

Scorpion Sting in Fezzan Area

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Introduction:

Scorpions are nocturnal predators that sting quickly and repeatedly; when disturbed in their hiding places under rocks, lumbers and vegetables or in shoes, bedding, or clothing left on ground.¹

Probably the five most dangerous scorpions to man are: Centruroides (southern US, central America) Tityus (south America) Androctonus (Africa) Leiurus (Africa, middle east) and Bothus (Asia).²

The scorpions inflict fatal stings, and it is known that the arid regions that extend from north Africa to India are inhabited by the most abundant and dangerous scorpions.¹

A review in the literature mentioned no published data about scorpion sting in Fezzan province, except a single survey in 1979,² and a trail of eradication program carried out by D. C. Robertson (CIBA-GEIGY Ltd) on Nov. 9/1980,³ and it was of limited and not lasted long.

The purpose of this study is only to shed a light on the magnitude of the health hazards caused by scorpions stings to the community.

Materials and methods:

This is a retrospective study for a period of 7 months (June – December 1998). In pediatric ward of 2nd March Teaching Hospital in Sebha.

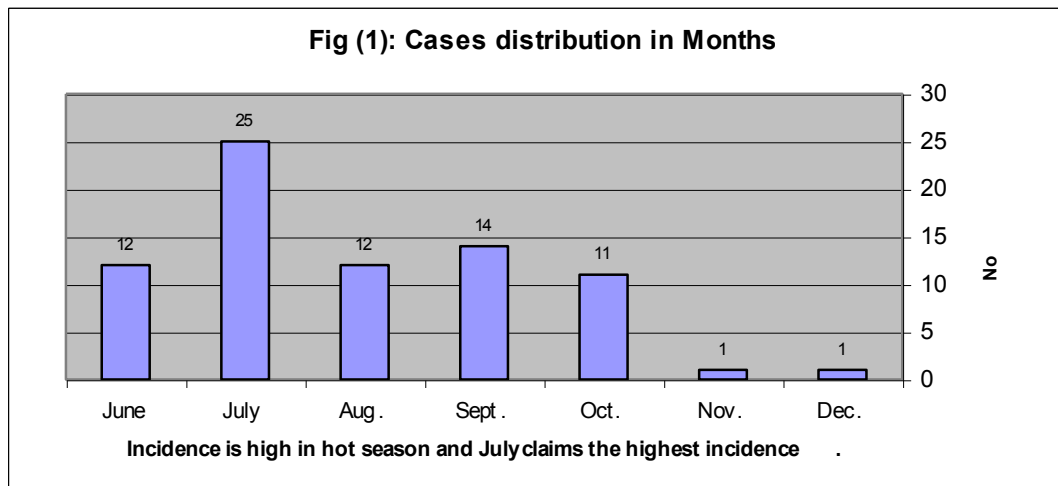
The data was collected directly from the hospital records for all patients of scorpions admitted in the pediatric ward. We have only given consideration the age, the sex, the site of sting and the residence, morbidity and mortality. Other important parameters have been neglected due to problems related with the recordings.

Table (1): Age and sex distribution

Age	No.	%	Sex					
			Male	%	Female	%	Total	%
<2yrs	13	17.0	50	65.8	26	34.2	76	100
2-4yrs	8	10.5						
4-6yrs	14	18.4						
7-12yrs	41	53.9						
Total	73	100						

1) 6 patients left against medical advise.

2) Those who are less than 2 years they are 17% of the total but in death wise they are >60% as shown in table (3).



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Table (2): According to residence.

Place	No.	%
Sebha	58	76.3
Shati	13	17.0
Ubari	5	6.7

Table (3): Age, residence and mortality distribution.

Age		Residence	Death	%
<2yrs	17mon.	Sebha	1	66.6%
	20mon.	Ubari	1	
	4yrs	Shati	1	
			3	4.5%

- 1) All deaths are those who are at the age of 4years or less.
- 2) 66.6% of the died are less than 2 years.

Table (4): Survival rate.

Survived	Died	LAMA	Total
67(87.7%)	3(4.5%)	6(7.8%)	76(100%)

- 1) High rate of death (4.5%).
- 2) High rate of LAM 7.8%, to quake doctors or Fiqi (traditional medicine).

Results:

Total cases of scorpion stings were 76 patients, males outnumbered 50(60.8%), the female 26(34.2%) as shown in table (1).

According to table (2), the highest case incidence are those who are inhabitants of Sebha (58(76.3%), followed by those who are residents in Shati 13(17%), because it is the nearest district to (Shabiya) Sebha. Also in table (2) it is clear that those who are less than 2 years are 17% of the total cases.

Table (3), shows those are less than 4 years claim the highest death toll.

Table (4), shows high rate of death 4(4.5%) and LAMA 6(7.8%).

Fig (1), reveals high incidence of cases in hot season and July claims the highest peak incidence.

Discussion:

The clinical features depend mainly on the amount of venom injected relative to the weight of the victim. Sebha, the capital city of Fezzan province is suitable for *leirus quinquestriatus*,³ which is one of the dangerous scorpions. Most of the dangerous scorpions are desert or semi-desert species.²

In this study, the mortality was 4.1% which is higher than a survey done in south of Libya in 1979, there were 900 stings per (100,000) population and seven deaths per (100,000).² While in Algeria there were an average of 1260 stings and 24 deaths per year.⁵

The death toll was higher among the children who are less than 4 years of age, in which 66.6% were

in between 17 months – 20 months of age. In Algeria 50% of the mortality are less than 4 years.⁵ In age-wise it is similar to somehow the study done here in 1979.

So it is clear that we cannot evaluate easily the potential years of life lost in the death of early age. The highest incident was the age group of 4 years 53.9%. The young children have no experience and they don't understand the dangerous of scorpion. Usually they play continuously in dark corners in abandoned buildings, especially at late evenings when the weather is hot. And scorpions are more active as the temperature rises i.e during hot summer nights.³

The virulence of scorpion toxin is more in summer and breeding time.⁴ And it is evident in this that the highest case incident was in the hot months June – October, the highest peak incident was in July 25 pts (32.8%) out of 76 cases.

In this study the male : female ratio was 2:1 (50:26). This properance is because males are more active and carefree than females. We think the mortality is far more than this figure, this is only the iceberg of the problem, because many patients don't reach to the health facilities, including this hospital, especially those who live in suburbs and far areas, where transportation is not so easy. Also a good number of patients don't go to the healthy facilities either due to the existing of health barriers, or for other reasons while some prefer to

seek help from traditional healers and Faki. So no body knows the really morbidity and mortality rate related with scorpion stings in this region. And this small study cannot show us the true picture of the reality of the healthy risks posed by the scorpion stings, especially to the young age group.

It is an alarming signal, so in our point of view it is much better to do further studies, in order to dig

out the extent of this health problem in this region.

It is clear that scorpion sting claimed the life of many children who are not aware of this danger.

Finally, it is hoped that this study will stimulate further researches which will give comprehensive picture of the problem.

References:

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