Systemic Steroids, Clarithromycin and Metronidazole in the Treatment of Rosacea during Pregnancy

Clanner-Engelshofen BM, Schwaiger H, Plewig G, Wolff H, Ruzicka T and Reinholz M*  
Department of Dermatology and Allergology, University of Munich (LMU), Munich, Germany

Abstract
Rosacea is a common skin disease with a predilection for the face. Patients suffer from symptoms like flushing, redness of the face, telangiectasia, pustules, or papules. A more acute form is rosacea fulminans that occurs preferentially in women. Hormonal fluctuations as during a pregnancy can aggravate existent rosacea. The case of a female patient is presented, who was in the 26th week of her pregnancy. She discontinued her usual rosacea medication when she became pregnant. The patient developed rosacea fulminans, which was treated with systemic corticosteroids as recommended. She responded well to clarithromycin 250 mg for three times a week in combination with topical treatment using metronidazole 0.75% creme, continuing this regimen until a stable result was obtained.

Based on the observations in this case study the therapy of rosacea fulminans with clarithromycin can help to reduce the symptoms, especially since treatment with systemic isotretinoin and doxycycline is contraindicated during pregnancy.

Keywords: Rosacea; Rosacea fulminans; Clarithromycin; Pregnancy

Introduction
Chronic skin diseases with a facial manifestation like rosacea significantly affect the patient’s quality of life. Rosacea can appear similarly to acne with erythema, pustules, papules, and even nodules but without comedones. Fair-skinned individuals have a higher prevalence to develop rosacea. There are contradictory reports in the literature. For Germany a study in 2016 determined a prevalence of 12.3%. In the last years, the therapy has improved [1-4]. A successful treatment of rosacea should consider the individual course of disease. It includes behavioural modification regarding trigger factors like heat, alcohol, or spicy food [5]. An urgent and special form of rosacea, which predominantly affects women, is rosacea fulminans. Formerly, it was also described as pyoderma faciale [6] a misnomer as an infectious etiology is unlikely and an increased incidence during pregnancy is reported [7]. For the treatment of rosacea fulminans the German Guidelines for the therapy of rosacea recommend oral corticosteroids and isotretinoin [1]. This treatment regimen is untenable due to the teratogenicity of systemic retinoids. Newer findings confirm the effectiveness of macrolide antibiotics especially in pregnant patients [8,9].

Case Report
The 32-year-old female patient visited the clinic for dermatology of the LMU Munich with the initial diagnosis of exacerbation of her pre-existing acne. She had the imperative desire to have children and suffered from a polycystic ovarian syndrome, thus she was formerly treated with dexamethasone 0.5 mg and metformin 750 mg. When she sought advice, she was in the 26th week of pregnancy and took levothyroxine 50 µg, vitamin D3 1,000 IU, and folic acid 5 mg. The skin presented with infiltrated papules and pustules, fistulous ducts, and reddish, inflammatory nodes, but no comedones (Figure 1a). No other acneiform lesions were found on back or chest. The patient reported no other health problems and blood test parameters were normal. Bacterial cultures from the abscess-forming nodes revealed coagulase negative staphylococi. Rosacea fulminans was diagnosed. As recommended by the German Guidelines for the therapy of rosacea, she was treated with prednisolone 5 mg for one week and reduced the dose rate to 2.5 mg in the second week. This low-dose approach was chosen based on the patients experience with dexamethasone, the slightly increased antibiotics especially in pregnant patients [8,9].

*Corresponding author: Markus Reinholz, Department of Dermatology and Allergology, University of Munich (LMU), Munich, Germany, Tel: +49 89 4400 56010; E-mail: Markus.Reinholz@med.uni-muenchen.de

Received August 28, 2017; Accepted April 06, 2018; Published April 12, 2018

Citation: Clanner-Engelshofen BM, Schwaiger H, Plewig G, Wolff H, Ruzicka T, et al. (2018) Systemic Steroids, Clarithromycin and Metronidazole in the Treatment of Rosacea during Pregnancy. J Clin Case Rep 8: 1100. doi: 10.4172/2165-7920.10001100

Copyright: © 2018 Clanner-Engelshofen BM, et al. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.
equivalent prednisolone dose is a save medication during pregnancy. Additionally, a treatment with oral clarithromycin 250 mg three times a week was started. After 3 weeks, the skin lesions had reduced substantially (Figure 1b). In addition, metronidazole 0.75% creme once daily was prescribed. One month later the patient presented with good results compared to her first visit (Figure 1c). Due to the good toleration of the therapy, the patient wanted to continue the combined low-dose antibiotic treatment in case of recurrence of the skin lesions.

