Case report
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Rhinophyma-like granuloma faciale: an unusual clinical presentation of rare dermatosis

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Granuloma faciale (GF) is a rare, benign, chronic inflammatory dermatosis of unknown etiology that typically presents as asymptomatic, reddish-brown plaques localized to the face. Although its clinical appearance is often distinctive, rare variants may mimic other skin diseases leading to diagnostic challenges. The rhinophyma-like form of GF is exceptionally uncommon, with only a few cases reported in the literature. Recognition of this unusual variant is essential to avoid misdiagnosis with other dermatosis. We present a rare case of rhinophyma-like GF, emphasizing the importance of correlating clinical, diascopic, dermoscopic, and histopathologic findings to achieve an accurate diagnosis.

Key words: granuloma faciale, rhinophyma, dermoscopy, diascopy

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Rinofima-slični facijalni granulom: neuobičajena klinička prezentacija retke dermatoze

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Facijalni granulom (FG) predstavlja retku, benignu, hroničnu inflamatornu dermatozu nepoznate etiologije, koja se tipično manifestuje kao asimptomatske, crvenkasto-braon ploče lokalizovane na licu. Iako je njen klinički izgled često prepoznatljiv, retke varijante mogu imitirati druge bolesti kože, što dovodi do dijagnostičkih poteškoća. Rinofima-slični oblik FG izuzetno je redak, a u literaturi je do sada opisano svega nekoliko slučajeva. Prepoznavanje ove neuobičajene varijante ključno je za izbegavanje pogrešne dijagnoze sa drugim dermatozama. Prikazujemo redak slučaj rinofima-sličnog FG naglašavajući značaj korelacije kliničkih, dijaskopskih, dermoskopskih i histopatoloških nalaza u postavljanju tačne dijagnoze.

Ključne reči: facijalni granuloma, rinofima, dermoskopija, dijaskopija

Introduction

Granuloma faciale (GF) is a rare, chronic, benign inflammatory dermatosis of unknown etiology predominantly localized to the face. GF typically develops in middle-aged to older adults, with the peak incidence between the fourth and sixth decades of life (1-3). A slight male predominance has been noted, whereas pediatric cases are exceedingly uncommon (1-4).

Although GF most often manifests as a flat or slightly elevated plaque, unusual clinical variants have been described including ulcerative, keloid-like, annular, or extrafacial forms (1-3, 5-7). A rare clinical presentation is the rhinophyma-like GF characterized by thickening of the nasal skin that mimics rhinophyma. This uncommon variant can be easily misdiagnosed as phymatous rosacea, lupus vulgaris, sarcoidosis, or other chronic inflammatory skin diseases (8-11).

Herein, we report a rare case of rhinophyma-like GF presenting as a long-standing lesion on the nasal region which showed marked improvement following treatment with topical pimecrolimus.

Case Report

A 61-year-old male presented to our clinic with a 10-year history of a slowly enlarging nasal lesion. Although the lesion was asymptomatic, the patient sought dermatological evaluation due to cosmetic concerns. Apart from epilepsy, for which he had been receiving barbiturate therapy over the past several years, his medical history was unremarkable.

Clinical examination revealed a solitary plaque with a pink to violaceous color and follicular accentuation, measuring approximately 2×1 cm on the left nasal area (Figure 1A). Diascopy demonstrated the characteristic “apple jelly” appearance, producing a yellowish-brown coloration under glass slide pressure (Figure 1B). Dermoscopy revealed prominent follicular openings, linear branched vessels, a perifollicular whitish halo, and areas of homogeneous yellowish coloration (Figure 1C, D).

The differential diagnosis included sarcoidosis, lupus vulgaris, granuloma faciale, and pseudolymphoma. Further diagnostic investigations were therefore undertaken. Chest radiography, abdominal and lymph node ultrasonography showed no abnormalities. QuantiFERON-TB testing, angiotensin-converting enzyme (ACE) levels, and chitotriosidase activity were within normal limits.

Histopathological examination revealed a Grenz zone (Figure 1E), perivascular fibrosis (Figure 1F), and a dermal polymorphous inflammatory infiltrate composed of lymphocytes, eosinophils, neutrophils, plasma cells, and extravasated erythrocytes (Figure 1G), findings consistent with GF.

