

Cultural practices among patients visiting ARV OPD of Government Medical College, Latur

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Abstract

Background: Rabies is a fatal disease. Although a number of carnivorous and bat species serve as natural reservoir, dog is a source of 97 % of human infection. Globally about 61000 death occur annually due to rabies out of which 16450 (27 %) occur in India. In India wide variety of cultural practices are being practiced by the people following animal bite which determine their treatment seeking behaviour and prognosis of the wound. **Objective:** 1) To study epidemiological profile of animal bite cases visiting ARV OPD of Government Medical College, Latur. 2) To study cultural practices practiced by the same animal bite cases before visiting to ARV OPD. 3) To give recommendations based on the findings. **Methodology:** A cross-sectional study was conducted in ARV OPD of Government Medical College, Latur. Study was conducted for a period of 1 month from 1st of Sep 2019 to 30 of Sep 2019. All the new animal bite cases that is 184 cases visiting to ARV OPD were enrolled in the study. Data was collected using predesigned and pre-tested questionnaire. Data was entered in MS- Excel and analyzed. **Results:** Majority of the animal bite cases were hindu (161) by religion and were from joint family (113). Out of total animal bite cases 48.40 % of cases were educated above higher secondary. 151 cases of 184 were of Dog bite, 32 were of cat bite and 1 was of pig bite case, Out of 188 animal bite cases, 88 (46.80 %) were of Cat III, 98 (52.12 %) were of Cat II and 2 (1.06 %) were of Cat I. Various cultural practices were practiced by 118 animal bite cases out of total 188 animal bite cases before visiting to ARV OPD. A significant difference was found between education level of animal bite cases and pre-treatment practices. **Conclusion:** The study reveals more than half of animal bite cases were practicing various cultural pre-treatment practices which are of no use and sometimes harmful. Awareness is needed through proper health education measures for appropriate health seeking behaviour and management of animal bite.

Key Words: Animal bite, Cultural Practices.

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INTRODUCTION

Rabies is a fatal disease. 10th biggest cause of death due to infectious disease is rabies¹. The causative agent belongs to genus *Lyssavirus* of the family *Rhabdoviridae*.² Rabies is present in all continents except Antarctica and more than 95 % of death are reported from

Asia and Africa.³ Globally 61000 death occur annually due to rabies, of which 16,450 (27 %) are reported from India.⁴ In India rabies is reported from all states except Lakshadweep and Andaman Nicobar Islands.⁵ The incidence of animal bite in India is 17.4 per 1000 population and about 1 person is bitten every 2 sec.⁶ About 2.74 rabies cases / 10,000 population annually is the fair estimate of rabies burden in India. 1 Of all the cases about 97 % of rabies are due to bite from rabid dogs followed by bite of other animals such as cat, cow, monkey, horse, pigs, camels which can be reduced if adequate animal vaccination and control, education of risk individuals, appropriate medical care is ensured.⁷⁻⁸ In India rabies is found to affect mainly poor and vulnerable population from low socio-economic status and mainly children in the age-group of 5-15 year in remote rural communities, but only a few parents sought medical advice that too with delay.⁹⁻¹⁰ Each year approximately

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1.1 to 1.5 million people are receiving post exposure prophylactic treatment.¹¹ In spite of receiving post exposure prophylaxis there are reported treatment failures resulting in human rabies. Various reason responsible for this are – a) Delay in starting treatment due to late reporting of patients b) No proper wound wash c) Suturing of animal bite wounds without local infiltration of RIG d) Application of irritants to bite wounds.¹² There are many myth and false belief associated with wound management like application of turmeric, burning of wound etc among people which are not useful and scientific and determine post exposure treatment seeking behavior of animal bite victims. Among general community there is a need to create awareness regarding epidemiology and management of animal bites. The study was done with an objective of determining epidemiological profile of animal bite cases and various cultural practices practiced by the same before visiting ARV OPD.

