Multiple Disseminated Pyogenic Granulomas
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ABSTRACT
Pyogenic granulomas (Granuloma telengiectaticum) or lobular capillary haemangioma are classically described as solitary lesions, occurring in young individuals, usually at the site of previous trauma, with a tendency to recur after treatment. We describe an unusual case of multiple disseminated pyogenic granulomas in an elderly male caucasoid of Pakistani origin in whom more than 400 lesions occurred de novo without any antecedent history of trauma or skin disease, responded well to treatment and showed no tendency for recurrence. Multiple eruptive pyogenic granulomas are probably a rare subset of the disease, which can occur at any age, arise de novo or in association with a skin or systemic disease and do not exhibit a tendency to recur after treatment.


INTRODUCTION
Pyogenic granuloma (Granuloma telengiectaticum) or lobular capillary haemangioma is a relatively common, benign vascular lesion. The term pyogenic granuloma is actually a misnomer as the lesion is neither pyogenic nor is it granulomatous. Most lesions occur in a younger age group, are solitary and usually arise at the site of previous trauma. Typical lesions are bright red, pedunculated papules surrounded by an epidermal collarette. They are partially blanchable and non-pulsatile. Most common sites are the hands, face and upper trunk. Mucosal lesions tend to occur in the oral cavity or the perianal mucosa. Oral lesions tend to grow rapidly, often ulcerate and can be mistaken for a malignancy.

Dermoscopy of the lesions reveals red or pink homogenous areas (proliferating vessels) and a white scaly collarette (hyperplastic epithelium). They pursue a benign course. Recurrence after treatment is fairly common.

We report an uncommon subset of the disease with multiple disseminated such lesion.

CASE REPORT
A 71 years old male Caucasian, of Pakistani origin presented with a history of eruption of multiple red, papular lesions over the whole body for the past 3 months. The lesions were painless, non-itchy and progressively increasing in number and size. There were no systemic symptoms or any antecedent history of trauma, chronic medication, drug abuse or sexual promiscuity. The individual was married and the spouse was asymptomatic.

Clinical examination of the patient revealed more than 400, bright red papules 0.5 – 3 cms in size over the face, neck, trunk and limbs (Figures 1 and 2). These were non-tender, non-pulsatile and partially blanchable. There was no purpura, mucosal or satellite lesions.

His haemogram, chest radiograph and serology for AIDS, syphilis and hepatitis B and C were normal. Biopsy report revealed lobules of variably dilated network of blood filled capillaries in the papillary dermis, ringed by a myxoid stroma and surrounded by an inflammatory reaction consisting of lymphocytes and plasma cells. The epidermis was intact and there was no cellular atypia or extravasation of blood (Figure 3). The Warthin-Starry and Giemsa stains were negative for bacillary angiomatosis.

The patient was treated with multiple, fortnightly sessions of cryotherapy with liquid nitrogen. The lesions responded well to the treatment with no recurrence. Some of the untreated lesions also showed spontaneous regression and the patient was well and disease-free on his monthly follow-ups, 6 months after presentation.

DISCUSSION
Pyogenic granuloma is a fairly common benign, solitary, vascular lesion, usually occurring after recent injury. It is more common in females and younger people. This case in an elderly male was conspicuous for its spectacular multiplicity of lesions arising without any associated skin or systemic disease.

Pyogenic granuloma like lesions have developed in previously crusted acne lesions in patients on oral retinoids, as well as patients on topical retinoids.
Disseminated lesions have been described after an exfoliative dermatitis and after a hypersensitivity drug reaction. Multiple satellite lesions can develop after the primary lesion is treated or traumatized.

The differential diagnosis includes Cherry angiomas, Bacillary angiomatosis, Keratoacanthoma, malignant melanoma, Kaposi’s sarcoma, Glomus tumour, Eccrine poroma and atypical fibroxanthoma.

Histologically the angiomatous tissue tends to occur in discrete lobules or masses, hence the term lobular capillary haemangioma. It consists of a variably dilated network of blood filled capillaries surrounded by a myxoid stroma containing spindle shaped and stellate connective tissue cells and occasional mast cells. Immunohistochemical studies are positive for factor VIII related antigen, Ulex Europaeus agglutinin I and Vimentin.

Therapeutic modalities consist of surgical excision, electrocautery, cryotherapy, sclerotherapy, photodynamic therapy and lasers.

Cases of truly disseminated pyogenic granulomas have been previously described occurring congenitally in infants, children and young people, either occurring de novo or, in previously traumatized skin and also in patients with an accompanying systemic or skin disease. To the authors’ knowledge, this is the only case of multiple disseminated pyogenic granulomas reported from Pakistan and only a single case of disseminated lesions in an elderly patient, arising de novo without an underlying local or systemic pathology has been reported from the United States in 1986. In that case more than 700 lesions occurred in an elderly female, without any antecedent trauma to the skin and responded well to treatment. The stain for factor VIII related antigen was slightly reactive with the vascular elements but Ulex Europaeus lectin showed greater positivity. The present case was similar to that of Nappi et al. in that the lesions erupted in an elderly patient without any previous history of disease or dermatological trauma but, in this patient the number of lesions were limited to around 400. The maximal concentration of lesions was over the trunk like in the previously reported case and the lesions showed spontaneous regression. Special stains like factor VIII related antigen and Ulex Europaeus agglutinin could not be done in this case due to lack of facilities.

As some of the patients with spontaneous development of multiple pyogenic granulomas have later developed malignancies, it has been surmised that both exogenous trauma and endogenous factors (tumour cells) lead to mediators promoting the development of these vascular lesions. Hence, elderly patients should be followed-up diligently in the long-term for a hidden malignancy.

REFERENCES