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CASE REPORT
Severe Burns during Pregnancy – A management challenge?

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ABSTRACT: Burns in pregnancy is not an common problem but it causes serious effects for both mother and the fetus.
We are presenting a case of 40% superficial and deep second degree burns in a second trimester antenatal woman and the management during antenatal period, intrapartum event and postnatal period and the fetal outcome
Introduction: Pregnancy is an important period in a women's life. Pregnant women can get exposed to various hazards unrelated to pregnancy and burns are one of them (1). Mother and foetus are placed at increased risk by burn trauma, which is often associated with a high rate of both foetal and maternal mortality and morbidity(1). Burns during pregnancy creates a severe threat to baby, as well as to the mother. More severely it is associated with social problems, economical problems, illiteracy and poverty which many times complicate its prevention(5).
Pregnancy and burns occurring together are not an uncommon phenomenon with rates highest in the developing world (4).The mother and the fetus are at great risk of fluid loss, hypoxaemia and sepsis.There is a positive relationship between extent of burns, maternal mortality, infant mortality and preterm labour Common cause of death- sepsis. Prompt and aggressive fluid therapy, vigorous antibiotic cover for sepsis, oxygenation and delivery of the foetus should be done (2).

KEY WORDS: Burns, Pregnancy, Fetal outcome, Fluid Therapy

I. CASE REPORT

A 19 year old Primigravida at 31 weeks of gestation came with alleged history of accidental scalds (Kerosene) injury at home and was admitted in Emergency department On examination, Patient was conscious and here vitals were stable, Hydration was fair. On Local examination it was second degree burns involving face, hands, bilateral breasts, abdomen till both thighs. Superficial and Deep scalds were present and the Percentage of burns was 40% (rule of Wallace) of the body surface area. Patient was unable to perceive fetal movements for four hours.

FIGURE 1: Second Degree Burn Involving Face, Hand, Bilateral Breasts, Abdomen and Both Thighs. Percentage of Burns- 40% BSA (Day of Admission)

On Per abdomen examination, the Uterine size corresponding to 30 weeks of gestation was felt. Uterus was not acting, not tense or not tender. Unengaged fetal head in cephalic position was confirmed with ultrasound examination, Fetal heart rate was recorded and biophysical profile was 8/8(Manning's score). On Per speculum, there was no draining or bleeding per vaginum

Patient was shifted to Intensive care unit immediately and started on Intravenous fluid therapy(RL 9000ml first 24 hours) as calculated by Parkland's formula = 4ml * %Body surface area* weight kgs.

Intravenous antibiotics were given.Collagen dressing was done by the plastic surgery team. Patient was on liquid diet and Urine output was maintained at a rate of 1ml/kg/body weight. Serum electrolytes were found to be normal

On second day of admission , patient had difficutly in phonation hence Laryngeal edema was suspected and Injection Dexamethasone 6mg intravenous 12 hourly four doses were given. Daily fetal kick count, Fetal heart rate monitoring was done. Fetal Doppler study was normal. On tenth day, Patient condition improved, hence discharged.

Intrapartum event

(Post scald one month old) Patient came at 35 weeks 4 days with draining Per vaginum

On examination uterus was acting well corresponding to 36 weeks of gestation .Fetal heart sound was documented with cardiotopography. On local examination, Skin burns were healing but raw area was present in most of the lower abdomen, thighs, breasts & face. On Per speculum there was clear liquor draining. Per vaginal examination, Cervix was 75% effaced, cervical os two cms dilated, membranes were absent,Vertex at -1 station, Pelvis was adequate. Patient progressed into spontaneous labour. She delivered a live late preterm girl baby vaginally with birth weight 2.3 Kgs with APGAR score 8/10, 9/10.

Postnatally, Antibiotics and analgesics were given, regular perineal care for left mediolateral episiotomy was given. Plastic surgeon review obtained.

