

Rosacea fulminans during pregnancy

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Summary

Background: Rosacea fulminans (RF) is a severe form of facial dermatosis presenting with a sudden onset of numerous facial pustules, papules, and erythema. During pregnancy its treatment may be difficult and can have an impact on obstetrical outcomes. **Case:** A 37-year-old woman during the 37th week of her fourth pregnancy presented RF that was associated with ocular manifestations. The usual treatment with isotretinoin was contraindicated during pregnancy and the patient started an alternative treatment with prednisone and azithromycin. After delivery at 38 weeks of gestational age, there was a significant improvement. **Conclusion:** RF is a severe dermatological disease with unknown etiology and with a rapid improvement in the immediate postpartum period.

Key words: Rosacea; Acne; Pregnancy.

Introduction

Rosacea fulminans (RF) is a chronic facial skin disease of unclear origin associated with numerous papules, pustules, intense erythema, and telangiectasia [1]. The etiology is unknown but is probably multifactorial [2]. Rosacea can have a negative impact on the quality of life [3]. The authors report a new case of RF during pregnancy associated with ocular disease.

Case Report

A 37-year-old African woman had a history of acne vulgaris as a teenager. She had three pregnancies with a cesarean section delivery and no obstetrical complications. During her fourth pregnancy, she had a monthly follow up and three normal fetal ultrasounds. The oral glucose tolerance test during the 25th gestational week revealed the presence of gestational diabetes. The patient received nutritional counseling with diet and exercise and kept the blood glucose at normal levels without any insulin treatment.

At 37 gestational weeks and three days she was admitted in the emergency room for the appearance of sudden-onset painful facial lesions that had been present for the last 15 days. The dermatologic examination revealed many pustules, papules, and nodules with edema and exclusive facial distribution (Figure 1). There was no fever, no systemic symptoms, and no dermatological lesions on the back or on the chest. The clinical diagnosis of RF was made. The ophthalmologic examination showed the presence of conjunctivitis and inflammatory keratitis without corneal perforation. She was treated by artificial tears, cleansing of the eyelashes, 35 mg of prednisone daily, and azithromycin one gram/ daily and paracetamol three grams daily. Only a small improvement was seen during the following days.

The patient had a planned cesarean delivery at 38 weeks and three days (presence of uterine scar from three previous cesarean deliveries), and gave birth to a healthy girl that weighted 2,570 grams (< 10th percentile).

The patient had a dermatologic follow up every 15 days in postpartum. She continued the treatment with azithromycin one gram daily and prednisone 25 mg daily. Improvement was seen in the immediate postpartum period. One month after delivery isotretinoin 20 mg daily was started. Two months after delivery there was a net improvement in the facial lesions. Written informed consent was obtained from the patient for publication of this case report.

Discussion

Although, the etiology of RF is unknown and its pathogenesis is not well understood [1], it is currently believed that many factors may be involved as hormonal, genetic, vascular, immunological, sunlight, stress, and certain foods [4]. RF usually occurs in preadolescents and affects mainly women [1]. Additionally, previous studies [5, 6] have reported an association between RF and pregnancy and suggested a possible triggering role for endocrine factors in its pathogenesis. The present patient had no prior history of RF but acne vulgaris during adolescence. Lesions may appear in third trimester, as in the present case or during any term of the pregnancy and in the postpartum period [7].

A large epidemiological study estimated that the prevalence of ocular manifestations of RF was about 20% of the cases [1]. Serious complications like ocular ulceration, perforation, and defective vision can occur [8]. The present patient presented inflammatory keratitis without corneal perforation and she was treated with artificial tears. RF could be the cause of a significantly negative impact on the quality of life [4] and is characterized by a sudden onset of



Figure 1. — A) Rosacea fulminans during pregnancy that included pustules, papules, and nodules with edema and exclusive facial distribution. B) At two months after delivery there was a net improvement in the lesions.

pustules, papules, and nodules with facial erythema. It affects predominantly the face and patients may present feelings of shame, disarray, anxiety, and have a negative body image even depression [3].

The differential diagnosis is not always easy. The National Rosacea Society established specific clinical criteria for the diagnosis and a standardized classification [9]. In the present case there were no diagnostic difficulties since the patient presented the typical facial lesions and ophthalmic involvement. The medical management of RF during pregnancy is a real therapeutic dilemma because the most effective treatment includes isotretinoin, tetracycline, and antiandrogenic, and are all contraindicated during pregnancy [10]. The systemic treatment by isotretinoin has been associated with a high risk of teratogenicity [11]. The present authors preferred azithromycin that is a good alternative for the treatment of inflammatory acne and can present a better tolerance than erythromycin in association to prednisone. The administration of oral steroids is usually required to control RF [10]. The systematic use of steroids during pregnancy can induce complications like gestational diabetes mellitus intrauterine growth retardation, and hypertension [8, 10]. The present patient had a positive oral glucose tolerance test positive at 25 weeks of pregnancy. The weight of the child after birth was inferior to the 10th percentile and patient started the systemic steroid treatment only for a period of one week.

The patient had three previous pregnancies without any dermatological manifestations and only at the end of her fourth pregnancy she presented the characteristic lesions of RF with a moderate improvement in the antenatal period

after the beginning of the treatment and a significant improvement after delivery.

Conclusion

RF is a severe uncommon condition associated with an important impact on the quality of life and rarely occurs during pregnancy, and can have an impact on the outcome of the pregnancy. Although its etiology is unknown, the presence of a female predominance its association with pregnancy with improvement during the postpartum period, suggesting a hormonal implication in its pathogenesis.

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