



Snake bite in a pregnant woman - a case survived

De-kaa NLP¹, Alao AK², Atabo A², Pitmang SL², Jombo GTA³.

1 Department of Family Medicine, Federal Medical Centre, P.M.B 12245 Makurdi. Benue state, Nigeria..

2 Department of Family Medicine, Jos University Teaching Hospital (JUTH) Comprehensive Health Centre, Zamko. Langtang-North. Plateau State, Nigeria.

3 Department of Medical Microbiology and Parasitology, College of Health Sciences, Benue State University, PMB 102119 Makurdi, Benue State, Nigeria.

ARTICLE HISTORY

Received: 27.06.2012

Accepted: 06.08.2012

Available online: 10.11.2012

Keywords:

Echitab antsnake venom, Echitab study group, Ophitoxaemia, envenomation

*Corresponding author:

Email : niongundekaa@yahoo.com

Tel : +(234)8022369476

ABSTRACT

Reports of venomous snakebites during pregnancy are uncommon. Perhaps the most difficult aspect of dealing with this clinical situation is that care must be rendered simultaneously to two patients with a complex interrelationship. We present a 24 year old woman gravida 4 para 3⁺, who presented at 38 weeks gestation with a 12 hours history of venomous carpet viper bite. She was treated with 40mls of Echitab antsnake (monovalent) venom and delivered a live baby boy with good APGAR score.

INTRODUCTION

Snakes are remarkable animals, successful on land, in the sea, in forests, in grasslands, in lakes, and in deserts.[1] Despite their sinister reputation, snakes are almost always more scared of us than we are of them.[2] So that most snakebites are as a defense against the invading animal. Only about 400 (about 15%) of 3000 snake species worldwide inject venom (a poison).[3] Most snake bites are innocuous and are delivered by non poisonous snakes. Viperidae are the largest family of venomous snakes and are found in Africa, Europe, Asia and the Americas[4]. Though it is difficult to be precise about the number of cases, it is estimated that worldwide incidence of snake bite is in excess of 3 million per year with more than 150,000 deaths with an estimated 10,000 per year in the savanna region of Nigeria.[5] Common among them in Nigeria is the carpet viper which is seen everywhere but highest in the Middle Belt particularly Plateau, Gombe, Bauchi, Northern Enugu, Kwara State, Kogi State, Kaduna and Taraba. Gombe has the highest number followed by Taraba then Plateau.[5] Highest cases of snake bite are recorded during early farming and harvest periods. Cases of snakebite are common among farmers, cattle rearers, during camping activities and others involved in bush activities.[3,5] This patient was a farmer from Plateau state. Snake bite is a common medical emergency worldwide. Much information is available regarding the effect of snake venom on non-pregnant women and treatment protocols. However, little is known about snake bite during pregnancy.[6] Snake envenoming

in pregnancy may cause fetal death and maternal mortality or morbidity. However, little is known about the toxic effects and optimal management of snake envenoming because of the rarity of cases.[6,7]

CASE REPORT

Mrs RB was a 24 year old woman who presented with abdominal pain after a 12 hours history of a carpet viper snake bite on the dorsum of her right foot. The abdominal pain had been on and off, each episode lasting about one minute. There was no vaginal bleeding. She was admitted to the labour room for close monitoring of the maternal and foetal conditions. There was no bleeding from the bite site, no spitting of blood or haematuria. There were no bullae or ecchymosis at the bite site however there was fang marks at the bite site. The 20 minutes whole clotting time was prolonged, so she was given 10mls of Echitab antsnake venom slowly over 20 minutes. There was no reaction to the antivenom. The clotting time became normal an hour afterwards. Her vital signs and fetal heart rate were normal. The vaginal examination revealed a cervical dilatation of 7cm with good effacement, membranes were intact. The clotting time became prolonged again 2 hours afterwards. She was given the antivenom again and the clotting time became normal. She delivered 4 hours after admission to a live male child with good APGAR score (8 and 9 in 1 and 5 minutes respectively). Examination of the placenta revealed retroplacental clots. She had postpartum haemorrhage of 800mls. She was given another 10mls of the antivenom, this was repeated after an hour. She became stable

with normal vital signs. She was discharged 4 days postpartum on 5mg tablets of folic acid and 200mg of fesoate tablets for one month. The packed cell volume was 34%. Her baby was normal and suckling well.

