DERMATOFIBROMA

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Both the physcian and the dermatologist are familiar with bening circumscribed nodular lesions of the skin. Many a time for want of histological study these are not differentiated and are lumped under fibroma, lipoma, keloid or neurofibroma. Microscopic study of these lesions occasionally discloses the picture of dermatofibroma. This benign neoplasm some times is regisitred under the alternate designations of sclerosing angioma and histiocytoma. Many view it as the end result of fibrosing angioma and in proof of this transitions from a well defined angioma to heavy deposits of collagen in the same section or different parts of the tumour are demonstrated. Others view it as a combination of histiocytic and fibroplastic proliferation, invariably reaction to injury into the depths of the corium. The identification of blood and blood pigments including iron, lipid and histiocytes confirm the traumatic nature of these lesions. The fibrous histiocytic reaction characteristic of this lesion can be seen at times at the margin of superficial ulcers or around vessels or haemorrhages and need not always be in the form of tumour.

Dermatofibromata occur any where in the body and may be pigmented. Nearly 68% of them are seen over the extremities. They vary in size from 2 mm. to 1.5 cmm. in diameter and are well demarcated spherical nodules slightly projecting over the cutis. They may be single or multiple and cause no pain or inconvenience to the patient. They remain stationary for years and do not recur on excision.

3 case reports and histological appearances of them disclosed composite histogenesis and suggestion to their probable histogenesis are recorded below, chiefly to stimulate interest in others in the study of this lesion.

Case Report 1 : Male, aged 18 years was admitted under the care of Dr. M. Muniswamy on 12-6-1955 for swelling over the scalp close to the left parietal region of 1 year duration. It was freely movable over the epicranium and the skin over the growth was pigmented. The growth was excised. It was an ovoid mass and enclosed several small discrete nodules, some of them were projecting above the surface. Multiple sections were studied. (262 / 55) The epidermis is normal. In the corium is seen dense masses of fibrous tissue forming into whorls or in sheets. (Figs. 1 & 2) These fibrous tissues masses showed in places myxomatous degeneration. No inflammatory cell reaction was observed. In areas groups of spindle shaped cells with vesicular nuclei and abundant foamy cytoplasm formed spherical

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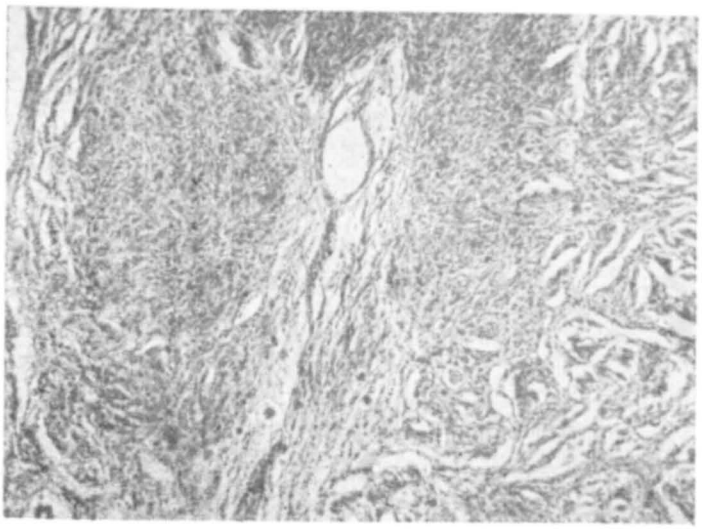

Fig. 1 Case 1 Photomicrograph illustrates histiocytic cell with fibrous tissue forming whorl and endothelial spaces with clefts. (H & EX 90)

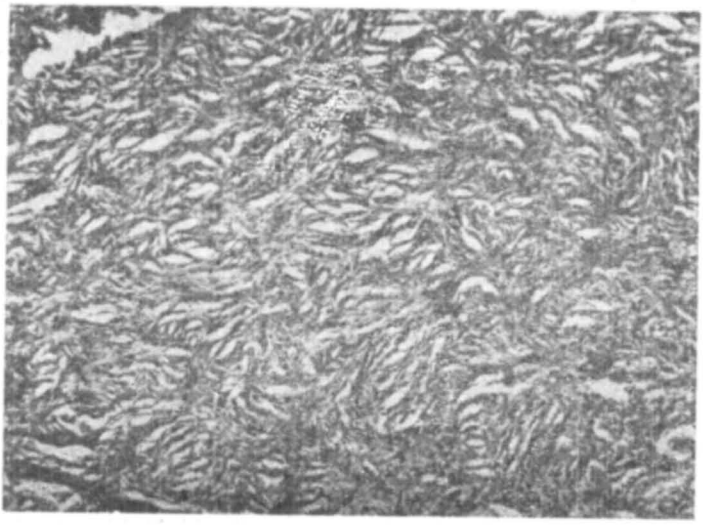

Fig. 2 Case 1 Photomicrograph ilustrates typical areas of sclerosing angioma. (Fig. H & EX 90)

