Herpes gestationis

Shakeel A. Faiz, *MBBS, MRCOG,* ***Syeda I. Nainar,*** *MD, DGO,* ***Mohammed H. Addar,*** *MD, ABOG.*

ABSTRACT

Herpes gestationis, also known as Pemphigoid gestationis, is a rare autoimmune disease of pregnancy. It is characterized by itching and skin lesions. The disease causes prominently maternal discomfort but fetal and neonatal complications have been reported. There are only scattered reports of cutaneous neonatal herpes gestationis in the literature; however, the frequency and severity of fetal illness are still debated. We describe 2 cases of herpes gestationis diagnosed and managed at the King Khalid University Hospital, Riyadh, Kingdom of Saudi Arabia.

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Herpes gestationis is a rare, intensely pruritic bullous dermatosis that appears during pregnancy or immediately postpartum. The disease is thought to be of immunological origin with an incidence ranging from 1:3000 to 1:50,000 pregnancies.[1] Herpes gestationis may cause severe maternal morbidity, while the frequency and severity of feto-neonatal complications are still debated.[2] The following are descriptions of 2 cases observed in our hospital.

Case Reports. ***Patient one.*** A 33-year-old Saudi lady para 6 with 2 abortions who had the last 3 deliveries by lower segment caesarean section was booked at King Khalid University Hospital, Riyadh, Kingdom of Saudi Arabia at 17 weeks gestation. She had a transvaginal ultrasound (US) for fetal viability at 17 weeks gestation, which showed a single viable fetus of 17 weeks gestation. She had regular follow-up and had another US at 22 weeks gestation to determine any structural anomalies. At 30 weeks gestation she suddenly developed itching, redness and fluid filled eruptions on her right upper arm and body. Initially the lesions appeared erythematous, as shown in **Figure 1**, then papular and urticarial with subsequent development of vesicular elements. After admission, a skin biopsy from her right forearm revealed a perivascular lymphohistiocytic infiltrate in the dermis and epidermal microvesicles with focal spongiosis. Direct immunofluorescence demonstrated heavy linear C3 and deposits but immunoglobulin M (IgM), IgA, IgG and fibrinogen were negative. Oral prednisolone 40 mg/day and local steroid ointments were administered. The patient did not respond to this treatment and was having repeated flare-ups. In view of her deteriorating condition, intravenous Ig 4 gms/day was administered for 3 days to which she responded very well and was discharged on 40 mg/day of Prednisolone. She attended antenatal and dermatology clinics regularly but unfortunately at 35 weeks gestation, she had still birth. She noticed less fetal movements at home but did not come to the hospital. Next day the fetus did not move at all thus she came to obstetric accident and emergency. The patient had a cardiotocogram, which showed no cardiac activity and was admitted. The labor was induced with Prostaglandin E_2. She delivered a baby girl weighing 2.950 kg. The baby had no dysmorphic features and no congenital

From the Department of Obstetrics and Gynecology, King Khalid University Hospital, Riyadh, *Kingdom of Saudi Arabia*.

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Address correspondence and reprint request to: Dr. Shakeel A. Faiz, Consultant Obstetrician Gynecologist, Department of Obstetrics and Gynecology (36), King Khalid University Hospital, PO Box 7805, Riyadh 11472, *Kingdom of Saudi Arabia*. Tel. +966 (1) 4670011. Fax. +966 (1) 4679557. E-mail: shakeel@ksu.edu.sa

Figure 1 - Erythematosus rashes all over abdomen.

abnormalities. Two days later the patient experienced a flare-up of the disease and the dose of Prednisolone was increased to 60 mg/day and Piriton tablets were increased to 4 mg 6 hourly. Intravenous Ig 4 gms daily was given again for 5 days. Patient responded well on this treatment. The mother was discharged after 12 days with low dose of oral steroids.

