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Epidemiological Profile of Animal Bite Cases Attending Tertiary Care Hospital of Ahmedabad. Gujarat

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ABSTRACT

Rabies is a zoonosis and vaccination soon after the bite enables infected person to survive, which is otherwise cent percent fatal. It is important to know about epidemiology of animal bites as well as factors influencing post exposure treatment for preventing human deaths due to rabies. Findings will help in formulating the rabies control strategies. Therefore, a study of the animal bites from an epidemiological point of view was undertaken.

KEYWORDS : Epidemiology, Animal bite cases, Tertiary care hospital

INTRODUCTION

With the expectation of some areas in the South pacific , rabies persists as a major Public Health hazard in many countries across the world.[1] It is estimated that the South East Asia Region accounts for approximately 60% of human deaths due to rabies in the world.[2] In India, it is estimated that 20,000 deaths occur due to rabies annually.[3] Data available from 14 developing countries of Africa, Asia, South and Central America report a dog/inhabitant ratio of between 150/1,00,000 to 200/1,00,000.[4] In India 3,50,000 persons receive Post-exposure prophylaxis. Stray dogs are mainly responsible for 99% of human infection.[4-8]

AIMS AND OBJECTIVES: To study the epidemiological profile of animal bite cases

MATERIALS AND METHODS:

All the cases of animal bites receiving Post-Exposure Treatment (PET) in the Out-Patients of New Civil Hospital, Ahmedabad from January 2013 to August 2013 were registered. Socio-demographic data was collected in the predesigned and pretested proforma from each case and relevant information about the biting animal and category of bite were also collected. Medical record section of Civil Hospital contacted to know the trend of disease. All the bites were classified as per the recommendation of W.H.O. [1,2]

RESULTS:

Table 1: Month wise distribution of cases

Months (2013)	Total Cases	Percentage
January	1389	19.1
February	1156	15.9
March	1057	14.5
April	914	12.6
May	750	10.3
June	688	9.5
July	713	9.8
August	611	8.4
Total	7278	100.0

Total 7278 cases of animal bite have attended the anti rabies clinic in the period of January 2013 to August 2013. Number of cases are relatively more in the month of January (19.1%), February (15.9), March (14.5%) as compared to June (9.5%), July (9.8%), August (8.4%).(Table 1)

Table 2: Age and Gender wise distribution of Cases

Age group	Number	Percentage
<5	192	2.6
5.-14	1643	22.6
15-24	1684	23.1
25-34	1040	14.3
35-44	1212	16.7
45-54	780	10.7
55-64	421	5.8
>65	306	4.2
Gender		
Male	5613	77.1
Female	1665	22.9
Total	7278	100

Age wise distribution of cases showed that more number of cases was recorded in the age group 5-14 yrs (22.6%) and 15-24 yrs (23.1%). Extremes of ages were relatively less commonly affected. Sex wise distribution showed that males were more prone to animal bite (77.1%) whereas females (22.9%). (Table 2)

Table 3: Type of biting animal

Type of animal	Number	Percentage
Stray Dog	7257	99.7
Monkey	6	0.1
Camel	5	0.1
Cat	3	0.0
Donkey	7	0.1

Most of the cases were having history of dog bite (99.7%). only few of the cases were having bite of Monkey, Camel and Donkey (0.1% each). (Table 3)

Table 4: Category of bite

Category of bite	Number	Percentage
Category I	1801	24.75
Category II	1548	21.27
Category III	3929	53.98

Most of the animal bite cases were of category III (53.98%). 24.7% and 21.2 % were of category I and II, respectively.(Table 4)

DISCUSSION:

In this study, children and adult were affected the most probably because of their outdoor activities. Similar findings were present in other studies too done by Sudarshan.[10-12] Females were significantly less common victim of animal bite as compared to males. The most common biting animal was stray dog. The same finding was noticed

uniformly in other studies too. [10-13]Category III was present in 53.9% of bite victims. This finding is similar to that of study carried out by Ghosh (62%)[14] and Ichhpujani et al (62.6%). [15]

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