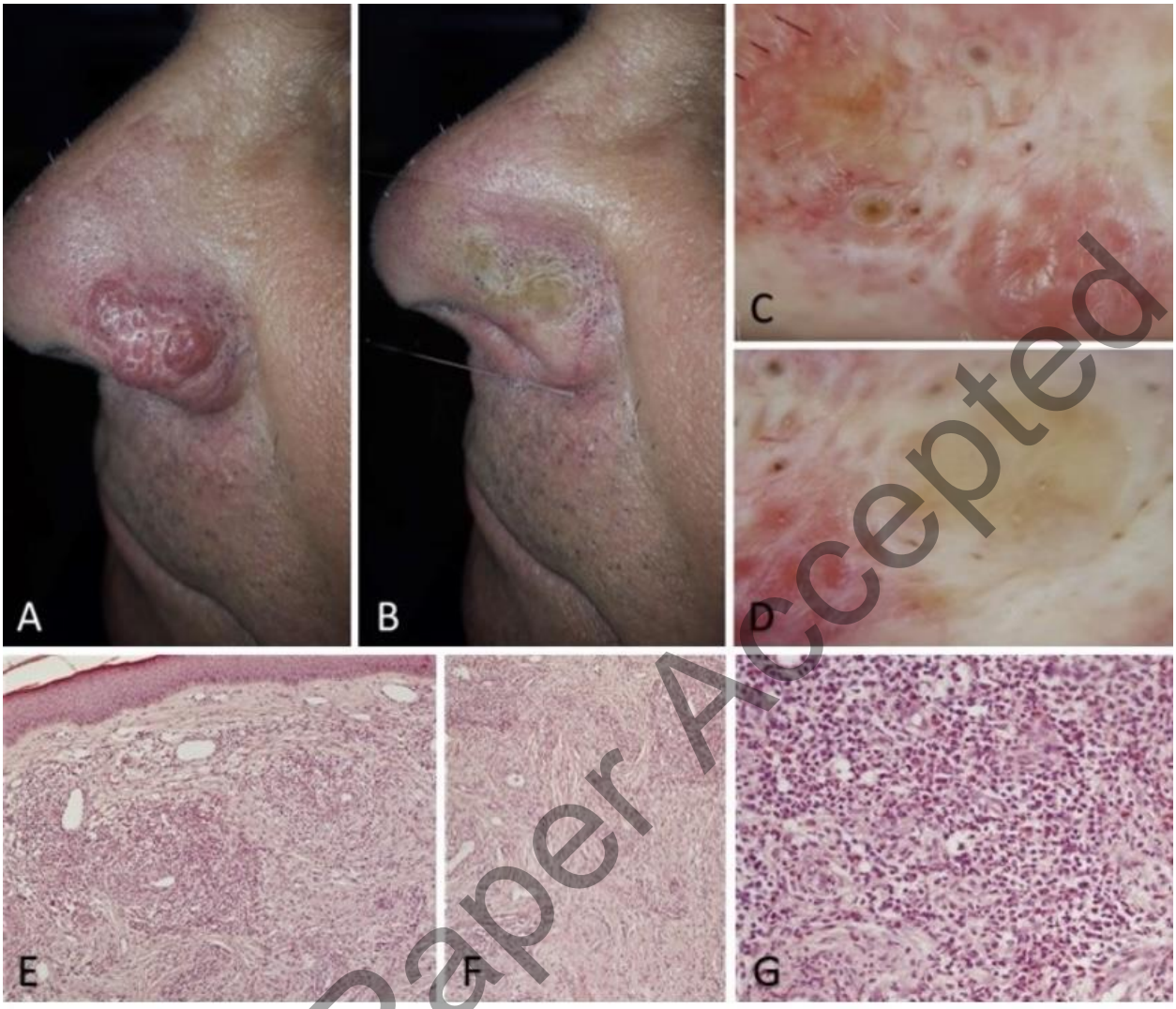

Figure 1. Clinical, diascopic, dermoscopic, and histopathologic features of rhinophyma-like GF. (A) Solitary violaceus to pink plaque on the left nasal area. (B) Yellowish to brown coloration of the lesion on diascopy. (C,D) Dermoscopy highlighted a prominent follicular openings, linear branched vessels, perifollicular whitish halo and areas of homogenous yellowish color. (E) Presence of Grenz zone on histopathology (HE x 10), perivascular fibrosis (D, HE x 10) and dermal polymorphous inflammatory infiltrate (G, HE x 20).

