Case Report

Acne Conglobata after Pregnancy

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Abstract

Acne conglobata is an uncommon and severe, inflammatory form of acne vulgaris that is characterized by interconnecting abscesses, draining sinus tracts, and severe disfigurement. We present a case of a 26-year-old female with a past medical history of mild acne that suddenly developed many papules, pustules, and fluctuant nodules on her face and back after pregnancy that was consistent with a diagnosis of acne conglobata. Resolution of the skin lesions was seen after treatment with oral steroids, antibiotics, and retinoids. Maintenance therapy has been with topical retinoids.

ABBREVIATIONS

AC: Acne Conglobata

INTRODUCTION

Acne conglobata is a severe, inflammatory form of acne vulgaris. On skin examination, one will characteristically find interconnected abscesses, draining sinus tracts, scarring, and severe disfigurement on the face, chest, arms and back. This condition traditionally affects patients between the ages of 18 to 30. The etiopathogenesis of this condition remains unclear; however, it has a strong positive correlation with high levels of testosterone and is most often seen in males. Treatment typically includes oral isotretinoin and steroids. In the case presentation to follow, we present a case of a 26-year-old female patient who developed acne conglobata after pregnancy.

CASE PRESENTATION

A 26-year-old female referred to our Acne Clinic by a practical dermatovenereologist because of a severe facial eruption that had developed 6 weeks after giving birth. Her major concerns were her appearance and the painfulness of the lesions. Past medical history was significant for mild acne over the past 10 years along with oral contraception use (ethinylestradiolum + dienogestum) prior to pregnancy. The patient restarted her oral contraception two weeks prior to presenting to our clinic. Review of symptoms was otherwise unremarkable. On physical examination, many papules, pustules and fluctuant nodules were present on her face and back (Figure 1). These findings led to a diagnosis of acne vulgaris and treatment with oral amoxicillin/clavulanate, topical erythromycin and ichtoxyl was initiated.

At her follow-up visit, there was no improvement on the aforementioned therapeutic regimen. C-reactive protein (CRP) levels and cultures of the pustules were done. CRP levels were normal and no growth was noted on the cultures. With a lack of therapeutic response and the subsequent findings, a diagnosis of acne conglobata was made. All previous medications were stopped; and to reduce inflammation, the patient was started on a combination of oral doxycycline (200 mg for five days followed by 100 mg for ten days) and prednisone 20 mg orally to reduce inflammation. In addition to systemic therapy, topical therapy consisting of ichtoxyl with salicylic acid 2% was recommended. A rapid therapeutic response was noted within a few days of starting this therapeutic regimen. Thereafter, the steroid dose was reduced by 5mg every week and isotretinoin 0.3 mg/kg/day orally was started on week three of therapy.

At baseline, laboratory tests were within normal limits (including CRP), only hypertriglyceridemia was present (3.13 mmol/l). On the face, redness, many papules and some pustules
and nodules were present (Figure 2). With respects to side effects, the patient only endorsed mild chelitis while taking isotretinoin. Hypertriglyceridemia was present on follow-up labs, but it did not worsen (3.76 mmol/l at maximum). The dose of isotretinoin was increased to 0.5 mg/kg/day after one month of therapy; cumulative therapeutic dose was 130 mg/kg for the entire 9 month treatment course. At the end of the isotretinoin treatment, only small redness and slight scars on the cheeks were present (Figure 3), which improved greatly with repeated dermaroller treatments (Figure 4). She currently uses topical retinoids for maintenance therapy.

**DISCUSSION**

Acne conglobata (AC) is an uncommon form of acne that presents with numerous comedones, papules, pustules, nodules, abscesses, and draining sinus tracts [1]. The comedones often occur in a group of 2 or 3. Cysts contain foul-smelling seropurulent material that returns after drainage. Sinus tracts persisting for an extended period of time can be present. When the lesions do eventually heal, they leave scars that can be the usual type of acne scar (atrophic) or can be the raised bump normally left behind by a burn or a cut (hypertrophic) interconnecting abscesses and irregular scars (both hypertrophic and atrophic), often producing pronounced disfigurement. Usually the chest, the shoulders, the back, the buttocks, the upper arms and the thighs are affected, but there are also some reports of facial localization [2].

It affects males more frequently than females. AC usually occurs in young adults aged 18-30 years, but infants may develop this condition as well. It usually persists into the fourth decade of life. AC may develop as a result of a sudden deterioration of existing active papular or pustular acne, or it may occur as the recurrence of acne that has been quiescent for many years.

Severe scarring produces psychological distress. Individuals with this diagnosis are often ostracized and suffer from anxiety and depression.

The cause of this condition is unknown, but it has been associated with high levels of testosterone. It can be caused by anabolic steroid abuse and sometimes appears in men after finishing testosterone therapy [3]. It can also happen to someone who has a tumour that releases large amounts of androgens [3], or to people in remission from autoimmune diseases, such as leukemia. Severe AC can be associated with an XXY syndrome [4]. Normal HLA-A and HLA-B antigen frequencies have been found in a series of 65 patients [5]. In certain persons, the condition may be triggered by exposure to halogenated aromatic hydrocarbons, halogen ingestion, thyroid medication, hypnotics, sedatives, or lithium [6].

Treatment of acne conglobata can be challenging and may require a combination of medicines. Topical treatment is usually ineffective. The therapy of choice includes isotretinoin 0.5-1 mg/kg/day for 4-6 months along with simultaneous use of systemic steroids, such as prednisone 1 mg/kg/day for 2-4 weeks. Alternative therapies include oral tetracycline, minocycline, or doxycycline. Oral tetracycline antibiotics should not be combined with oral isotretinoin because of an increased risk of pseudotumour cerebri. For treatment of resistant cases, dapsone 50-150 mg/day is recommended; this treatment should be carefully monitored [7]. Treatment of AC with infliximab has also been reported [8]. AC has even been successfully treated with a combination of carbon dioxide lasers and topical tretinoin therapy [9]. When severe AC is unresponsive to more accepted options, modern external beam radiation may be an alternative [10]. Intralesional triamcinolone or cryotherapy may also be valuable [11]. Occasionally, surgical excision of interconnecting large nodules may be beneficial [12].

Suicidal ideation, a concern in seemingly healthy adolescents, should be anticipated in those with cosmetically disturbing skin disorders, especially in adolescent males with AC [13]. It may be wise to order routine screening for psychological disturbance in adolescents with this diagnosis. Use of isotretinoin is not contraindicated in those with depression [14].

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**Figure 2** The patient before the isotretinoin treatment.

**Figure 3** The patient after the isotretinoin treatment.

**Figure 4** The patient after repeated dermaroller treatments.
Our case was clinically a typical example of acne conglobata. The affected person was female although AC usually affects men. The age of our patient was within normal limits. Facial localization was a less common one. A possible connection with hormonal changes after pregnancy as a trigger with our patient was suggested. There is sparse information about acne appearing during pregnancy or after delivery. Ratzer reviewed over 400 women about the influence of marriage, pregnancy and childbirth on acne vulgaris [15]. Pregnancy improved acne in 58%. After childbirth 75% of women reported an improvement, 13% experienced no difference and 12% became worse. Reviewing the literature, Ratzer found report of aggravation of acne in 2 patients during pregnancy, but no report of acne during lactation. We found only one other reference of AC appearing after pregnancy [16].

CONCLUSIONS

Our case highlights a possible connection between hormonal changes after pregnancy and the development of acne conglobata. It is important to recognize this condition and its possible triggers. The sooner this condition is recognized, the sooner appropriate therapy can be started and permanent disfigurement can be avoided.

REFERENCES