

CASE REPORT

Application of Anti-snake Venom in a Neonate with Snake bite

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ARTICLE INFO	ABSTRACT
Article history Received 9 June 2016 Accepted 25 July 2016	A 15 days old male neonate was brought to the paediatric department with inconsolable cry, respiratory distress, and complaining of snake bite. There was no clear cut protocol how much AVS is safe in neonatal age group. During the case study the baby was treated with total 20 vial (200ml) anti venom serum (poly valent, Bharat serum and vaccine) each time 5 vial (50ml) over one hour for total 72 hours. Two dose of atropine and neostigemine also given. After three days the baby was improved and after five days it was released from hospital.
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INTRODUCTION

Snake bite is a common medical emergency in Southern Asia, in India, around 200,000 people every year are bitten by snakes, out of which 15,000 are die. Annual incidence of snake bites in India is reported to be 0.16% with a mortality of 0.016% per year (1). Snakebite deaths occurred mostly in rural areas (97%), more common in males (59%) than females (41%), and peaked at ages 15–29 years (25%) and during the monsoon months of June to September (2). There are four species groups of snakes (nearly 300 different species in India) are primarily responsible for what is likely to be the highest death rate from snakebite in any country in the world, the 'Big Four': cobra (four species), krait (eight species), saw scaled viper (two subspecies) and Russell's viper. All are widely distributed throughout most of the country although areas like the far Northeast, the Himalayan region and the Andaman and Nicobar Islands have distinctive snake fauna in India.

The scarcity of reported cases of snake bite in neonate and in particular within the fifteen day after birth even in International literature has been our main reason of reporting this case

CASE REPORT:

A 15 days old male neonate was brought to the paediatric department with inconsolable cry, respiratory distress, and complaining of snake bite (alive Krait snake was brought along with). The baby was examined and two frank bite mark was present on left knee joint. There was no oozing, local oedema, raised temperature or necrosis.

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There was no H/O dark coloured urine, Heart rate was 146/min, respiratory rate was 66/min abdomino-thoracic type. Blood pressure was 84/44mmHg. Capillary refill time was <3 second and WBCt was <10 min. There was mild ptosis and poor sucking. Pupil was normal and reactive.

The baby was immediately put on moist oxygen inhalation with mask. All the investigation along with Prothrombin Time (PT) and activated partial Thromboplastin Time (aPTT) was within normal limit. The baby was treated with total 20 vial (200ml) anti venom serum (poly valent, Bharat serum and vaccine) each time 5 vial (50ml) over one hour for total 72 hours. Two dose of atropine and neostigemine also given. From day-3 baby was improving with normal sucking and was discharge after 5 days without any complications.

DISCUSSION

The venom is a clear transparent pale yellow or straw coloured fluid and is a pure solution of two or more protein materials. It is an acidic bio-reagents and soluble in water and glycerin. The venom is precipitate in reagents like AgNO₃ and KMnO₄. Snake venom act in various types of ways so that it is possible to become immunized to the venom of different species yet death occurs due to delayed or inappropriate treatment. Though most of the snake bite is non venomous (70%)(3) but the venomous bite can cause catastrophe if it's not treated within time and appropriately. AVS should be given as soon as possible.

In the present study we identified the snake as Krait, *Bungarus caeruleus* (Schneider, 1801). Its venom is neurotoxins in nature, induce muscle paralysis. Clinically, its venom contains presynaptic and postsynaptic neurotoxins, which generally affect the nerve endings near the synaptic cleft of the brain.

The sign and symptom of the baby was indicative of ophitoxic. The baby was given AVS within 45 min of snake bite. There was no clear cut protocol how much

Snake bite to a neonate

AVS is safe in neonatal age group and it's adverse effect but we used total 20 vial AVS depends on response of the baby. It's advised to use higher dose of AVS in neonate and early AVS therapy can reduce the total dose and untoward outcome.

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