A Study of Snake Bite Cases

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Snakes are cold blooded animals, found in most parts of the world. About 2400 species arc known but only 200 are poisonous. Many places are entirely free of poisonous snakes[1]. In Pakistan about 70% of the population resides in rural areas where snake bite is a common problem. Mostly farmers while working barefoot in the lands are bitten at night[2]. There are three families of medically important venomous snakes: Elapidae, Viperidae and Hydmphidae. These snakes have fangs in front of their mouth through which they inject venom from the parotid gland. Atleast 50% of people bitten by snakes suffer from few or no toxic effect as little or no venom is injected[3].

Patients, Methods and Results

Case records of patients admitted during 1990 with history of snake bite at Taluka Hospital Mithi, District Tharparkar, Sindh, were reviewed and analysed to determine age, sex, hospital stay, time since bite, partbitten, presentation, management, morbidity and mortality. Blood clotting time was the only laboratory test available to confirm systemic envenomation[4]. Lee white clotting time check method was used to determine the cloning time. Each blood sample was kept in two different bottles(2 ml in each). One bottle was checked every 5 minutes till the blood cloned and the other every 15 minutes for one hour by putting a stick in the bottle or tilting the bottle.This procedure was perfonned at room temperature. If clotting did not occur within 15 minutes, it was considered deranged and Anti-snake-venom was given. Twenty age and sex matched volunteers were used as controls and blood sample of each of them clotted within 15 minutes by using this method. 0.1 ml anti-snake venom was mixed with 5 ml blood from the patient and was injected slow intravenously as a test dose. If no adverse reaction was seen, Anti-snake venom was injected in full dose over 20 minutes by slow intravenous injection. Any adverse reaction to anti snake venom was managed with adrenaline, anti histamine and corticosteroids. Of 1337 admissions during the year, 332(25%) were due to snake bite. Highest frequency (7 1%) of snake bite was reported during summers (June-Sept.). Most (63%) patients were males whose ages ranged from 15-44 years. Over 99% cases received non-specific or no treatment at all prior to coming to the hospital. Only 23% patients reached hospital early while 77% arrived later than desired. Major presenting symptoms were local swelling (70%), pain (53%) fang marks (30. 7%) and bleeding (17%). Initially 50% patients were treated with Anti-snake venom while another 6% were given the Anti-snake venom during observation period, the rest were treated symptomatically. Avenge dose of Anti-snake venom was 28.2 mls (range 20-40 mls), 10% developed adverse reaction. Blood Coagulation was restored to its normal range over a mean of 35.7 his. Mortality was 1.1% while 20% left hospital against medical advise. Average hospital stay was 3.2 days.

Comments

All cases in the present study were bitten by Viper Echis carinates commonly known as “Lundi Balla” in Thar district. The poisonous effect was due to haemotoxin. A high frequency of snake bite during summers and in adults in the present study is similar to that reported by others[5]. Though many patients were aware of the efficacy of Anti-snake venom and early hospitalization but majority arrived late due to non-availability of transport in their area. The frequency of bleeding in the present study was similar

to that of others[6] ,and blood transfusions were given to few cases only. Though the magnitude of the problem in our country is high because it is an agricultural country with poor resources but a drop in the frequency of snake bite can be achieved by advising farmers to use alampatnight and not to walk barefoot in the fields. Measures should be adopted for early transportation of the cases to the nearest hospital where ample supply of Anti snake venom or its alternative should be made available; atleast during summer when the frequency of snake bite is on its peak.

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