Poster Abstracts of Diamond APICON 2005

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Poisoning

259. Anti Snake Venom : Dose and Side Effect

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In order to determine dose and side effect of anti snake venom (ASV), 250 patients (50 females, 200 males) with snake venom poisoning (20 with cobra, 80 with viper, 120 with common krait bite and 30 with early morning ptosis) were studied. Age ranged from 16 to 65 years, but 70% were in the age group of 25-40 years. They were admitted, the time was more than 12 hours and all had features of systemic manifestations. Patients with early morning ptosis were hospitalised with the chief complaints of ptosis and dysphagia while getting up from the bed in the morning without definite history of snake bite. All were treated with five vials (50 ml) of ASV (supplied by hospital) at the outset. The dose of ASV was repeated at intervals of 6 to 12 hours (as many patients did not afford money quickly as per the clinical assessment for repetition of the dose as recommended by text books). When ptosis and dysphagia were improved and blood was coagulated, ASV was no more administered. The amount of ASV required for cure of the patients was 50 ml to 250 ml (in 70% it was about 100ml). Neurotoxic signs usually disappeared within 24 hours of bite and coagulation of blood was normalised within 48 hours of viper bite and within 24 hours of Cobra bite. Out of 250 patients, 20 patients died (the dose of ASV was 50 ml in 19 cases and not repeated as they did not afford, inspite of all other supportive measures). Urticaria was observed only in two patients and anaphylactic reaction was not found in a single case.

Present study shows that ASV may not be needed after 24 hours in neurotoxic and after 48 hours in vasculotoxic snake venom poisoning. The dose of ASV should be repeated in order to save life and it may be after six hours. Skin test may not be necessary as anaphylaxis was rare.

*260. Neurotoxic Snake Bite Management - Experience of 3 Years in a Rural Teaching Hospital

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Background and Objectives : Every year 15,000-20,000 people die from snake bite in India, the great majority being in rural West Bengal. This is a prospective study of three years in a rural Medical College in Bankura district of West Bengal. We took special interest in Neurotoxic snake bite management because Neurotoxic effects are completely reversible if treated early with AVS combined with anticholinesterases (antiChE) according to Tensilon test result. The problem of short supply of AVS can also be overcome to some extent by these schedules. Earlier the admission and initiation of treatment, better the survival rate.

Material and Methods : Three hundred and seventy three snake bite patients were admitted between 1st June’ 01 and 31st May’ 04 in BS Medical College, Bankura. Vasculotoxic and nephrotoxic features were present in 303 (54.4%) patients, neurotoxic effects were present in 47 (12.6%) cases; rest 123 (32.97%) patients were non-poisonous snake bite or no envenomation. Among 47 patients, 21 were male and rest were female with age ranging from 15 to 61 years 10 (21.2%) patients were directly admitted with median admission time 3.75 hrs. 25 (53.19%) patients were referred from various health centres - some of them received initial treatment including AVS with median admission time 8.25 hrs. 12 (25.53%) patients were initially treated by quacks and Ojhas and were received late with median admission time 17.25 hrs. All these patients were regrouped according to Tensilon test. Gr-1 had 17 patients and were Tensilon test negative and Gr-2 had 30 patients and were Tensilon Test positive. Gr. 1 patients were treated with high doses of AVS (200 ml stat and 100 ml 6 hrly) with atropine and neostigmine 6 hourly Gr-2 patients were treated with low doses of AVS (100 ml stat and 50 ml 6 hrly) with high doses of edrophonium/neostigmine (1 amp 1/2 hrly for 2 hrs, 1 hrly for 4 hrs, 2 hrly for 4-8 hr and then continued 6 hrly) with prior adequate doses of atropine. Both schedules continued until symptoms completely disappeared and patients were out of danger. In this study neostigmine was used more as we had free Government supply.

Result : Gr-1, 10 (58.82%) patients survived. Five patients died of which three were in late admission group. Two patients were referred for mechanical ventilation, they too were in late admission group. They also died Gr-2, 27 (90%) patients survived, three patients who were also in late admission group died. One patient referred for ventilatory support survived. All patients directly admitted survived.

Discussion : Most common neurotoxic snake in our part of the country is cobra and its allied species. Their toxin causes postsynaptic blockage. Patients with type of snake bite were tension positive and were treated low dose of AVS and high dose of anti ChE. Other neurotoxic snake like Krait mainly causes presynaptic blockage. Patients with this type of snake bite were tension test negative and were treated with high doses of AVS and low doses of antiChE. AntiChE were of less value in this group.

Indian cobra Cobra toxin post synaptic block
Common krait Beta bungarotixin pre synaptic block

Conclusion : Tensilon test should be performed in all cases of neurotoxic envenomation. Patients should be treated according to Tensilon test result. The problem of short supply of AVS can also be overcome to some extent by these schedules. Earlier the admission and initiation of treatment, better the survival rate.

264. Clinical Profile of Copper Sulphate Poisoning

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Aims : To study the clinical profile of Copper sulphate poisoning in a tertiary referral centre.

Material and Methods : A retrospective analysis of data with copper sulphate poisoning was conducted from medical records between 1991 and 2003. All paediatric cases and all concomitant poisoning with other substances were excluded.

Results : Twenty three of total 35 cases of copper sulphate poisoning were females. The mean age was 29 years. The
predominant complaints were vomiting, burning epigastric pain and diarrhea. At presentation 36% had pallor and icterus and 17% and haemoglobinuria in 29%. The mean copper estimated was 104.53 µg/dl and the mean metHb level was 9.6%. D-Penicillamine was administered in 66% and the mean dose was 1.12 g/d and for 5.6 days. In 8.6% BAL was given. 31% required haemodialysis, while 14% ventilatory support. Twenty seven patients survived and the mortality rate was 20%. The average stay in the hospital was 8.3 days.

Conclusion : Copper sulphate poisoning is associated with multiple organ dysfunctions and may be fatal.

*Adjudged Best Papers and got an award of Rs. 1000/- each from Chairman Scientific Committee, Diamond APICON 2005.