Suppression of Brainstem Reflexes in Snakebite

We report a 12-year old boy, who was admitted in our hospital with history of snake bite over left side of pinna, while he was sleeping on the floor in the house during night. Child was immediately brought to hospital. He had one episode of vomiting on way to the hospital. On examination, he was drowsy and having insufficient respiratory efforts. The pulse rate was 56/min, BP was 90/60 mm of Hg and SPO₂ was 70% with 3L/min O₂. He had ptosis and sluggish deep tendon reflexes with absent plantar. Child was immediately intubated and kept on ventilator. Polyvalent antisnake venum and neostigmine were started as per the standard protocol on snake bite.

Over a period of about 6 hours, child became areflexic. Pupils were dilated and not reacting to light. Corneal and occulocephalic reflexes were absent. There were no spontaneous respiratory efforts and apnea test was negative. Ventilatory support continued despite finding suggestive of brain stem dysfunction. The child was showing some movements of hands and feet on the next morning. In the evening, spontaneous respiration was present. Child was weaned off from ventilator after 72 hours and discharged after 5 days.

The snakes most commonly associated with mortality in India are cobra (Naja naja), krait (Bungarus caeruleus), Russel’s viper (Vipera russelli) and saw scaled wiper (Echis Carinatus)(1). Although snake bite is a frequently encountered problem in rural and tribal areas, it is infrequently seen in urban Surat. Common neurotoxic snake include cobra and krait. Krait bites are commonly reported during night, and those sleeping on the floor are at greater risk (2).

Venom from neurotoxic snake has a curare like effect by blocking neurotransmission at neuromuscular junction. Cobra venom acts post synaptically while krait venom acts pre synaptically(3).

ASV is most effective when administered within a few hours of krait bite. Ventilator support forms a cornerstone of krait envenomation therapy. Anticholinesterase (neostigmine) had been tested and no benefit was found in reversing paralysis in common krait bite(4).

This case highlights that potential reversible causes of brain death must be excluded before diagnosis of brain death. Electrocerebral silence on EEG for at least 30 minutes and absence of blood flow in 4 vessels cerebral angiography are confirmatory test for brain death(5).

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REFERENCES


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**Misuse of Corticosteroids in Madhya Pradesh**

Misuse of corticosteroids is prevailing in Madhya Pradesh. Steroids are prescribed for quick relief of bronchopneumonia, bronchitis, bronchiolitis, fever, temperature of any cause and, also to make the child chubby. When the parents watch the relief of the child by such medicine, they recommend it to their neighbors and relatives and also publicise the practitioner who has given it. They also start keeping it as a household remedy, without knowing the dose and method of tapering and the long term harms of it on the adrenal and the effect of sudden withdrawal. And while approaching to me or some other practitioners for some other ailment they show the strip/bottle to us very proudly that what magic drug is Betamethasone? Because it is doing magic in wheezing etc. without the consultation of the doctor.

Here in this area of Madhya Pradesh there is no agency to control the dispensing of drugs without prescription. At the same time, cash memos are issued to only one out of thousand customers and that too to the persons who need reimbursement and by the way if some asks for the cash memo he has to wait for hours for it/refused to sell medicine.

I am writing this letter to you with the hope that this will open the watchful eyes of IMA, IAP and Government of MP who in turn will be able to create some strict laws to prohibit unauthorized dispensing of the drugs and also create public awareness of not using drugs without consultation.

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**Misuse of Betamethasone**

I wish to share my experience regarding misuse of corticosteroids in pediatric practice since 1993, when I returned from Gulf and settled in city of Ujjain (MP). It is not surprising to see irrational prescriptions of corticosteroids from qualified pediatricians. Corticosteroids are frequently misused in respiratory infections, acute bronchiolitis and prolonged fever. Prescriptions are also written advising injectable steroids to be mixed with injectable antibiotics on outpatient basis (eg. Inj. amoxicillin with Inj. dexamethasone).

Betamethasone in drop form is available in our country since long time. I personally feel that it is one of the most misused corticosteroid given orally to young infants. I evaluated the consumption of betamethasone drops in Ujjain and Shajapur district in last 3 years. The sale of one of the leading brands “Betnesol drops” manufactured by Glaxo company in last 3 years was 24,200 (2006), 22138 (2007) and