Pyoderma Faciale: A Case Report
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INTRODUCTION

Pyoderma faciale is an inflammatory condition that classically affects the mid-facial region in women in their 20s and 30s. While it has a unique presentation, it may be confused with other granulomatous, infectious and inflammatory conditions that affect the face in this population. Making the distinction is important in order to promptly initiate appropriate therapy. We review some of the conditions that should be considered in the differential, and discuss how to make the distinction between these entities.

CASE:

A 24-year-old female presents to clinic concerned about a rash on her face that started one month prior to the visit. The rash began on her right cheek, right paranasal area, and chin as erythematous papules and pustules which coalesced in some areas to form erythematous plaques. It rapidly progressed to involve both cheeks and her chin. Upon further questioning she admitted to malaise and subjective fevers. She had no prior treatment for this condition. Her past medical history was remarkable for hypothyroidism for which she was taking Synthroid 50 mcg daily. Her past surgical, social, and family histories were not remarkable. A discussion about initiating treatment with isotretinoin was held with the patient but she initially declined, so she was given a prednisone taper and started on doxycycline. Upon completion of the steroid taper her rash flared and she agreed to initiate isotretinoin treatment at her one month follow up visit. She was given a second prednisone taper and started on isotretinoin 10 mg daily, which was increased to 20 mg at her next visit since her prednisone taper her rash flared again and she agreed to initiate treatment with isotretinoin alone, or patients who are unable to tolerate the side effects.

A special consideration for pyoderma faciale is the patient’s pregnancy. The mainstay of therapy for pyoderma faciale includes numerous antibiotics and isotretinoin, are contraindicated in the pregnant patient. Isotretinoin is an absolute contraindication, as it has been associated with multiple congenital abnormalities, including cranofacial, cardiovascular, and neural system congenital malformations. Systemic steroids are a relative contraindication when benefits of use outweigh risks, but has been associated with intratable growth retardation, maternal diabetes mellitus, and hypertension. Multiple antibiotics generally used for this condition are also contraindicated in pregnancy, including tetracyclines, anti-androgens, contraceptives, and dapsone, with documented congenital defects with use. A safe and effective alternative found through various case studies of pregnant patients with pyoderma faciale is the use of macrolides. Azithromycin is generally considered the best tolerable antibiotic, without risk of congenital malformations of miscarriage.

One case report describes rosacea fulminans with ocular involvement. Slit examination was normal with keratitis and conjunctivitis, with multiple corneal opacities with secondary vascularization and thinning. Treatment involved prednisolone 30 mg, and topical tetracycline, and dapsone, with documented conjunctival defects with use. A safe and effective alternative found through various case studies of rosacea fulminans with ocular involvement is the use of macrolides. Azithromycin is generally considered the best tolerable antibiotic, without risk of congenital malformations of miscarriage.

DISCUSSION:

Lupus miliaris disseminatus faciei is a granulomatous entity that can appear similar to pyoderma faciale (9). It presents as asymptomatic, discrete, red-brown, dome shaped papules that erupt bilaterally on the central area of the face, particularly in the periorbital area. (10) Histopathology is characterized by epitheloid granulomas (11), as opposed to the histopathology of pyoderma faciale which shows an inflammatory process. Unlike pyoderma faciale, clinical history includes diffuse flushing, and there is lack of persistent erythema or telangectasia. Studies show that early initiation of therapy has been shown to clear the condition without any scarring (12). Topical tacrolimus and dapsone are effective treatments. However dapsone in combination with low dose prednisone are appropriate alternatives.

Granulomatous perifollicular dermatitis is another granulomatous condition that may resemble pyoderma faciale both in morphology and distribution. It is characterized by pink to fleshy-colored papules that erupt in the perioral and periorbital areas, with a few cases reporting lesions outside of the facial area, including extremity, trunk, and a few reported cases on the labia majora (13). Histology reveals a dense granulomatous infiltrate with surrounding prominent lymphocytes (14). While pyoderma faciale typically affects middle-aged women, granulomatous perifollicular dermatitis is most commonly found to affect prepubertal black children particularly those with a Caribbean or African descent, occlusion, and young children. (15) Topical steroids are heralded as either the cause of this condition or a major exacerbating factor. Therapy involves systemic antibiotics such as metronidazole in young patients or tetracycline in patients over 8 years of age.

Acne conglobata is an inflammatory condition that also resembles pyoderma faciale. The mainstay of therapy includes numerous antibiotics, steroids and isotretinoin. Isotretinoin is contraindicated in the pregnant patient. Acne conglobata is more commonly found to affect males, with a negative family history. It is characterized by numerous comedones and large abscesses with interconnecting sinuses, cysts, and inflammatory nodules generally affecting young males around 16 years of age. Lesions appear on the face, back, buttocks, chest, anterolateral aspects of the upper arms, and shoulders. Therapy with Isotretinoin is recommended early on to reduce the risk of scarring. Additional treatments include oral antibiotics, intralesional and systemic steroids. Other therapeutic options include CO2 laser for sinus tracts, and fractional laser for scars (16). The subpopulation affected, the presence of comedones, and the distribution of the lesions allows the clinician to differentiate between these two diseases.

Tinea facie in some cases can be difficult to distinguish clinically from pyoderma faciale. Tinea generally affects healthy children, although there are cases that have been reported in immunosuppressed individuals. The causative organisms are dermatophytes of the Trichophyton, Microsporum, and Epidermophyton genera (17). Tinea facie may lack the typical annular rings found in other fungal infections of the skin, and this can make the diagnosis difficult. A simple KOH prep can be performed in the office to look for dermatophytes in order to differentiate between the two conditions. Treatment of choice are topical antifungal drugs such as azoles (18). It is an important diagnosis to consider because misdiagnosing this condition and treating with steroids will exacerbate tinea facie.

REFERENCES: