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### Case report

# Snake bite in the third trimester of pregnancy: a rare case report and review of literature

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#### ABSTRACT

Worldwide occurrence of snake bite envenomation is rare in pregnancy according to the medical literature particularly in the third trimester. The obstetrical consequences are severe and the severity depends on the degree of envenomation and the time elapsed before starting treatment. We report a case of a Primigravida of 32 weeks gestation who presented with snake bite over the left wrist and developed abruptio placenta despite timely medical intervention.

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### 1. Introduction

Snake bite envenomation is not common during pregnancy. Early gestational age and delay in the treatment suggest an unfavourable prognosis however the prognosis is better in the third trimester of pregnancy as reported in literature. We present such a case, who had a snake bite during the last trimester with unfavourable obstetrical

### 2. Case Report

A Primigravida aged 18 years with 32 weeks of gestation presented with history of snake bite on the left wrist. The patient reported with symptoms of giddiness, dyspnoea, and vomiting, drooping of eye lids.

On physical examination, patient was conscious but restless. She had bilateral ptosis, neck muscle weakness, tachypnoea (respiratory rate-27/minute). Hemodynamically, patient was stable. Per abdomen examination revealed 30-32 weeks uterine size. Fetal heart sounds were heard. Local examination revealed cellulitis involving left wrist.

Upon investigating, the bleeding/clotting time were normal. The complete Hemogram revealed a low

Hemoglobin [8 gm/dl]. The renal function test and the Chest Xray were normal. Since the patient had signs of systemic envenomation, Anti Snake venom was started after giving test dose. About thirty vials of ASV were given within the first 24 hours. The patient also developed hypersensitivity reactions during ASV Administration, for which desensitization with double dilution of ASV supplemented by steroids/antihistaminics was done. The patient was managed in ICU ward for 12 days, and later managed in the step-down wards for 5 days.

On the third day after admission the patient had vaginal spotting and pain abdomen the FHS was not heard. The Obstetrian's opinion was reviewed and abruptio placenta with IUD was confirmed. Induction was started. By the next 18 hours patient delivered a dead foetus. The patient was also put on Tab Gabogoline to suppress lactation. local wound debridement was also done. The patient also received one unit of PRBCs. The postpartum period was uneventful.

### 3. Discussion

Snake bite envenomation is not common in pregnancy. Previous literatures have reported of snake bites in the First and Second Trimesters but very few in the Third Trimester of pregnancy because most of the women are homebound, particularly during their last trimester avoiding exposure to outdoor activities [1].

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Early gestational age and delay in the treatment suggest an unfavourable obstetrical consequence due to a thrombopenic state in the First Trimester and the gradual increase in the Platelet count in the Third Trimester.[1]. The commonest adverse obstetrical events occurring due to snake bite are Vaginal bleeding ,IUD, Premature labour, and Threatened Abortion. The causes for Fetal loss is mainly because of delayed treatment with ASV and several possible mechanisms like-

1. Direct effect of venom on the fetus
2. Fetal hypoxia due to maternal shock
3. Venom induced uterine contractions
4. Placental bleeding due to coagulopathy [2]

Snake venom is a mixture of complex biochemical compounds inducing potentially tocolytic substances that may induce uterine contractions, but their exact role in premature labour and maternal mortality is not known [2]. Zugaib et al reported that the toxin present in the snake venom is a coagulative active agent. This toxin even in small amounts reaches placental circulation at the deciduas placentary cleavage zone and starts its dissociation[3,4].

The scarcity of reported cases of snake bite in pregnancy and in particular during the third Trimester even in International literature has been our main reason of reporting this case .Our patient also experienced Serum sickness following administration of ASV ,initially that was treated with steroids ,which is well known in literature [ 5 -9]. According to a preliminary study by S.Sarkar et al [10] ,the obstetrical events like Abruptio Placenta and vaginal bleeding occurred with increased snake bite severity and delay in the initiation of ASV treatment. In our patient,she did have an increased snake bite severity, but despite receiving ASV within Two hours after bite,she had Abruptio placenta. This indicates that irrespective of the gestational age the adverse obstetrical events may occur because of the above mentioned pathophysiology.

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