MATERIAL AND METHODS

The present cross sectional study was conducted at ARV OPD of Govt. Medical College, Latur. The study was conducted for a period of 1 month from 1st September

2019 to 30 September 2019 with an objective to determine variety of cultural practices practiced by the patients before visiting ARV OPD .All the new animal bite patients visiting to ARV OPD were enrolled in the study. Total 184 animal bite cases participated in the study. Data was collected using a predesigned and pretested questionnaire by interviewing them in local language. The questionnaire included socio-demographic data and information in relation to time interval between bite and attending ARV clinic, type of animal bite with category, and various cultural practices practiced by the patient before visiting ARV OPD. In case if animal bite case was of age 12 or below the information was obtained from the person accompanying the animal bite case. At the end of interview all the animal bite cases were given knowledge regarding hazard of various cultural practices and importance of complete post-exposure prophylaxis. The animal bite cases who refused to give information were excluded from the study.

Statistical Analysis:

Data was entered in Microsoft Excel and Analyzed. Frequencies and percentage were calculated. Chi square was used.

RESULTS

Out of total 188 animal bite cases 129 were male and 59 were female. Less than 12 year of age were 74 and greater than 12 were 114 animal bite cases. From urban area there were 121 cases and 66 from rural area. Majority of the animal bite cases were hindu (161) by religion and were from joint family (113). Out of total animal bite cases 48.40 % of cases were educated above higher secondary. Out of 188 animal bite cases, 65 cases were belonging to SEC II, 58 to III, 62 to IV and 2 to V.(Table No. 1)

Table 1: Sociodemographic Profile of Animal Bite cases

Sr. No.	Sociodemographic Factors	Frequency (N=188)	Percentage
1.	Age		
	< 12	74	39.36 %
	>12	114	60.63 %
2	Sex		
	Male	129	68.61 %
	Female	59	31.33 %
3	Address		
	Urban	122	64.89 %
	Rural	66	33.51 %
3	Religion		
	Hindu	161	85.63 %
	Muslim	25	13.29 %
	Buddhist	1	0.53 %
	Others	1	0.53 %
2.	Education		
	Illiterate	3	1.59 %
	Primary	0	0 %
	Secondary	28	14.89 %
	Higher Secondary	66	35.01 %
	Graduate	32	17.02 %
	Post-graduate	59	31.38 %

3.	Occupation		
	Housewife	27	14.36%
	Agricultural Labourer	23	12.23 %
	Non-agricultural labourer	59	31.38 %
	Service	36	19.14 %
	Business	25	13.29 %
	Student	18	9.57 %
4.	Socioeconomic status		
	Class I	0	0
	Class II	65	34.57 %
	Class III	58	30.85 %
	Class IV	62	32.97 %
	Class V	3	1.59 %
5.	Type of family		
	Nuclear	21	11.17 %
	Joint	113	60.10 %
	Three generation	54	28.72 %

Of total animal bite cases, 48.93 % cases has approached to ARV OPD within 24 hr, in the range of 1-2 days were 39.36%, in a range of 2-4 days were 10.63 % and greater than 4 days were 1.06 % . (Table No 2)

Table 2: Time interval between bite and attending ARV Clinic

Time interval	Frequency	Percentage
Within 24 hr	92	48.93%
1-2 days	74	39.36%
2-4 days	20	10.63%
>4 days	2	1.06%
Total	188	100

151 cases of 188 were of Dog bite, 32 were of cat bite, 4 were of monkey bite and 1 was of pig bite case.(Table-3)

Table 3: Distribution of cases as per type of animal bite

Animal	Frequency	Percentage
Dog	151	80.31 %
Cat	32	17.02 %
Monkey	4	2.12 %
Pig	1	0.53 %
Other	0	0 %
Total	188	100

Out of 188 animal bite cases, 88 (46.80%) were of Cat III, 98 (52.12%) were of Cat II and 2 (1.06%) were of Cat I. (Fig. 1)