DISCUSSION

Snakebite is not common in pregnant women; however, the obstetric consequences are severe and related to severity of the envenomation.[7] The clinical manifestations depend on the species of the snake responsible as well as dose of injected venom.[8] Local manifestations of carpet viper envenomation include local pain, swelling within 30 minutes and blister within a few hours.⁸ Systemic manifestation include bleeding from old scars, vaginal bleeding, abruptio placenta, uterine contraction and decreased fetal movements,[2,7,8] This patient presented with abdominal pain suggestive of labour pain, she had retroplacental clots and post partum haemorrhage. The specific treatment for snake envenomation is antsnake venom.[8] Species-specific antivenom is the main therapy in the management of snake envenomation.[6,8] This patient received Echitab monovalent antsnake venom which was readily available for patients in this centre and was provided by the Echitab Study Group[9]. Administration of antivenom in pregnant patients is a complex issue because treatment can simultaneously affect the mother and the fetus.[6,7] The issue is further complicated by the fact that little information is currently available regarding the safety of antivenom therapy in pregnant patients. Venom exposure during pregnancy may also cause teratogenesis, foetal growth retardation, or even mutagenesis.[6,7] Antivenom therapy should not be withheld because of pregnancy status unless the risk of anaphylaxis outweighs the benefit of alleviating the symptoms of snake envenoming. This patient did not react to the antivenom even though it was used liberally. Little is known about maternal and foetal outcome following the venomous snakebite of a pregnant woman, and there is no consensus on proper management.[4] Most researchers nevertheless still recommend that antivenom therapy of pregnant patients should be the same as for other patients because antivenom generally poses far less risk than snake envenoming in pregnancy.[6] Studies by Yen Chia et al did not show any foetal complication in all the three trimester of pregnancy even after 6-10 years of follow up in their childhood years.

Snake bite presents with complication like acute renal failure; ophitoxaemia[10]; tetanus and soft tissue abscesses which may lead to meningitis. Although it is understandable that any major maternal complications would likely affect the fetus, it is unclear

whether and how the venom components, if any, may cross the placenta.[6] This patient manifested with ophitoxaemia and had to be given antivenom severally even after achieving coagulability for some hours. This is a phenomenon where venom is stored in blebs at or close to the site of bite such that the venom is released into circulation with mobilization.

Prevention of snake bite include keeping away from snakes, use of flash lights when walking or working in dark places at night, wearing of above ankle boots and wearing of suitable trouser like heavy jeans.[4]

REFERENCES

1. Pantanowitz L, Guidozi F. Management of snake and spider bite in pregnancy. *Obstet Gynecol Surv.* 2006; 51(10):615-20
2. Hanprasertpong J, Hanprasertpong T. Abruptio placentae and fetal death following a Malayan pit viper bite. *J Obstet Gynaecol Res.* 2008; (2):258-61
3. Snake bite. Available on. <http://doc 20.com/disease/snake-bite> (accessed on 20/09/2008)
4. Omogbai EKI, Nworgu ZAM, Imhafidon MA, Ikpeme AA, Ojo DO, Nwako CN. Snake bite in Nigeria. A study of prevalence and treatment in Benin-city. *Tropical journal of pharmaceutical research* 2006;1(1)
5. Mustapha SK. Snakebites in Gombe, Nigeria. *Highland Med Research Journal* 2003;1(4):22-27
6. Yen-Chia C, Min-Hui C, Chen-Chang Y, Yen-Wen C, Lee-Min Y, Chun-I H. *Trimeresurus stejnegeri* envenomation during pregnancy. *Am J Trop Med Hyg.* 2007;77(5): 847-849
7. Sarkar S, Bhattacharya P, Paswan A. Snakebite in pregnancy: preliminary study. *Br J Anaesth.* 2008;101 (1): 128-129. doi: 10.1093/bja/aen157
8. Ogala WN, Obaro SK. Venomous snake bites in children in the tropics: the Zaria Experience. *Nig. Med. Pract.* 1999; 26: 11-3.
9. EchiTab (antsnake venom) Study Group Nigeria Protocol 1998/1999.
10. Turum G. Ophitoxaemia (venomous bites). <http://priory.com/med/ophitoxaemia.htm> (accessed on 16/10/2008)