

## CASE REPORT

# Primigravida With Herpes (Pemphigoid) Gestationis For Caesarian Section: A Case Report

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## ABSTRACT

**Introduction:** Herpes (Pemphigoid) gestationis is a rare autoimmune disease characterized by vesiculobullous lesions over skin seen during pregnancy. Skin Lesions are resolved in post-partum period. Anesthetic management with spinal anesthesia is challenging because of presence of lesions over back.

**Case Report:** We are reporting anaesthetic management of a case of 26 years old parturient having herpes gestationis scheduled for emergency caesarian section. Patient had generalized itchy vesico bullous lesions over abdomen, back, feet, hand and arms. Her airway examination was normal. She was taking oral antihistaminics and steroids. We successfully managed the patient by giving general anaesthesia for caesarian section. Post-delivery lesions persisted for 4 months and then gradually resolved.

**Conclusion:** Anaesthetic management can safely be done by general anaesthesia in a case of Herpes (Pemphigoid) Gestationis if skin lesions are present over back.

**Key words:** Herpes Gestationis, Pemphigoid Gestationis, Vesiculobullous lesion.

**How to cite this article:** Geeta Ahalawat, Manju Bala, Kirti Kamal, Deepak Singh, Savita Saini. Primigravida With Herpes (Pemphigoid) Gestationis For Caesarian Section: A Case Report. *Int J Cont Med Res.* 2015;2(1):116-118

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**Source of Support:** Nil

**Conflict of Interest:** None

## INTRODUCTION

Herpes (pemphigoid) gestationis is a rare autoimmune mediated skin disease characterized by subepidermal blistering.<sup>1</sup> Herpes gestationis (HG), also known as pemphigoid gestationis or gestational pemphigoid, was first identified in 1872 by John Milton. The term herpes is used because of the frequent presence of grouped or herpetiform lesions. Herpes gestationis is characterized by intensely pruritic rashes seen mostly in 2<sup>nd</sup> or 3<sup>rd</sup> trimester of pregnancy. Its estimated incidence is 1 in 50000 pregnancies.<sup>1-3</sup> Herpes gestationis shows a strong genetic linkage to HLA-DR3 and DR4. Some studies have shown that 61–80% of HG patients express DR3, 52–53% express DR4, and 43–50% express both MHC II genes.<sup>4</sup> It usually affects multiparous women in late pregnancy, but it may begin early in pregnancy or within a few weeks postpartum. No specific drug or anaesthesia technique is indicated for anaesthetic management of these patients. Blistering lesions of skin restricts the use of spinal anaesthesia. We present one such case managed by general anaesthesia for caesarian section.

## CASE REPORT

A 26 year old primigravida with 38 weeks amenorrhea was scheduled to undergo emergency caesarian section (Figure – 1). She had history of itching all over the body with rashes since one month. She also had low grade fever and ear discharge since past two days. The patient had been taking oral steroids (prednisolone) for past one month and tab chlorpheniramine maleate for 10 days. On examination there were generalized vesico bullous lesions over abdomen, back, feet, hand and arms. She also had bilateral foot edema.

She had malampatti grade II and had normal temporomandibular joint movements. All routine blood investigations were normal.

In view of intrauterine growth retardation, decreased fetal movements and negative non stress test, patient was scheduled to undergo emergency caesarian section. General anaesthesia was planned and patient was shifted to operation table. Monitors for ECG, SpO<sub>2</sub> and non invasive blood pressure (NIBP) attached gently. Preoperative vitals recorded and intravenous (iv) line started with 18 G iv canula. Inj glycopyrolate 0.2 mg was given as premedication. Preoxygenation done for 3 min and patient was induced with Inj. thiopentone 250mg iv. Gauze pieces were placed over face for proper mask ventilation. Inj succinyl choline 100mg iv was given after assessing adequacy of mask ventilation. Gentle laryngoscopy was done and patient intubated with cuffed endotracheal tube of internal diameter 7 mm in first attempt. After checking bilateral air entry, tube was fixed and connected to Bain circuit. Anaesthesia was maintained with 0.5% Halothane, 33% O<sub>2</sub> with 66% N<sub>2</sub>O and Inj. vecuronium bromide as required. Inj hydrocortisone and Inj dexamethasone were also given.



