatory infiltrate in dermis, composed of
Lymphocytes, epithelial cells and Giant cells without necrosis and from Erythema Annulare Centrifugum (Fig. 5)

Fig. 5. Normal epidermis with spongiosis.
a normal epidermis with spongiosis at places. In dermis, there was oedema and a perivascular infiltrate.
He was treated with Streptomycin one gram intramuscularly, INH 300mg and Ethambutol 1200 mg per
day for three months followed by Rifampicin, Ethambutol and INH. After 4 weeks of therapy, marked
fading of lesions of Erythema Annulare Centrifugum on sides of neck and shoulders had occurred and
within 6 weeks’ time the lesions had completely healed. During this period the regression in the lesions
of Lupus Vulgaris was noticed. Swelling of upper eye lids disappeared within 7-10 days from the start
of treatment. Patient was discharged on his own request in the last week of July, 1983 and he was
advised to use the same medicines regularly.

Comments
Erythema Annulare Centrifugum is a reaction pattern which may be due to various etiological factors.
Shelly and Hurley\textsuperscript{3} described a young woman with an unusual syndrome marked by progressive breast
hypertrophy generalised hyperpigmentation and generalized Erythema Annulare Centrifugum. They
considered it to be an autoallergic state and found specific circulating auto-antibodies to her own cystic
breast tissue.
Shelly\textsuperscript{2} reported a similar case where lesions were due to hypersensitivity to penicillium mould of Blue
Cheese.
In three cases\textsuperscript{1} Erythema Annulare Centrifugum developed after the administrations of Hydroxy
chioroquin for the treatment of Discoid Lupus Erythematosis. Spontaneous regression of the lesions of
Erythema Annulare Centrifugum occurred on withdrawal of the antimalarial drug. Jillson\(^1\) disclosed that Erythema Annulare Centrifugum was a dermatophid. The case of Erythema Annulare Centrifugum and Angio. Oedema reported here is due to auto-allergic response to tuberculosis of the skin (Lupus Vulgaris) and with the start of the anti-tubercular treatment, lesions of Erythema Annulare Centrifugum and Angio-oedema subsided.

**References**