Topical therapy with 1% pimecrolimus cream applied twice daily was initiated, resulting in significant clinical and dermoscopic regression of the lesion after three months (Figure 2A–C).

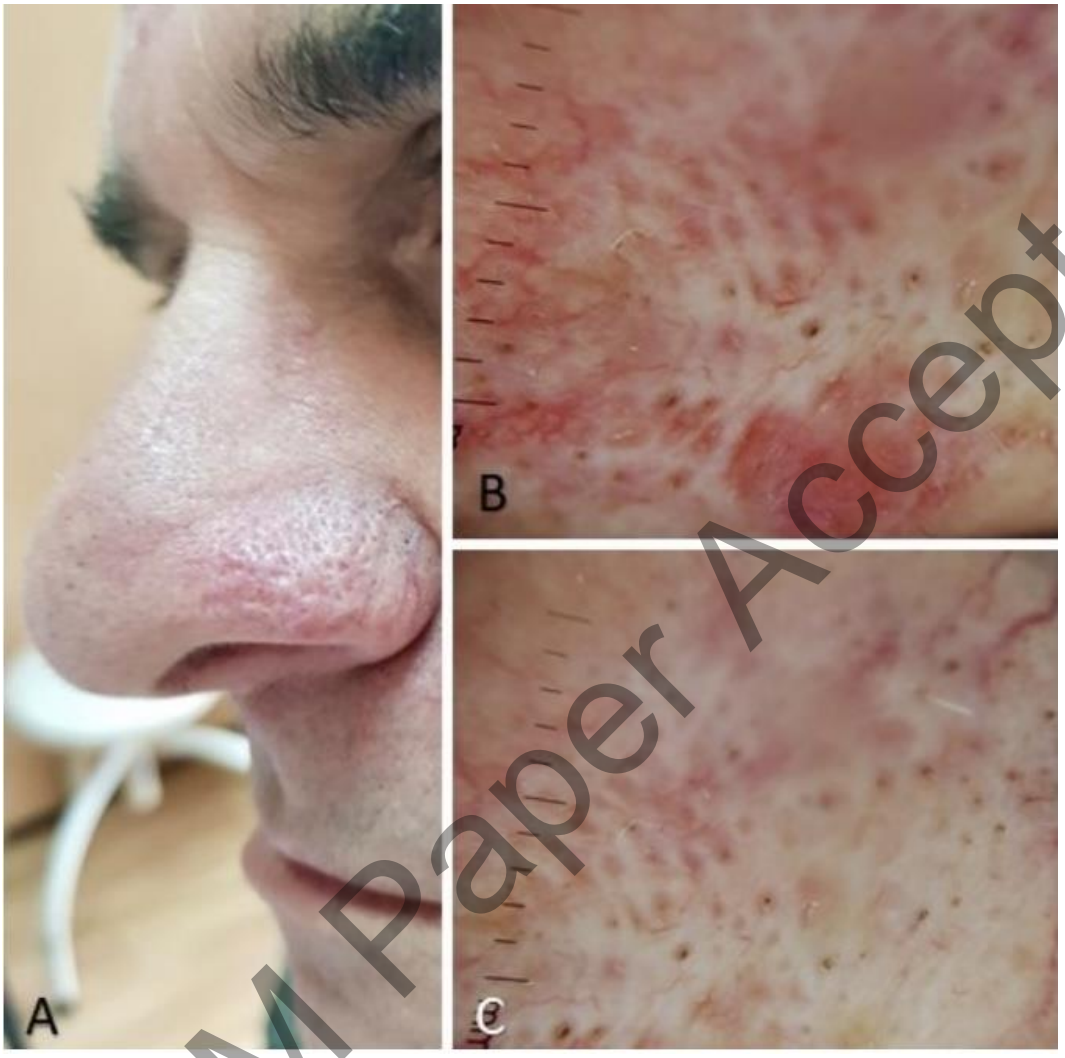

Figure 2. Clinical (A) and dermoscopical (B,C) regression of rhinophyma-like GF.