**Figure-1:** Photograph showing lesions over the abdomen and lower limbs.

Inj. morphine 4.5 mg iv stat and Inj. oxytocin 5 units iv stat and 15 units in drip were given after delivery of baby. Intra operative period was uneventful. At the end of surgery, neuromuscular blockade was reversed with inj neostigmine and Inj. Glycopyrrolate. Patient was smoothly

extubated. Postoperatively patient was observed for one hour in recovery room then shifted to ward. Antibiotics, antihistaminics and steroids were continued in post operative period. Patient came for regular follow up. The lesion persisted for 4 months post delivery and then started to resolve.

## DISCUSSION

Herpes (pemphigoid) gestationis is a rare autoimmune sub epidermal blistering disease of pregnancy and puerperium.<sup>3</sup> It is probably caused by IgG antibody directed against a 180 KD antigen known as BPAG2 found in the basement membrane of both epidermis and dermis. BPAG2 is within the hemidesmosome, the cell component that sticks the epidermal keratinocytes cells to dermis.<sup>7-9</sup>

The antibody attack results in inflammation and separation of the epidermis from the dermis allowing fluid to build up and create a blister. It can occur in any trimester but usually starts in 2<sup>nd</sup> or 3<sup>rd</sup> trimester. Initially lesions are itchy red hives or bumps around the belly button. Within days to weeks these hives and bumps join to form bizarre shaped circular patches and spread to other parts mainly trunk, back, buttocks and arms. Face, scalp, palm, soles and mucous membranes are usually not affected. After 2 to 4 weeks large tense fluid filled blisters are formed in some patients.<sup>1,2</sup>

In most patients symptoms resolve spontaneously after delivery. It may flare up around delivery, during menstruation and by use of oral contraceptive. Risk of recurrence in future pregnancy is there. Lesion is diagnosed by biopsy taken from the edge of blisters. Biopsy shows typical feature of superepidermal blistering. Confirmation is done by direct immunofluorescence staining of biopsy to reveal antibodies.<sup>2</sup>

Treatment is done by 0.1% Triamcinolone acetamide cream, topical corticosteroids, oral prednisolone, antihistaminics and antibiotics. Treatment is to be tapered when symptoms resolve. Complications are rare but there is risk of Graves's disease and premature delivery in these cases. Secondary infection may leave scarring.<sup>1</sup> Guidelines for the anaesthesia management of

bullous pemphigoid patients include special attention to possible airway difficulties due to bullae in the oropharynx and the risk of inducing bulla formation by laryngoscopy.<sup>5</sup> Awareness about potential side effects and interactions of the drugs used for the treatment of BP is indicated. Perioperative corticosteroids therapy should be continued. No specific anaesthetic drug or technique is indicated. There is controversy about the use of regional anaesthesia in patients with bullous skin diseases but local infiltration and regional anaesthesia should be avoided because of the risk of blistering at the injection site.<sup>5</sup> However uncomplicated spinal anaesthesia has been reported in these patients.<sup>6,8,10</sup> Spinal anaesthesia is not an absolute contraindication as it is not having an infective pathology but blistering over the site of injection restricts the use of spinal anaesthesia. Our patient also had blistering lesions all over her back hence we preferred general anaesthesia. During general anaesthesia, to minimize airway trauma, the face mask, laryngoscopes, and endotracheal tubes should be well lubricated.

## CONCLUSION

To conclude, there is no contraindication to any specific drug or technique in anaesthetic management of patient with herpes (pemphigoid) gestationis. But if there are generalized blistering lesions over the back then regional anaesthesia should be avoided and general anaesthesia should be preferred. As these blisters may be secondarily infected, this infection might be carried to subarachnoid space during subarachnoid blockade. General anaesthesia also has certain drawbacks like risk of possible development of ulceration, bulla or oedema around glottis in response to tracheal intubation in patients with generalized bullous lesions. Also there is risk of aspiration and difficult intubation during general anaesthesia in parturient scheduled for emergency surgery. So type of anaesthesia should be planned according to individual patient depending upon her history and clinical examination.

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