EPIDEMIOLOGY OF ANIMAL BITES IN REGION OF ILAM, IRAN

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ABSTRACT

Objective: The obtained information of Zoonotic disease caused to advantages in prognosis and treatment of this disease but also this group of disease caused to affect many of people and animals. Meantime, the disease of Animal Bites known as main hygienic complicated in the world. Aim of this study is study of prevalence of animal bites in Ilam city.

Methods: Since this study is a analytical, descriptive study, so all of the dependent data with animal bites in 2013 in Ilam was collected and after classification, analyses them with SPSS software version 16.

Results: Present study indicated that prevalence of animal bites in 2011 in Ilam was 598 (107 case in 100000 person) 484 person of them was male (80.4%) and 114 person of them was female (19.6%). Also maximum and minimum number of animal bites respectively was in Shirvan chardavol (24.75%) town and Malekshahi town (2%).

Conclusion: The obtained result indicated that animal bites by dogs was common animal bites in Ilam city (84.78%) and majority of animal bites occurred in rural regions that this result has accordance with other study in all of the world. majority of animal bites occurred by the animal that have mistress thus, training the persons that have domestic animals, about hygienic and vaccination of animals can effective on prevention of outbreak of disease of animal bites.

Keywords: Epidemiology, Animal Bites, Ilam, Iran.

INTRODUCTION

Today, the data is obtained on zoonotic diseases, which has made vast progress in the diagnosis and treatment of these diseases. Yet this group of diseases leads to a large number of animal and human infection. In between bites of animal is a disease as a public health problem in the world That despite vast improvements in the prevention and treatment have been achieved, but this annual event is shown a growing trend [1, 2]. Statistics show that each year 3 to 6 million animal bites occur only in America that Almost, dog bites contains the main common bites in mammals [3-5]. In Iran between years 1992 to 2003 annual averages of 8.4 people have lost their lives due to rabies infection [6]. About two million annually bite wounds caused by mammal animal bites in human occurs in the world and also, ten million people are treated for animal bites [7]. Wound infection can be occurring by any pathogen, including bacteria, viruses, and fungi may spirochetes [8]. Dog bites, in addition Bacterial Infections can transfer rabies, tetanus and tularemia and cat bites may cause to tetanus and rabies also can transfer Bartonella-Heneselae, Fransicella tularensis [9]. Ilam city is in west of Iran and prevalence of animals biting is low in this city [10]. As the knowledge of people about danger of animal biting and referring for treatment and prevention in recent years is increasing thus analyzing of this data can increase knowledge about prevalence and epidemiology of animal bite and better planning for prevention of animal biting or reduce the diseases that transfer by animal biting. This study aim to evaluate of prevalence of animal bite in Ilam city in Iran.

METHODS

This research is a descriptive study that study of epidemiology of animals biting in Ilam city. For this purpose all of data about animal biting were collected. All of characterizes about biting person such as sex, region of living, animal, type of treatment analyzed by software SPSS 19.

RESULTS

In 2013 years, prevalence of animal biting 598 cases was reported that 114 of them was female and other was male (p<0.05). Also 421 case was in rural region and 177 case was in urban region (p<0.05). Highest prevalence of animal biting was in Shirvan city (148 cases) and lowest prevalence was in Malekshahi city (12 cases) (Figure 1). 99.5% of the them were treated that 176 of them were in urban region and 420 cases were in rural region. Also about type of treatment, 129 patients completed the treatment regimen and 467 patients received partial treatment regimen (Figure 2). In this study Dog biting had the most prevalence of animal biting and also biting by wolf had lowest prevalence (Table 1).

Table 1: Frequency of animal biting in different animals.

<table>
<thead>
<tr>
<th>Invasive animal</th>
<th>Frequency</th>
<th>Relative frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dog</td>
<td>507</td>
<td>84.78</td>
</tr>
<tr>
<td>Cat</td>
<td>65</td>
<td>10.87</td>
</tr>
<tr>
<td>Other pet</td>
<td>7</td>
<td>1.17</td>
</tr>
<tr>
<td>Fox</td>
<td>2</td>
<td>0.33</td>
</tr>
<tr>
<td>Wolf</td>
<td>1</td>
<td>0.17</td>
</tr>
<tr>
<td>Other wild animal</td>
<td>16</td>
<td>2.68</td>
</tr>
<tr>
<td>Total</td>
<td>598</td>
<td>100</td>
</tr>
</tbody>
</table>

DISCUSSION

Ilam province with numerous species of wildlife and ecological diversity is crucial about animal bites and disease transmitted through the bite wound. This study indicated that most animal bite was about dogs (84.78 %) and then Cat (10.87). Eslamifar et al indicated that most prevalence of animal bite in Tehran city is for Dog (65.9%) and then Cat (25.4%) that this result is corresponded with our study [11]. Also waref et al indicated that most biting animal is Dog and Cat that Clos, tokoyama and celic indicated similar result that all of them was corresponded with our study [12-
One study in Puerto Rico study shown that prevalence of animal bite in male and female was similar that this result Does not match with our research [13].

Fig. 2: Treatment regimen in Animal Bites

Result indicated that 99.5% of people received medication regime that shown the Affordable health care coverage in this city. On study in Indian indicated that 78.9 % of people received medication regime that this is not match with our study [16]. But in Amiri research in shahrood city, all of people received the vaccination [17]. The data suggest that up to 1986 the number of cases of animal bites have increased but decreased over a period of three years and its increasing trend has begun again that maybe caused of no killing of stray animals such as dogs or failure to observe keeping safety tips on pets. One study in Yazd city on 416 animal biting cases indicated that 98.6 % received the Rabies vaccine and also that the used treatment regimen is incomplete regime [14].

In other word this study had shown that most animal biting occurred for male and in rural region, so education in the villages about use of appropriate clothing when contact with animals could be useful. Most of biting occurred by pet animals thus educating about hygienic of animals and on time vaccination can be useful for prevention of transfer disease.

CONCLUSION

The obtained result indicated that the majority of animal biting occurred in rural region and most of them occurred by pet animals, thus Recommended that the necessary training be given to the people who keep pets and in areas with a high incidence of animal biting equipment and facilities of after exposure to animal bites are available.

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