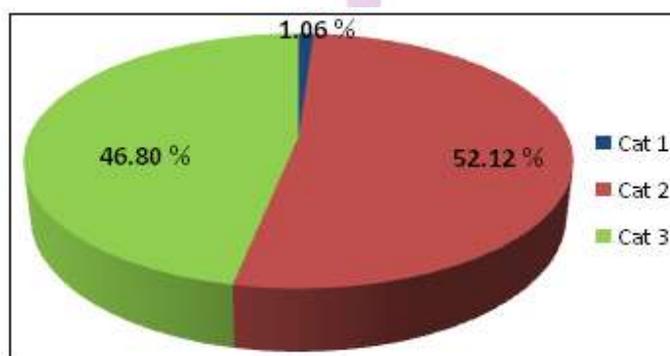


Figure 1: Distribution of cases as per type of category

Table 4: Distribution of animal bite cases according to pre-treatment practices

	Frequency	Percentage
Various Cultural Practices	118	62.76 %
No Pre-treatment practices	70	37.23 %
Total	188	100 %

Table 5: Cultural Practices related to animal bite cases

Cultural Practices	Number (N-118)	Percentage
Lime	17	9%
Burning	40	21.3%
Burning, Lime, Veeda	46	24.5%
Burning, Lime	10	5.3%
Burning, Veeda	4	2.1%
Lime, veeda	1	5%

Various cultural practices were practiced by animal bite cases before visiting to ARV OPD. Out of total 188 cases 17 animal bite cases practiced application of lime, 40 burning of wound, 46 of them practiced burning, application of lime and veeda, 10 practiced burning of wound and application of lime, 4 burning and veeda, 1 application of lime, veeda and remaining 70 practiced none of the cultural practices before visiting to ARV OPD. (Table 4 and Table 5) A significant difference was found between education level of animal bite cases and pre-treatment practices. ($\chi=47.119$, $P = 0.000$). Animal bite cases with education of higher secondary and below are more likely to practice one or the other pre-treatment practices compared to those of education above higher secondary level.

DISCUSSION

Gender and residence wise distribution of animal bite cases was similar to findings in a similar study conducted by Kendre Varsharani V *et al* in same institution seven year back, that is there were more male animal bite cases as compared to female animal bite cases and majority of them were from urban area.¹³ Only about half of the patient (48.93 %) were visiting to ARV OPD within 24 hour. Similar finding were reported in study by Patil SP *et al* in which 47.1 % were visiting to ARV OPD within 24 hour.¹⁴ The number was less as compared to study conducted by Shah venu *et al* and Omar Aziz Wani *et al* were 68.5 % and 63.66 % of patients were visiting to ARV OPD within 24 hour of dog bite.^{15,16} In present study dog were responsible for 80.31 % of total animal bite cases similar to finding in a study conducted by Omair Aziz Wani *et al* and Nag *et al* in which dog were responsible for 81 % and 80 % of total animal bite cases respectively.^{16,17} In present study out of 188 animal bite cases, 88 (46.80 %) were of Cat III, 98 (52.12 %) were of Cat II and 2 (1.06 %) were of Cat I. Same number of Cat I patients (1.8 %) were found in study conducted by Nag *et al*, however in contrast to present study Cat III patients (65.8 %) were more as compared to Cat II (32.4 %).¹⁷ In the present study 62.8 % of total animal bite cases were practising various cultural practices before visiting to ARV OPD, similar to findings in a study

conducted by Nikita Sharma *et al* in which 62.4 % of animal bite cases were practicing various local remedies before taking treatment.¹⁸ The number is more as compared to study conducted by Omair Aziz Wani *et al*, Kamble B *et al*, Patil SP *et al* and Gogtay *et al* where 45%, 36.3 %, 24.3% and 12.3 % of animal bite cases were practicing various local indigenous pre-treatment practices.^{16,19,14,20} The percentage is somewhat less as compared to similar study conducted in similar institute by Kendre *et al*. in which 71.69 % of animal bite cases were practicing various cultural practices before visiting to ARV OPD.¹³ A significant difference was found between education level of animal bite cases and pre-treatment practices practiced by animal bite cases in present study. Kamble B *et al*, in his study also found a significant difference between knowledge about rabies and education level of study population.¹⁹

CONCLUSION

More than half of animal bite cases (62.8 %) were practicing various cultural pre-treatment practices before visiting to ARV OPD. These cultural practices are of no use and many times harmful. Association between level of education and practice of various pre-treatment cultural practices was found out to be significant. It is necessary to educate people through various methods of health education measures to reduce false belief and misconception about management of animal bite and to encourage appropriate health seeking behavior among them.

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