Patient 2. A 30-year-old Saudi lady para 4 with no abortion was booked at our hospital at 23 weeks gestation. All her initial booking investigations were within normal limits. She had regular follow-up visits in the Consultant Clinic. She had 2 US carried out one at 28 weeks and the other at 33 weeks. These showed a single viable fetus corresponding to her last menstrual period. At 34 weeks gestation, she suddenly developed itching in her back, abdomen and both upper arms. After admission, a skin biopsy revealed perivascular lymphocytic and histiocytic infiltrate. A moderate increase in eosinophils was also seen. There was evidence of epidermal acanthosis, microfocal spongiosis and subepidermal vesicles. Direct immunofluorescence studies for C3 was positive while IgA, IgG, IgM and fibrinogen were negative. Initially, a daily dose of 20 mg of Prednisolone was administered with a transient clinical improvement. After 2 weeks worsening of the disease was noted and the steroid dosage was doubled to 40 mg/day. She responded very well on steroids. At 38 weeks of gestation she came in spontaneous labor and gave birth to a baby girl weighing 2.930 kg. Following the delivery, itching and erythematous lesions became worse and involved the whole of the abdomen and both upper arms as shown in **Figure 2**. The dose of Prednisolone was increased to 60 mg/day and Piriton to 25mg once daily. She was given tepid baths, compresses and emollients. She did not respond to the above treatment. Therefore, we had to give her IV Ig 4 gms/day for 5 days. On this treatment, the lesions started improving and on the ninth day post delivery she was discharged on 25 mg of Prednisolone daily.

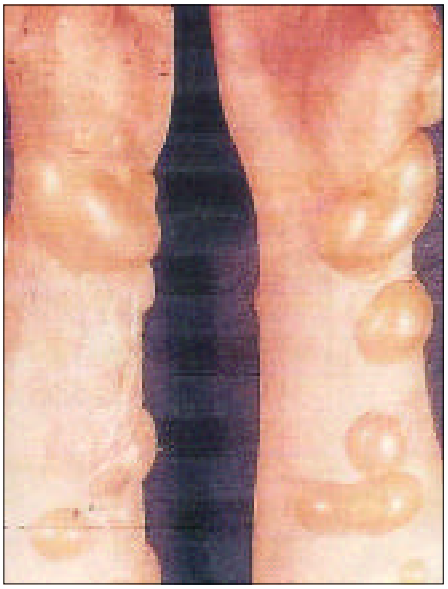

Figure 2 - Large, painful, tense bullae involving both arms.

Discussion. Herpes gestationis presents an intense pruritic urticarial plaques with tense vesicles. It tends to occur during the second or third trimester but may occur any time from the first trimester to the immediate postpartum period. Exacerbation at the time of delivery or postpartum occurs in 75% of the patients.[3] In our patients exacerbation occurred immediately after delivery and we had to increase the dose of steroids. Most patients recover within 3 months after delivery. The disease tends to recur with subsequent pregnancies; however skipped or uninvolved subsequent pregnancies occur in 5% of reported cases.[1,4] Herpes gestationis must be differentiated from other Pruritic skin diseases such as Prurigo gestationis, impetigo herpetiformis and Pruritic urticarial papules and plaques of pregnancy.[5] There is no clear evidence that herpes gestationis poses significant risks to either the mother or the child. A recent study confirmed a slight tendency for prematurity,[2] but in our 2 cases both babies were of average weight and they were not premature. Routine laboratory tests are informative.[6] The histopathology of herpes gestationis is similar to that of bullous pemphigoid. Characteristic findings include tear-shaped, edematous papillae with subepidermal vesicles and dense dermal eosinophilic infiltrates. Direct immunofluorescence of perilesional skin demonstrates linear deposits of C3 at basement membrane.[7] In addition deposition of IgG is found in the same area in 40-50% of reported patients. In the skin biopsy no IgG or IgM was found in either of our patients, but C3 deposits were positive. The cause of herpes gestationis may be related to an abnormal expression of major

histocompatibility complex class II antigens within the placenta that initiate an allogeneic response to the placental basement membrane, which cross react with skin.[8,9] Immunogenetic studies have shown association with HLA-DR3 and HLA-DR4[3,10] and an increase in anti-HLA antibodies in patients with herpes gestationis.[11]

Cutaneous involvement of the neonate occurs in 2-10%. Ten neonatal cases with cutaneous involvement have been previously reported.[12] No cutaneous involvement occurred in our 2 cases and the baby of second case was free from cutaneous involvement and antibodies. Systemic steroids are the mainstay of therapy to relieve pruritus and to suppress the eruptions. Oral Prednisolone, with cautious tapering are generally successful. Topical steroids and antihistamines may suffice for mild cases. We used steroids and antihistamines in our 2 cases but we also administered intravenous immunoglobulins. The results were very encouraging. Neonates should be evaluated for adrenal insufficiency when the affected mother has received Prednisolone for prolonged periods. Counseling regarding subsequent pregnancies is indicated.

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