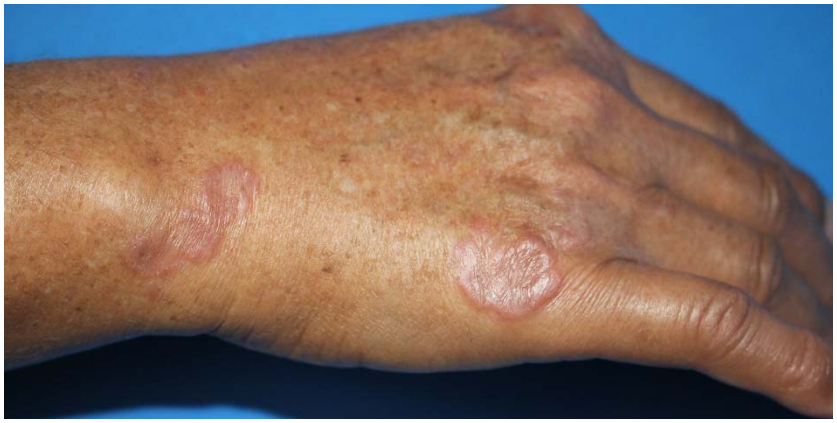
Case 23
A 69 year-old Thai man from Pathumthani
Chief complaint: Annular erythematous plaques on both dorsal hands for 6 months.



Present illness:
The patient developed multiple mildly pruritic, erythematous plaques on both dorsal hands for 6 months. The lesions increased in size and number over time.

Past history:
- Type 2 diabetes mellitus
- Dyslipidemia
- Intermittent claudication
- Parkinsonism
- Borderline personality disorder

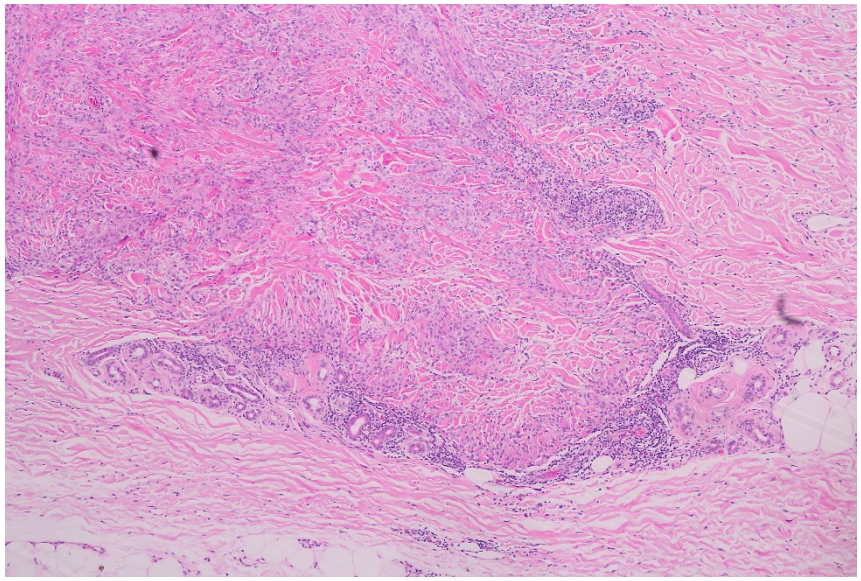
Family history:
There was no family history of similar cutaneous lesions.

Skin examination:
- Multiple annular coalescent firm, smooth surface, erythematous plaques, measuring 0.5 to 2.5 cm in diameter both dorsal hands and forearms

Physical examination:
- Systemic examination other than skin lesions revealed no abnormality.

Investigation:
- FBS 152 mg/dl, HbA1C 6.6%
- LDL 50 mg/dl, TG 252 mg/dl, Cholesterol 118 mg/dl, HDL 34 mg/dl

Histopathology: (S16-22441, right hand)



- Perivascular infiltrate of lymphocytes, interstitial and palisaded infiltrate of histiocytes in the dermis
- Deposition of mucin within the zone of palisaded histiocytes

Diagnosis: Localized granuloma annulare

Treatment:
- 0.05% clobetasol cream apply lesions twice daily
- Intralesional triamcinolone injection with 5.0 mg per ml into the elevated border

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Discussion:

Granuloma annulare (GA), first described by Radcliffe-Crocker in 1902[1], is a relative common benign cutaneous disorder with unknown prevalence. GA affects patients of all ages with female predominance, and no racial predilection. Localized GA occurs most commonly in younger patients of under 30 years old, while generalized GA is more likely to occur in middle-aged or older adults[2-,4].

The etiology of GA remains unknown, and the pathogenesis is poorly understood. GA may represent a reaction to many different triggering factors including trauma, insect bites, infection, vaccination, and drugs[1].

Clinical variants of GA include localized, generalized, subcutaneous, and perforating. Other reported rare subtypes include macular or patch, linear, follicular pustular form, and photo-distributed. More than one subtype of GA may coexist in the same patient.

Localized GA is the most common form, accounting for approximately 75 % of GA cases[2]. Typical presentations are arciform to annular firm skin-colored to erythematous papules or plaques measuring from 0.5 to 5.0 cm in diameter. Solitary umbilicated papules or nodules may also be present. The lesions are usually asymptomatic but can be pruritic, and rarely painful. The sites of predilection are dorsal hands and/or feet, ankles, lower limbs, and wrists[1,2,5].

The diagnosis of typical localized GA can be made from clinical examination. Histopathology is necessary when the presentation is atypical or in other subtypes of GA.

Histopathology is characterized by lymphohistiocytic granulomas with central degeneration of collagen (necrobiosis), and the presence of mucin in the upper and mid dermis, although any part of the dermis or subcutis can be involved. The histiocytes in GA have been described in four patterns: (1) interstitial pattern, (2) surrounding the palisading granulomas, (3) nodules that resemble sarcoidosis, and (4) a mixed pattern[6].

Several systemic associations have been reported, usually in generalized rather than localized GA, including DM, malignancy, thyroid disease, lipid abnormalities, human immunodeficiency virus (HIV), hepatitis B, hepatitis C, and rheumatoid arthritis[1,7-9]. However, most patients with GA are healthy and have no other abnormal physical findings.

Localized GA is often self-limited. More than 50 percent of these patients resolve within 2 years, in contrast to the generalized form, which has more chronic relapsing course, and rare spontaneous resolution[1,2].

Due to the self-limited and benign nature of GA, reassurance and clinical observation may be the treatment of choice for localized, asymptomatic disease. However, patients may need treatment if lesions are symptomatic or for cosmetic reasons. First-line therapies are topical high-potency corticosteroids with or without occlusion, and intralesional corticosteroid (triamcinolone) injection with 2.5 to 5.0 mg per ml into the elevated border[1,2].

Other treatment options reported with success in localized GA include cryotherapy and laser therapy (pulsed dye laser, fractional photothermolysis, excimer laser), 1 % topical tacrolimus ointment, and intralesional recombinant interferon gamma[1,11]. Phototherapy with localized cream PUVA therapy and photodynamic therapy (PDT) with 5 aminolevulinic acid (5-ALA) have been used with satisfactory results[1]. Systemic agents, based on case reports and case series, are usually reserved for generalized GA or severe cases[12].

References

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