Discussion

GF is a benign inflammatory dermatosis with a typically chronic but indolent course and a favorable prognosis (1–7). The condition was first reported by Wigley in 1945 as eosinophilic granuloma of the skin (12). Lever later recognized its potential for extrafacial localization, and

Pincus formally introduced the term granuloma faciale in 1952 (12,13). Although its name implies a granulomatous process (14), GF is characterized histologically by a dense, mixed inflammatory infiltrate of neutrophils, eosinophils, lymphocytes, and plasma cells, separated from the epidermis by a Grenz zone (1-7). The pathogenesis of GF remains incompletely understood, although hypersensitivity reactions, chronic sun exposure, and localized vascular injury have been proposed as contributing factors (1-3). Current evidence suggests that GF represents a chronic, localized form of leukocytoclastic vasculitis affecting small cutaneous vessels (1-3).

GF typically presents as solitary or multiple asymptomatic plaques, papules, or nodules that develop slowly over months or years. The lesions are usually reddish-brown to violaceous colored, with a smooth or slightly elevated surface, and often display follicular accentuation and/or telangiectasia (1-7). Sun-exposed areas of the face are most commonly affected, particularly the nose, cheeks, forehead, and preauricular regions (1-3). A mucosal counterpart of GF known as eosinophilic angiocentric fibrosis has been reported to affect the oral and upper respiratory mucosa (15). In addition to the classical facial presentation, several rare clinical variants of GF have been reported such as tumorous, annular, and extrafacial forms, along with less common clinical types such as keloid-like, atrophic, ulcerated, or rhinophyma-like lesions (5-11).

Rhinophyma-like GF represents an exceptionally rare clinical variant, with only a few cases reported in the literature (7-11). The typical clinical presentation is characterized by thickening of the nasal skin resembling rhinophyma, which often leads to initial misdiagnosis as phymatous rosacea (8-11). Chatelain et al.[8] were the first to report a case of GF presenting as phymatous thickening of the nasal skin, closely resembling rhinophyma. Similar cases were subsequently described by Fuente et al.[9] and Bakkuor et al.[10], which were successfully treated with clofazimine and CO_2 laser therapy, respectively. Finally, Allegue et al.[11] documented an additional case of this

rare clinical variant. Notably, all reported rhinophyma-like GF cases have occurred in adult males, including our patient.

Dermoscopy serves as a valuable noninvasive diagnostic tool in GF facilitating its differentiation from other neoplastic, granulomatous, and inflammatory dermatoses. The first dermoscopic description of GF was provided by Caldarola et al.[16], who noted follicular prominence, a grayish background with white streaks, and irregularly branched vessels. Lallas et al.[17] and Teixeira et al.[18] later confirmed these findings, describing consistent patterns across several patients. More recently, reports by Jardim et al.[19] have drawn attention to amorphous yellow areas on dermoscopy, correlating with abundant hemosiderin, a feature also seen in our case.

Interestingly, in our case, diascopy revealed the characteristic "apple-jelly" appearance, a finding classically associated with lupus vulgaris and other granulomatous disorders such as sarcoidosis and tuberculosis cutis (19-20). This phenomenon results from compression of the superficial vasculature and subsequent visualization of the dense dermal inflammatory infiltrate through the overlying epidermis (20), a finding that was also demonstrated histopathologically in our patient. Although the "apple-jelly" appearance observed on diascopy is not pathognomonic for GF, its presence can support the clinical suspicion of GF when considered in conjunction with dermoscopic features. However, histopathology remains the gold standard for diagnosis.

Treatment of GF can be challenging due to its chronic course, variable therapeutic response, and frequent recurrences. A wide range of therapeutic modalities have been employed, either alone or in combination. These include topical agents such as pimecrolimus and tacrolimus, topical, intralesional, and systemic corticosteroids, as well as local and systemic dapsone, antimalarials, and clofazimine. (1-3,9,10,23). In a recently reported case of therapy-resistant GF, adalimumab

produced substantial clinical improvement, suggesting that TNF-α blockade may represent a promising therapeutic option for refractory disease (24). Physical therapies have also been proposed, including cryotherapy, which is inexpensive and widely accessible but typically provides only limited efficacy (23). In recalcitrant or drug-resistant cases, laser therapy or surgical excision may be considered as alternative options, especially for cosmetically significant or nodular lesions (23).

Conclusion

We report a rare rhinophyma-like presentation of GF involving the nasal area, which demonstrated excellent therapeutic response to topical pimecrolimus. This case reinforces the value of recognizing atypical manifestations of GF and the importance of diascopic, dermoscopic, and histopathologic correlation in achieving an accurate diagnosis.

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