

Snake Bites in Sulaimani – Iraq

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Abstract

A study of the characteristics of snake bites in Sulaimani Governorate was undertaken during April 1997 to October 1997. It is found that all signs of envenomation were seen and the most affected age groups by snake bites were between 11-20 years. Snakebite were more frequent among male than female farmers. More common in temperate areas. Most features were necrotising and vasculotoxic than myotoxic. No significant differences found between the seven months which were involved in the study, neither between the four affected sites of the body according to numbers of the cases.

Keywords :- Snake bites in Sulaimani ,future planning for producing specific ant venom.

Introduction

The world contain about 2700 different species of snakes majorities are non-venomous and harmless, only 10% of them said to be venomous [1,2]. In one study around 20% of snake bites showed no sign of envenomation [3] Dry bite occurred in 12% of bitten person [4]. The poisonous snakes, however, widely distributed throughout the world and are found in every types of terrain except sub arctic, arctic and high altitudes [5]. With the exception of king Cobra, the Mambas and a few south American species, the poisonous snakes do not generally attack man spontaneously, but only in defense or trodden upon by human being or animals specially dogs [6,7]. The classification of poisonous snakes is quite complex, but for medical purposes most of them fall in to; Elapidae, Hydrapidae and Vipiradae, which are myotoxic, vasculotoxic, neurotoxic and tissue necrotizing nearly respectively [8]. Deaths from snake bites are rare in Britain, and only 2 deaths were recorded in England and Wales in 19 years [9]. In France and Italy combined there are about 20 deaths per year [10]. It is an important cause of death among rice farmers in Philippines; only 8% of snake bitten persons reach hospital [11]. Focal haemorrhage with microvascular fibrin deposition [12], paralysis, rhabdomyolysis and haemolysis contribute to fatal envenomations [13]. Several factors affect the severity of snake bites and the incidence of their complications specially amputation and these include: length of the snake; longer than 60 centimeters, and the bitten sites being on the fingers [14]. A new enzyme immunoassay suitable for field uses can be applied as snake venom detection kit in suspected cases for detection of snake

venom in blood and urine. This study is a prospective study of the different features of 135 cases of snake venomous bites

admitted to the Surgical Department of Sulaimani Teaching Hospital during the period from April –1997–October 1997.

Materials and Methods

During the period from April 1997 to October 1997, 135 snake bite patients were admitted to Sulaimani Surgical Department. All showed signs of envenomation, both local and systemic. Management had been done as follows; full history was taken in each case, thorough examination were done, needed laboratory tests were sent, blood was taken and sent for blood grouping and cross matching, monitoring of vital signs "blood pressure, pulse rate, temperature" and measuring urine out put, intravenous fluid therapy started for all patients. Appropriate management was done including dressing, fasciotomy, skin grafting, secondary suturing and no antivenom given because were not available. The significance of difference among patients number of various groups were tested by Chi-square method.

Results

The results and characteristics of 135 snake bitten patients were as follows:

1-Table [1] indicate that most of the affected individuals were in the second, third and fourth decade of their life and the Chi-square test reveals significant differences between age

Chi-square test of sex groups in the table.1 reveals significant difference [$P > 0.01$] A significant Chi-square of contingency [$P > 0.01$] indicate relationship between age and sex of the patients [i.e : the numbers in age groups differ for the two sexes]

Table. 1 Distribution of the patients by age and sex

Age : years	Male	Femal e	Total
2 – 10	9	3	12
11 – 20	24	22	46
21 – 30	20	10	30
31 – 40	18	4	22
41 – 50	8	6	14
51 – 80	11	0	11
Total	90	45	135

2 – Most of the patients were from the areas nearby the city center, Saidaadiq, Sharbajer and Karadagh [Table 2].

Table.2 Distribution of the patients by area

Place	Numbers
Sulaimani center & around	30
Said sadiq	25
Sharbajer	16
Qaradagh	13
Arbat	8
Darbandekhan	8
Dukan	6
Chamchamal	5
Barzenja	5
Kalar	4
Penjween	4
Akhjalar	3
Halabja	3
Bazian	2
Kifri	1
Raniah	1
Qalladiza	1
Total	135

3 – Snake bites started from April continued through May , June , July ,August ,September and only one case reported in October [Table . 3]

Table.3 Shows monthly distribution of the patients

Months	Male	Femal e	Total
Apirl	9	7	16
May	26	7	33
June	17	5	22
July	11	8	19
August	12	9	21
Sept&O ctob	15	9	26
Total	90	45	135