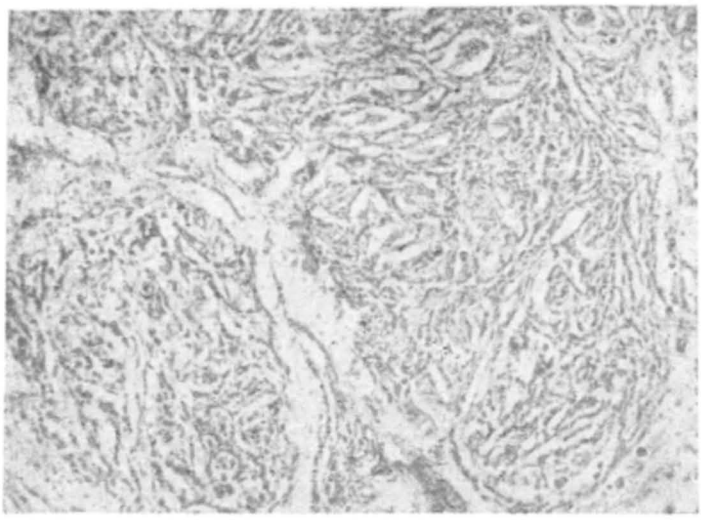

Fig. 3 Case 2 Photomicrograph illustrates circumscribed areas of angioendothelial spaces with collagen deposits. (H & EX 150)

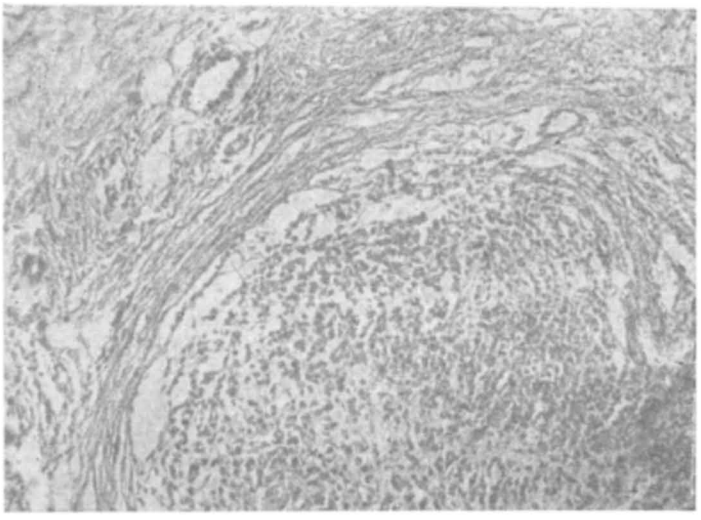

Fig. 4 Case 3 Photomicrograph illustrates histiocytic proliferation and collagen deposition in the form spherical masses. (H & EX 90)

masses. Some of these cells enclosed brown pigment which are negative with Perle stain. The cytoplasmic processes appear to lead into fine fibrils of fibrous tissue. Some of these with fibre process leading from them appear to be histiocytes. Endothelial spaces with clefts is yet another finding of the neoplasm. Many of the clefts of these endothelial spaces are partially or completely plugged with collagen. These conform to sclerosing angioma picture. The polymorphic histologic picture, all terminating into fibrous tissue is constitent with " Dermatofibroma ".

Case Report 2: A female aged 35 years had nodules round about the left elbow for over six months. They were three and subcutaneous sections of the tumour (1353 / 55) showed endothelial spaces grouped to-gether in the form of nodules. There is abundant collagen both inside and outside the endothelial clefts. Histiocytes were scattered all over. (Fig. 3) The findings are consistent with dermatofibroma.

Case Report 3: Male, aged 30 years had swelling over the right shoulder. It was excised a year ago. The swelling recurred over the same spot. Its mass was not adherent to the overlying skin and was clinically recognised as melanoma. The tumour was excised. Sections of the tumour (2570 / 62) showed spindle cell clusters encircled by fibrous tissue. In between the cells is seen thin strands of collagen. (Fig. 4) The apperances are that of dermatofibroma.

Comment: Clinical recognition of dermatofibroma is not commonly possible. True nature of the neoplasm is only disclosed on histological examination and owing to multiple histological patterns the growth assumes pathologists are likely to label it under several designations. It is best viewed as a reactive hyperplasia of histiocytic and fibroblastic cells.

Summary:
1. Histological appearances in three cases of dermatofibroma are recorded.
2. The need to differentiate nodules of dermatofibroma from nodules of similar appearance is stressed.