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SCORPION STING IN A PREGNANT WOMEN: A CASE REPORT OF THREE PATIENTS

GEBE KADINLARDA AKREP SOKMASI:. ÜÇ HASTANIN OLGU SUNUMU

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ABSTRACT

Scorpion envenomation can be mortal by causing organ damage. Especially in pregnant patients it can be life threatening for fetus.

The aim of this study is to analyse the tree pregnant patients with scorpion sting who were treated in our intensive care unit retrospectively and to compare the clinical, laboratory outcomes, treatment methods and to discuss the treatment principals in this kind of envenomations. During the following-up these patients there were no need to send an another tertiary centre. It is realised that the treatment is effective for the scorpion envenomation in Adıyaman region.

Key Words: scorpion sting, scorpion antivenom, pregnancy.

ÖZET

Akrep sokması organ hasarına yol açarak mortal seyredebilir. Özellikle gebe hastalarda fetüs için hayatı tehdit edici olabilir.

Bu çalışmanın amacı, akrep zehirlenmesi nedeni ile yoğun bakım ünitemizde yatarak tedavi gören 3 gebe hastayı geriye dönük incelemek ve hastalarımızın yattığı süre boyunca yapılan takiplerindeki klinik, laboratuar ve tedavi yöntemlerini karşılaştırarak bu tür zehirlenmelerdeki tedavi prensiplerini tartışmaktır. Takip edilen hastalarda ileri merkeze sevk gerektirecek bir durumla karşılaşılmadı. Yapılan tedavinin Adıyaman ili bölgesinde olan akrep sokmalarına karşı etkili olduğu görüldü.

Anahtar Kelimeler: akrep sokması, akrep serumu, gebe.

INTRODUCTION

Scorpions, are arthropods which carry chitin layer on them. Toxic effects of scorpions have been identified many years ago (1). Scorpionism often has seen in Southeast Anatolia. Androctonus crasiscauda and Anatolia Leiurusquinquestriatus species are more found in Southeast (2). Neurotoxins, agglutinins, lökositoliz, coagulants, lecithin and cholesterol are found in scorpion venom (3).

Scorpion stings can cause simple clinical symptoms such as: tingling, hyperemia, localized edema, increased salivation, itching, pain or can cause life threatening clinical symptoms such as heart failure or arrhythmia, hypertension, tachycardia, hyperglycemia, dyspnea, ARDS, pulmonary edema, myocarditis, intracerebral hemorrhage, encephalopathy, disseminated intravascular coagulation (1,2).

The aim of this study is; to analyse the tree pregnant patients with scorpion sting who were treated in our intensive care unit.

In conclusion scorpion envenomation can be mortal. Especially in pregnant patients it can be life threatening for a fetus. It can be treated by following the possible complications and taking adequate precautions scorpion envenomation in intensive care unit and it requires an immediate treatment.

CASE REPORT

This study was performed in the intensive care unit of the Kahta State Hospital. The patients were monitored in the intensive care. These patients were consulted from Obstetrics and Gynecology and ultrasound and fetal monitoring were done. Clinical data were obtained from medical records of the hospital (Table 1).

Patients had no significant change in test results. Treatment, clinical symptoms, vital signs, complications, results of pregnancy, hospital stay day and the period until the hospital after scorpion sting were recorded (Table 2).

The patients underwent ice bag cooling on the sting area, and was administered 1 gramme of IV paracetamol. During clinical follow-up of patients did not change significantly. None of these patients was not applied to scorpion serum. The evaluation from an Obstetrics and Gynecology clinician's and the patients were discharged.

Table 1: These patients were clinical data

	Patient 1	Patient 2	Patient 3
Parameter	Intensive care unit admission/discharge	Intensive care unit admission/discharge	Intensive care unit admission/discharge
Hemoglobin	11,2/11,3	11/11,1	11,5/10
Leukocyte	12,9/11,8	12,4/18,2	8,3/8,8
Platelet	296/276	343/388	222/184
Myoglobin	41,2/44,5	65,3/32,1	26,6/35,2
creatine kinase MB	1,1/1,7		1/1
Glukoz	123/79	92/121	98/86
Blood Urea Nitrogen (BUN)	11/8	13/15	12/10
creatinine	0,46/0,51	1/1,1	0,55/0,44
Aspartate transaminase (Ast)	29/25	32/28	31/11
Alanine transaminase (Alt)	16/14	25/24	13/10
Sodium (Na)	137/139/	138/141	142/143
Potassium (K)	4/3,8	3,7/3,5	5/3,9
International Normalized Ratio (INR)	1,1/1,1	0,9/-	1/1,1

Table 2: Treatment, clinical symptoms, vital signs, complications, results of pregnancy, hospital stay day and the period until the hospital after scorpion sting were recorded.