4 – Although the figures shows that the most common site affected was right lower limb followed by left lower limb and right upper limb [Table. 4] Chi-square test revealed a non_-significant difference between them

Table.4. Sites of the body affected by snake bites

Site Of Bites	Numbers
Right lower limb	46
Left lower limb	36
Right upper limb	27
left upper limb	26
Total	135

Discussion

From table No.1 it is apperant that the most age group affected by snake bites were those between the ages of 11 – 20 years, male farmers were most frequent among them, since active outdoor work starts at these. These results, as it seems, are comparable with results of similar studies done in other countries, e.g. in Brazil most snake bitten persons were males whose ages range from 10 to 19 years [3] In South America most of them are males [16] In Papua, New Guinea most of them were also males with median age of 24 years [17] In Natal the most affected age were < 14 years [18]

In Brazil most affected age group were between 10 to 18 years [19] and in Brazil 74% of the victims were males [20]

Table No.2 shows living areas of the victims at the time of being bitten .It shows that most victims were from temperate areas rather than from cold and very high mountainous areas as snakes are very active in the temperate areas . This is comparable with studies in south America where most bites occurred in hot temperate areas [19] Others reported that most bites occurred on the hottest months of the year and in hot areas [21]

Table No.3 shows monthly distribution of snakebites. Months included are not different in the number of the patients as indicated by a non-significant Chi- square test. Also a non-significant Chi-square test of contingency indicate that the months have no association with sex in their effects. Assuming that number of snake bites is null during the period from November to March a significant differences presented between this period and the rest of the year which it indicate that snake bites occur only in the hot time of the year. The present results disagree with the results of other studies which conclude that bites were less in April than in May or August [22], [23] and [24] and with those results from Brazil which shows that bites were more frequent in April [3]

and in March or July [25],[26],[27]

Table No.4 shows the sites of the bites. ~ A non-significant difference between the various sites of the body was revealed the Chi-square test.

Conclusion

This study shows the characteristics and special features of snake bites in sulaimani Kurdistan area which reveals that:

1-Venomous snakebites were the majority and those dry bites are rare.

2-Most bites involve young adult and teenage males.

3- Most of the bites occurred in the hot areas of the region and rare in the coldest high mountainous regions of the area.

4- Snake bites occurred during the seven months which included in the study and no significant differences revealed

between these months according to the numbers of the bites that occurred during each month separately.

5- Bites occurred in the all four limbs with no significant differences between the numbers of the bites involving each site.

6- Most features are necrotizing and vasculotoxic and less myoneurotoxic .

7- The mortality rate is 2.2% which is higher than the international rates of 1% .

Recommendation

It is necessary to produce local antivenom prepared from local snakes as the features of our local snake bites are different from other areas of the world and internationally exported antivenom may not work here properly .

