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### RESEARCH ARTICLE

#### BURNS IN PREGNANCY: ABOUT FIVE CASES REPORTS AND A REVIEW OF THE LITERATURE

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#### Abstract

A five-year retrospective study of pregnant women hospitalized at the Mohamed VI hospital in Marrakech was conducted to determine the etiology and outcome of pregnant patients with burns. Five patients were included and were classified according to gestational age, mechanism of burn, burn characteristics, and maternal and fetal outcome. The average age of patients was 33 years. Total body surface area burned averaged (TBSAB) was 27% (15-40%). Out of the five pregnant patients, one was in her second trimester of pregnancy (20%), while the remaining four were in their third trimester (80%). The average duration of hospitalization was 28 days. Infection was the primary complication observed in all five patients, with the risk of premature delivery being the second most common complication. Three of the patients underwent tocolysis to prevent premature labor, while one gave birth to a premature child. On the other hand, no patient presented a thromboembolic complication. Three patients benefited from a relief incision on admission. Three patients were grafted. The other lesions epidermis through direct healing with a tulle fatty dressing and Agiderm if there is a sign of infection (as silver sulfadiazine is prohibited for pregnant women). This protocol is daily repeated in case of infection. The evolution of pregnancy in our series was marked by the occurrence of repeated threat of premature delivery that we managed for four patients who gave birth at term by V/B without incident, except for one who gave birth by C/Sat32 weeks of amenorrhoea.

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#### Introduction:-

Burns during pregnancy can increase the mortality and morbidity of both mother and child, presenting a unique management challenge. In non-developed countries, burns in women of reproductive age occur more frequently than among similarly aged women residing in more developed countries (1) (2) (3). Pregnant women with major burns are at risk of serious complications such as cardiovascular instability, respiratory distress, sepsis, renal and hepatic failure. In this study, we report on five cases of pregnant burn patients treated at the Mohamed VI Hospital in Marrakech.

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**Observation:-****Case1:**

32years;mechanism:scalding;BSS40%.

**Case 2:**

35 years old; mechanism: butane flame; BSS 22%, 2nd superficial to intermediate burn; pregnancy at 33 amenorrhea week;Term delivery of a viable child vaginally



ASPECT OF LESIONS AT ADMISSIONPATIENT ONE MONTH LATER, D5 POST DELIVERY.

**Discussion:-**

Acute burns during pregnancy are considered relatively rare. The medical care approach starts with an initial assessment of TBSAB. Prompt documentation of gestational age is imperative if past pregnancy history is unavailable. The fetus should be monitored with CTG at least every shift for all pregnant burn patients. The

frequency can be adapted based on the clinical situation of both mother and fetus. In case of a gestational age between 27 and 33 weeks, the patient should, However, if the clinical care team decides to defer immediate delivery for mothers with TBSAB > 50% in order to administer fetal lung maturation steroids and possibly accomplish a vaginal delivery, continuous fetal monitoring should be continued for the first 48 hours following the burn. Placement of the pregnant patient in a 15-degree left lateral tilt while supportive measures helps to prevent vena caval compression and may be better with a mechanical wedge (4) (5). Antimicrobial dressings are essential in the treatment of burns.

When compared to some international studies (6) (7) (8), we find that maternal mortality in our study is much less (0%) than in Unsur et al. study (7) (18%) and Maghsoudi et al. study (6)(39.2%). There's not abig variation in total body surface area burn:(27%) in our study ,26% in Unsur et al. (7) and 37.7% in Maghsoudi et al.(6).

Fetal mortality rate in our study (0%) is much less, than the rates reported by Maghsoudi et al. (45%) and Unsur et al. (36%). In the largest series leaded by Mago et al on 90 third-trimester patients with burns greater than 40%, the fetal loss rate was 87% and the maternal death rate was 80% (9). Rezavand and Seyedzadeh, (10) reported a 75% fetal mortality rate for burns &gt; than50% in the third trimester in a study including 21 patients.

The management of the pregnant patient with burns should involve a multidisciplinary team, including a surgeon, an obstetrician or gynecologist, an anesthesiologist or intensivist, and a burn specialist. Based on a limited amount of data from low-level evidence on the management and outcomes of pregnant burn patients, we were able to conclude that maternal and fetal mortality rates vary greatly, depending on TBSAB and the presence of inhalation injury, and may depend on early surgery. Risks are minimal when the TBSAB is less than 10% and significant when the TBSAB exceeds 50%. In between these extremes, maternal and perinatal outcomes depend on the quality of emergent care (11). When half or more of the pregnant woman's body surface has suffered thermal injury, it seems prudent to accelerate delivery efforts. Urgent cesarean delivery can be accomplished in an appropriate hospital for the patient with a potentially viable newborn (12).

### Conclusion:-

One of the drawbacks of this study is the relatively small number of patients, but due to the scarcity of cases seen even globally, the number is acceptable for taking a preliminary result. Because there are no large prospective cohort studies on the outcome of obstetric management of pregnant patients with burns, obstetric management of pregnant burn patients should be cautious. In all cases, measures, precautions and awareness must be increased to protect pregnant women from all kinds of burns, especially thermal burns. Secondary preventive measures to reduce burn severity by instituting prompt first-aid methods could also be taught.

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