	Patient 1	Patient 2	Patient 3
Age	28	31	21
Gestational age(week)	29	24	29
Sting site	Left arm	Right arm	Right arm
Complaint	Eritem local pain	Local pain	Eritem local pain
The severity of the phase	1	1	1
Vital sign	Normal	Normal	Normal
Admisson time after sting (hour)	3	0,5	1
Ultrasound	The baby was compatible with 29 weeks, amniotic fluid index was normal, and there was not any apparent placental problem.	The baby was compatible with 24 weeks, amniotic fluid index was normal, and there was not any apparent plascental problem.	The baby was compatible with 29 weeks, amniotic fluid index was normal, and there was not any apparent placental problem.
Fetal monitoring	No contractions were recorded and fetal monitoring was normal	No contractions normal	No contractions normal
Treatment	Supportive	Supportive	Supportive
Hospital stay day	2	3	2
Results of pregnancy	Vaginal birth	Caesarean section (old caesarean section)	Vaginal birth
Birth age (week)	38	40	39
Baby	3200 gr female	3200 gr male	3800 gr male
Child	4 age healthy	5 age healthy	3 age healthy

DISCUSSION

Scorpion venoms neurotoxins can affect the excitability of sodium channel inactivation or Y toxins in the canal, J3 wx to cause activation of the toxins. This repetitive impact causes the spontaneous nerve stimulation. Adrenergic and cholinergic nerve endings cause the release of adrenaline and acetylcholine. Adrenaline releases from the adrenal medulla (4).

Little known is about yellow scorpion stings resulting in early abortions in pregnant patients. There is a few study in the literature.

There is a case report in literature that the patient has fetal death following a yellow scorpion sting. Venoms may act uterine muscle directly or may act indirectly by causing the release of or potentiating the effect of bradykinins on uterine muscle (5).

Mortality rate of untreated baby is 20 % of mortality rate in all age groups. Scorpion venomization during pregnancy is most commonly studied on pregnant rats. On the other hand, only case reports have been reported on pregnant women. The results of these studies have shown that scorpion stings are associated with miscarriage, preterm birth, and placental abruption. Limited available literature suggests that adverse outcomes are primarily related to venom effects on the mother. In the literature, some types of scorpion venoms were tested on the isolated rat uterus and its effects were obtained. An amount of venom caused a contraction of the uterus. The teratogenicity of the venom on fetus is unknown. The teratogenic effect of the venom appears to be the results of its metabolic effect and action on body electrolytes of the maternal animal, rather than to a direct effect on the fetuses. On the other hand, the several studies in the animals observed that some types of scorpion venoms cause a high fetal resorption rate (especially during the 9-11 gestational age), vertebral and ossification defects, and fetal weight loss (6).

In our cases the main complaint/symptom was localised pain; there was no systemic symptom. Severe scorpion envenomation during pregnancy may affect both the mother and fetus. Antivenoms may be used in the treatment of the envenomed pregnant women; however, antivenoms can cause allergic reactions such as shock or anaphylaxis that may have an adverse effect on both the mother and the fetüs. The symptomatic treatment is important and should be reminded. Pain can be attenuated by usual analgesics (paracetamol) as well as local cooling of the sting site by any means available (water, ice, cooling agents). In most of the cases, this treatment will be sufficient for an adult (7).

Kurtoğlu clinical argues antivenom be given in the presence of at least two toxic symptoms (8). Antivenom administration IM 1 cc should be done. IV antivenom on the implementation of measures should be applied up may be the cause anaphylactic reactions under appropriate conditions.

In conclusions; scorpion envenomation is an important clinical entity. It can be fatal especially in pregnant patients. By following the possible complications and taking adequate precautions scorpion envenomation should be treated immediately. We wanted to underline this special issue by the help of the literature.

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