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References

- [1] John Macleod. Davidson principles and practice of medicine. Churchill Livingston, 12th Edition, London, 2000; 528.
- [2] H.. Alistair Reid. Venomous bites and stings in Mid Africa and Middle East, Post graduate doctor, 1980; 3:234-9.
- [3] T.H. Spata. Non venomous snakebites with out envenomation in Brazil. Rev. Inst. Med. Trop. Sao Paulo 1992; 34:499-503.
- [4] Derezende NA, Tores FM, Dias MB. South America Rattle snake with out envenomation, Toxicon 1998; 36:2029-32.
- [5] Russeli FE. Snake venom poisoning, Philadelphia, JB Lipincott, 1974.
- [6] SK. Sutherland. Management of venomous bites and stings, medicine international 1984; 2:391-6.
- [7] Aroch. I, Harras S. Retrospective study of epidemiological, clinical, hematological and biochemical finding in 109 dogs poisoned by Vipera Xanthana Palestinae. Vet. Res. 1999; 144: 532-5.
- [8] SK. Sutherland. Management of venomous bites, Med. Inter. 1984; 2:3916.
- [9] Minton SA. Venomous snake bites diseases, Springfield, USA, 1980.
- [10] Pozio E. Venomous snake bites in Italy, Trop Med. Parasitol. 1988; 39: 62-66.
- [11] Wall G, Padre L, Turzon ML. Bites by Phillipine Cobra: an important cause of death among rice farmers, Toxicon 1989; 35:33-43.
- [12] Than Than, Francis N, Tin NU Swe. Contribution of focal hemorrhage and microvascular fibrin deposition in fatal envenomation by Russels Viper [RVS] in Burma, Acta Tropica 1989; 46:23-38.
- [13] Phillips RE, Theankston RD, Warsell DA. Paralysis, rhabdomyolysis caused by RVS in Srilanka, QJ Mmed. 1998; 688:691-715.
- [14] Jorge MT, Riebero LA, Oconnel JC. Prognostic factors for amputation in the case of envenomation by snakes, Ann. Trop. Med. And Parasitol. 1999; 93:401-8.
- [15] Chandler HM, Hurrall JG. A new enzyme immunoassay suitable for field use and its application in a snake venom detection kits, Clin. Chirin. Acta 1982; 121:225-8.
- [16] Jorge MT, Ribero LA. The epidemiological and clinical picture of an accidental bite by South America Rattle snake, Rev. Inst. Trop. Med. Sao Paulo 1992; 34:347-54.
- [17] Rain EL. An epidemiological study of snakebite in Papua New Guinea Mmed. J. Aust. 1991; 154:2666-8.
- [18] Tilbury CR, Branch WR. Observations on the of the Southern burrowing asp in natal, S. Afr. Med. J. 1989; 75:327-31.
- [19] Trans RR. South American snakebite in Brazil: 87 cases, Sco. Trop. Med Hyg. 1992; 86:562-31.
- [20] Riberio LA, Pnorto G., Gorge MT. Bites by the Corubid snake, Toxicon 1999; 37:943-8.
- [21] Hansdak SG, Lallar KS, Pokharel P. A clinicoepidemiological study of snake bite in Nepal, Trop. Doctine 1998; 78:223-6.
- [22] Nnishiokas de A. Siviera PV. A clinicoepidemiological study of 292 cases of lance headed viper bite in Brazil, Trop. Hyg. 1998; 23:123-7.
- [23] Haviv J, Huerta M, Shpilberg O. Poisonous animals: bites in Israeli defence forces, Puplic Hlth. Rev. 1998; 26:237-45.
- [24] Ai Harbi N. Epidemiological and clinical differences of snake bites among children and adult in SW S. Arabia, Toxicon 1998; 27:45-9.
- [25] Iifshiz M, Kaplushnik Jjj, BEN harosh M. DIC after Ceraster Vipera envenomation in 3 years old child, Toxicon 2000; 38:1559933-8.
- [26] Cowin DJ, Wright t, Cowin JA. Long term complication of snakebites, JJ. South Orthoped. Assoc. 1998; 7:205-11.
- [27] Ribeiro LA, Jorge MT. Bites by snake in genus space Bothrops: 3139 cases, Rev. Soc. Braz. Med. Trop. 1997; 30:4475-80.

لىكۆلىنەۋەى مارانگازى ئە سلېمانى

تايەر ھەورامى

كۆلىچى پىزىشكى / زانكۆى سلېمانى / ھەرىقى كوردستانى - ھىراق

ئەم لىكۆلىنەۋەى دەرى خستوۋە كە ھەموو مارانگازەكان نىشانەى ژەھراۋى بوونىان بېۋە دەرگە وتوۋە و تەمەنى زۇرەيان نېر و ئە جووتيارەكان بوون و دائىشتوۋى ئەو ئاۋچانە بوون كە كەشېكى مام ئاۋەندىيان ھەىە ئەۋەك ئاۋچە زۇر ساردەكان ، ھەروھە نىشانەكان ئە ئە نجامى تووش بوونى شانە ئاۋەكى يەكان بوۋە ئەۋەك ماسوونكەۋە مەرەكان ، ۋە جىاۋازىيەكى زۇر نىيە ئە نىوان ئەۋە مانگانەدا كە لىكۆلىنەۋەكى تىيا ئە نجام دراۋە ، ھەروھە ئە نىوان شوينى گازەكان ئە ئاۋچە جىاۋازەكانى ئەش بە كۆيرەى ژمارەى كەيسەكان .

دراسة لىذمة الاطاعى فى السلىمانية

طاهر هورامى

كلية الطب/جامعة السلىمانية/اقلیم كوردستان - العراق

بېنت ھدە الدرەسە ان كل المندوغم اقرهوا علامت التسمم و ان اعمار اقلبيتهم كانت تتراوح بين ۱۱ و ۲۰ سنه و معظمهم من الذكور و الفلاحين و فى منأق معتدله الجو و ليست منأق شديده البروده و ان العراج كانت نتيجة اصابه النسجه الرخوه و الوعیه الدمويه و ليست العجلات و العصاب ولا يوجد اختلاف كبير بين الشهور التى أوجريت خلالها الدرەسە و لا بين منأق الجسم المصابه بالنسبه الى عدد الحالات اللدغ .