

Snake Bite Case Treated without Antivenom

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Abstract

Snake venom contains complex enzymes and toxic proteins. The severity of snake bite cases may vary between local findings and mortality. They are chiefly treated with antivenom, necessitating timely intervention in the correct dose. However, antivenom may not be available in all settings, which makes it necessary to plan treatments for symptoms that may arise in patients. This study presents a rare case of snake bite treated in the absence of antivenom.

Keywords: Snake bite, Symptomatic treatment, Absence of antivenom

1. INTRODUCTION

Snake bite cases are environmental emergencies frequently seen especially in hot areas. Snake bite cases are very common in southeastern anatolia region in our country. The most common species is viperidae (grizzly snake). In our country, antivenom is produced by Ministry of Health depending on Venom content. Antivenom is recommended for use in cases of progressive symptoms such as shock, spontaneous bleeding and rapid progressive edema. In the absence of antivenom, symptomatic treatment is planned according to the symptoms and stages of the patients. In this article, we aimed to present a rare case in the literature that could not be antivenom.

2. CASE REPORT

69-year-old female patient was brought to the emergency department with the unknown insect bite. The patient's general condition was good and cooperative. On physical examination, 4 snake teeth were found on the back of the right leg (Figure 1). Other physical examination findings normal who patient was diagnosed of snake bite. Localized snake bite area was marked for edema follow-up and leg diameter was measured. The patient was accepted as

stage 0 with his present findings. The change in the patient's blood tests is summarized in Table 1. The leg was poised motionless position. Plaster splint was practiced to the patient. On the second day edema and ecchymosis developed on the dorsal aspect of the foot (Figure 2-3). Tetanus prophylaxis was started. The patient with anemia and thrombocytopenia was given one unit of erythrocyte suspension and fresh frozen plasma. Anti-edema treatment was started at a dose of 3x1 daily from 1 cc / kg mannitol. The patient was followed for seven days. The patient was discharged with a plaster splint to be checked one week later. When the patient came to the control, edema and ecchymosis were decreased (Figure 4). Patient's laboratory tests were normal (Table 1).



Figure1. Snake Tooth Traces (Day 1)

Table1. Laboratory test

	White Blood Cell (4 – 10) 10 ³ /μL	Hemoglobin (11 – 15) gr/dl	Thrombocyte (100 – 300) 10 ³ /μL	PT (11 – 16) Sn	INR (0,8-1,2)
Day 1	9.9	11.9	55	17.7	1.36
Day 2	8.27	8.4	104	15	1.14
Day 7	7.6	9.0	156	14	1.12
Day 14	6.5	9.7	279	13	1.10



Figure2. Edema and ecchymosis on the foot after snake bite (Day 2)



Figure3. Edema and ecchymosis delivered to the proximal limb after snake bite (Day 3-4)



Figure4. After symptomatic treatment and control (Day 14)

within 48-72 hours (1). All systems can be affected according to the type of poison (2).The most common findings in snake bites are tooth marks, edema and ecchymosis(3).Snake bite cases are divided into stages for patient follow-up and treatment. Stage 0 (snake bite wound), stage 1 (bite site edema, ecchymosis), stage 2 (no signs of shock, but coagulation tests are abnormal), stage 3 (ecchymosis in all extremities, shock findings, thrombocytopenia, abnormal coagulation tests and bleeding findings) is evaluated as (4). The patient was in stage 0 when he was brought to the emergency department and progressed to stage 2 during follow-up.

The main treatment in snake bites is done with antivenom produced according to venom type. In our country, European Viper Antiserum (10 ml intramuscular or intravenous ampoule) is used as snake antivenom. Antivenom is provided by Directorates of Ministry of Health. Each 1 ml of those antivenoms includes 100 mg of horse immunoglobulin. This antivenom treatment is recommended in patients with signs of stage 2-3, shock, neurotoxicity and bleeding (1-5). Although antivenom was required for our patient, antivenom could not be given due to the absence of it in our hospital and other institutions.

Treatments without antivenom are reported in different ways in the literature. Tetanus prophylaxis, fluid therapy, fresh frozen plasma and immobilization are among the treatment options in the absence of antivenom (6-7). Other treatments include observation of patients, steroid and antibiotic therapy (8). We monitored extremity edema, ecchymosis and leg diameter during observation as symptomatic treatment. The extremity was kept at the heart level. The extremity was immobilized with a plaster splint. Tetanus prophylaxis was started. In addition to anti-edema treatment, erythrocyte suspension and fresh frozen plasma were give.

3. DISCUSSION

Snake venom contains proteolytic enzymes and neurotoxins and some substances that affect the clotting mechanisms. As a result of snake bites are seen usually pain, edema, bleeding and ecchymosis in one hour. Edema can increase

4. CONCLUSION

As a result, antivenom treatment should be given to the appropriate patient in a timely, adequate dose in to regulate hematological parameters. However, in the absence of

antivenom, treatment options for symptoms should be initiated immediately. And in this way possible complications should be prevented.

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