Postnatal day one -Liquid paraffin dressing over residual raw areas left breast was done. Other areas Betadine scrub bath given .Postnatal day four-Patient developed calf muscle pain, she was afebrile. Adequate hydration adviced. Bilateral Doppler lower limbs was normal Breast feeding: Postnatal day four, Patient symptomatically better hence Discharged On Discharge, patient was adviced on Tablet.iron & calcium with good perinal care. Compression garments & Scar massage was given .Patient is now in follow up with plastic surgery team for scar management with collagen dressings.

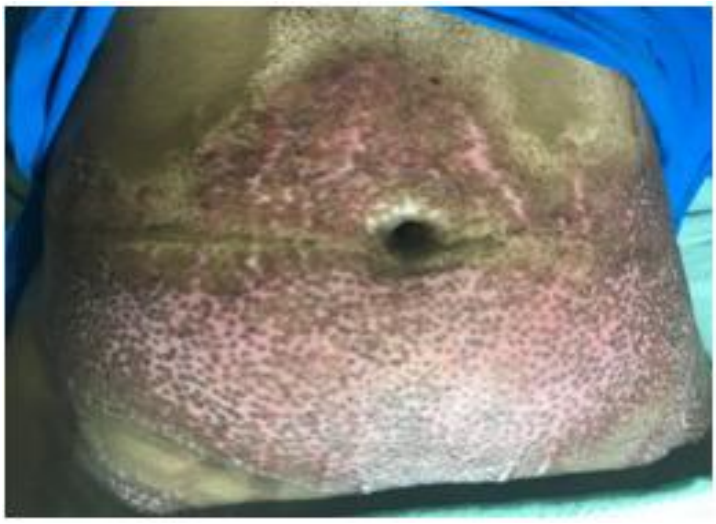

FIGURE 2: Healing burns over abdomen- 14 days after delivery (3 months of collagen dressing)

II. DISCUSSION

According to Napoli B et al, texts in Obstetrics do not deal with burns in pregnancy nor is the topic considered in books devoted to the treatment of burns (3). The patient is best managed in a place where there is a facility for continuous fetal monitoring with high-dependency unit in the obstetrics ward. A multidisciplinary team approach is important in treatment of burns

PREGNANCY LOSS according to burn injury < 20% BSA has no effect on fetal outcome, >30% BSA has increased risk of preterm labour, >40% BSA has high risk of fetal death, if there is >50%BSA lower segment cesaerean section is considered if fetal is viable.

III. RECOMMENDATION

Primary prevention is to avoid cooking or heating with kerosene. First aid measures are prompt cooling with cold water. Secondary preventive measures are to reduce burns severity by instituting prompt first-aid methods.

IV. CONCLUSION

Burns in pregnancy is a more serious condition which can cause both maternal and fetal mortality. Early surgical intervention and a special obstetric protocol are required in the management of these patients.

Consent: We have obtained the patient's consent for the case report

REFERENCES

[1]. Burns During Pregnancy - Effect on Maternal and Foetal Outcomes.journal ofeuro Mediterranean council for burns and fire disord M.Subramanyan 2006 Dec 31; 19(4): SU
[2]. Mokube JA, Verla VS, Mbome VN, Bitang AT. Burns in pregnancy: a case report from Buea Regional Hospital, Cameroon. Pan Afr Med J. 2009;3:21.
[3]. Napoli B, D'Arpa N, Msellis M, Graziano R. Burns in pregnancy. Annals of Burns and Fire Disaster. 2000;13(1):18–25
[4]. Stage HA. Severe burns in the pregnant patients. Obstet Gynecol 1973;42:259-62.
[5]. Shah NA, Patel VJ, Patel CV, et al. Epidemiological study of burn patients with pregnancy. Indian Journal of Burn 2006; 14: 44-6.
[6]. Karimi H, Momeni M, Momeni M, Rahbar H. Burn injuries during pregnancy in Iran. Int J Gynaecol Obstet. 2009;104:132–4.
[7]. Unsür V[1], Oztopçu C, Atalay C, Alpay E, Turhanoglu B.
[8]. Eur J Obstet Gynecol Reprod Biol. 1996 Jan;64(1):55-8.

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