Discussion

The use of drugs during pregnancy requires consistent clinical surveillance and should be restricted to severe diseases. Rosacea fulminans or severe papulopustular rosacea may not be accompanied by systemic symptoms, though affected patients evidently suffer from the disturbing skin lesions. Rosacea fulminans is characterized by a sudden onset of facial skin lesions like reddish nodules, papules and pustules [1]. As it is often associated with pregnancy or oral contraception, hormonal factors could be a trigger [7]. Systemic corticosteroids and isotretinoin are recommended as first line treatment [1,10,11]. During pregnancy or in case of the desire to have children isotretinoin is contraindicated. The use of systemic corticosteroids during pregnancy should be carefully considered as they can cause maternal diabetes mellitus and hypertension as well as a retardation of fetal growth.

Therapy of rosacea during pregnancy or for patients with a desire to have children has been discussed, especially macrolide antibiotics are a therapeutic option as they are classified as safe for the unborn child [8,9]. A common side effect of erythromycin is gastrointestinal discomfort. In the treatment of papulopustular rosacea its application should be considered as they can cause maternal diabetes mellitus and hypertension as well as a retardation of fetal growth. The sub-antimicrobial but anti-inflammatory therapy with 250 mg clarithromycin three days per week achieved a reduction of the skin lesions. In combination with a frequently used topical treatment with metronidazole creme 0.75% a nearly complete healing of the skin lesions can be accomplished. The therapy was tolerated well and is continued by the patient to maintain the good skin result.

In the treatment of papulopustular rosacea the combination with a low-dose antibiotic treatment in case of recurrence of the skin lesions can be accomplished. The therapy was tolerated well and is continued by the patient to maintain the good skin result.

Conclusion

Based on the observations made in this case study, it can be concluded that the application of clarithromycin in the treatment of rosacea fulminans during pregnancy is a viable treatment option. The sub-antimicrobial but anti-inflammatory therapy with 250 mg clarithromycin three days per week achieved a reduction of the skin lesions. In combination with a frequently used topical treatment with metronidazole creme 0.75% a nearly complete healing of the skin lesions can be accomplished. The therapy was tolerated well and is continued by the patient to maintain the good skin result.

References

1. Reinholz M, Tietze JK, Kilian K, Schaller M, Schofer H, et al. (2013) Rosacea - S1 guideline. J Dtsch Dermatol Ges 11: 769-780.
2. Augustin M, Herberger K, Hintzen S, Heigel H, Franzke N, et al. (2011) Prevalence of skin lesions and need for treatment in a cohort of 90 880 workers. Br J Dermatol 165: 865-873.
3. Tan J, Schofer H, Aravitskaia E, Audibert F, Kerrouche N, et al. (2016) Prevalence of rosacea in the general population of Germany and Russia - The RISE study. J Eur Acad Dermatol Venereol 40: 328-434.
4. Schaller M, Belge K (2013) Systemic therapy of rosacea. Hautarzt 64: 500-505.
5. Abokwirid M, Feldman SR (2016) Rosacea management. Skin Appendage Disord 2: 26-34.
6. Plewig G, Jansen T, Kligman AM (1992) Pyoderma faciale. A review and report of 20 additional cases: is it rosacea? Arch Dermatol 128: 1611-1617.
7. Ferahbas A, Utas S, Mistik S, Uksal U, Peker D (2006) Rosacea fulminans in pregnancy: case report and review of the literature. Am J Clin Dermatol 7: 141-144.
8. Fuentelsaz V, Ara M, Corredera C, Lezcano V, Juberias P, et al. (2011) Rosacea fulminans in pregnancy: successful treatment with azithromycin. Clin Exp Dermatol 36: 674-676.
9. Haenen CC, Kouwenhoven ST, van Doorn R (2015) Rosacea fulminans in pregnancy. Ned Tijdschr Geneeskd 159: A6334.
10. Jansen T, Plewig G, Kligman AM (1994) Diagnosis and treatment of rosacea fulminans. Dermatology 188: 251-254.
11. Thielitz A, Goldnich H (2011) Rosacea. Systemic therapy with retinoids. Hautarzt 62: 820-827.
12. Prevost N, English JC (2013) Isotretinoin: update on controversial issues. J Pediatr Adolesc Gynecol 26: 290-293.
13. Rennick GJ (2006) Use of systemic glucocorticosteroids in pregnancy: be alert but not alarmed. Australas J Dermatol 47: 34-36.
14. Baldwin HE (2007) Systemic therapy for rosacea. Skin Therapy Lett 12: 1-5.
15. Torresani C, Pavesi A, Manara GC (1997) Clarithromycin versus doxycycline in the treatment of rosacea. Int J Dermatol 36: 942-946.
16. D’Erme AM, Boca A, Sabau M, Milanesi N, Simonacci F, et al. (2016) Successful treatment of rosacea fulminans in a 59-year-old woman with macrolide antibiotics and prednisone. Int J Dermatol 55: e470-472.
17. Stein GE, Havlicek DH (1992) The new macrolide antibiotics. Azithromycin and clarithromycin. Postgrad Med 92: 269-272, 277-282.