

## DISCOID LUPUS ERYTHEMATOSUS ON A PRE-EXISTING PATCH OF CHRONIC RADIO-DERMATITIS

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A middle aged male had lesions of discoid lupus erythematosus developing within a patch of chronic radio-dermatitis on the side of the neck. Radio-dermatitis developed at the site of X-ray irradiation received 35 years ago for tuberculosis of the cervical lymph glands. Subsequently, he developed 3 other lesions of DLE on the upper back.

**Key words :** Discoid lupus erythematosus, Radio-dermatitis, Superimposed.

Chronic discoid lupus erythematosus (CDLE) is an inflammatory disease of unknown aetiology, but immunologic factors are thought to be important in its pathogenesis. A wide variety of antecedent injuries of the skin have been reported to trigger the lesions of DLE. These include sun-burn, frost bite, laceration, vaccination and infection.<sup>1,2</sup> It has also been reported to develop over thermal burn, vitiligo, tattooed skin and striae distensae.<sup>3-6</sup> We observed a case in which DLE lesions appeared on a pre-existing patch of chronic radio-dermatitis on the side of the neck.



Fig. 1. Discoid lupus erythematosus, on a patch of chronic radio-dermatitis on the side of the neck. Note 3 other lesions of DLE on the scapular region, and cavernous haemangioma of the scalp.

### Case Report

A 52-year-old male developed an asymptomatic atrophic patch on the left side of the neck since 35 years following X-ray therapy for tuberculosis of the cervical lymph glands in 1953. Since 3 months, he developed a raised scaly lesion in the centre of this atrophic patch and subsequently noticed 3 other similar plaques developing on the back of chest. The lesions on the left side of his neck was well-defined, dry, atrophic, wrinkled and telangiectatic with mottled pigmentation, it measured 6×8 cm in size. In the centre of the patch, there was a well circumscribed, raised, scaly plaque with atrophy and depigmentation in the centre. There were 3 other plaques with fine telangiectasia, adherent scales and areas of atrophy on the back of chest.

The follicular openings within the plaques were dilated and plugged with keratin. The scales showed carpet-tack sign on their under-surface. A soft pulsatile swelling, present since birth, was seen on the back of scalp. All other systems were clinically normal. Routine laboratory tests on blood, urine and stools were normal. Blood VDRL and LE cell tests were negative. Results of blood sugar, liver function tests, renal function tests and skiagram of the chest were normal. Mantoux test was positive. Biopsy from the plaques on the neck and chest revealed histopathological features suggestive of DLE.

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Histopathological study of the biopsy specimen from the atrophic patch on the neck revealed hyperkeratosis, thinning of the Malpighian layer and dyskeratotic changes in the prickle cells. The dermal collagen appeared sclerotic and the blood vessels showed fibrous thickening of their walls. Only a few remnants of atrophic hair structures were seen in the dermis.

A diagnosis of DLE with chronic radio-dermatitis was made and the patient was given oral chloroquine sulphate 450 mg daily for 2 weeks and then gradually tapered over 2 years. The DLE lesions healed completely, though the patch of radio-dermatitis on the neck persisted.

#### Comments

Gradual development of atrophy, wrinkling, mottled pigmentation and telangiectasia at the site of X-ray irradiation suggested a diagnosis of chronic radio-dermatitis in our patient. Histopathological evidence of degenerative changes in the epidermal cells and dermal collagen further strengthened this diagnosis. The scalp lesion was diagnosed to be a cavernous haemangioma. It is well known that malignant cutaneous neoplasms can arise on a pre-existing patch of radio-dermatitis.<sup>6-8</sup> But benign inflammatory lesions are rarely reported in that location. The DLE lesion first appeared at the site of radio-dermatitis in our patient. The exact mechanism of its development is not known. It is well known that altered DNA may serve as an antigen for causing a locally destructive lesion of DLE.<sup>9</sup> X-rays directly cause damage to the DNA and this can trigger the lesions of DLE. X-ray damaged skin has a

progressively lower tolerance to further irradiations.<sup>10</sup> So the possibility of ultraviolet rays in sunlight triggering DLE in the patch of chronic radio-dermatitis also exists in our patient.

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