International Journal of Medical Research Professionals
P-ISSN: 2454-6356; E-ISSN: 2454-6364
DOI: 10.21276/ijmrp

Original Research Article.

A Cross-Sectional Study of Attitude and Practices Regarding Animal Bite Among Attendees of Anti Rabies Clinic of a Teaching Hospital, Jaipur

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ABSTRACT

Introduction: Rabies is a zoonotic disease having almost 100% fatality. Proper and timely management of animal bite cases can prevent the fatal disease. We conducted this study to assess the attitude and practices of animal bite victim regarding animal bite management at Anti rabies clinic, RDBP Jaipuria hospital.

Methods: This observational study was conducted among 107 attendees of anti-rabies clinic of Govt. R.D.B.P. Jaipuria hospital associated with RUHS College of medical sciences, Jaipur from February 2018 to July 2018. Data was collected using a predesigned semi-structured questionnaire. Data were analysed using IBM SPSS software version 20.0.

Results: 107 participants were enrolled in the study. Maximum participants were males (72%), from age group of 26–35 years (43%), urban area (72%), and studying in 10th standard (22.5%). 76% of the participants were having good attitude but only 36% participants were having good practices regarding management of animal bite cases. Good attitude regarding reaction after animal bite, seriousness of disease, whom to consult, what to do immediately after bite of animal, vaccination of bite victim, pet dog vaccination and vaccination of contacts was among 55.14%, 48.6%, 88.78%, 56.07%, 93.46%, 66.35% and 37.38% respondents respectively. Only 56% were having practice of washing wound with soap and water while 16.82% were practicing application of red chilli, 14% were practicing lime application and 13% participants were having practice of applying nothing on animal bite wound. 44% victims did not wash the wound before visiting the clinic. Majority (98.13%) visited doctor after animal bite while 1.87% visited to traditional healers first.

Conclusion: Practices of applying red chilli and lime on the animal bite wound is widely prevalent in the community. Community health awareness campaign should involve preventive measures of rabies and immediate actions after animal bite.

Key words: Rabies, Practices, Attitude, Animal Bite.

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Article History:

Received: 08-06-2019, **Revised:** 04-07-2019, **Accepted:** 23-07-2019

Access this article online	
Website: www.ijmrp.com	Quick Response code
DOI: 10.21276/ijmrp.2019.5.4.018	

INTRODUCTION

Rabies is a zoonotic disease having almost 100% fatality.[1] An estimated 55,000 people die annually from rabies.[2] In India; dogs are responsible for about 97% of the human rabies, followed by cats (2%), jackals, mongoose and others (1%).[3] A person is bitten every 2 seconds, and someone dies from rabies every 30 minutes, according to The Association for the Prevention and Control of Rabies in India.[4] Most of the deaths are due to ignorance and lack of access to affordable services.[5]

Proper and timely management of animal bite cases can prevent the fatal disease. Four doses of Anti-rabies vaccines at day 0, 3, 7 and 28 by intradermal routes are provided for post exposure prophylaxis along with infiltration of anti-rabies serum as per category of bite and tetanus toxoid injection as per guidelines.[6] Atleast 20 minutes washing of wound with soap and water and antibiotics and anti-inflammatory medicines are prescribed. Perception and practices of animal bite victim towards treatment

play an important role for prevention of rabies. Myths are prevalent in the community regarding wound management of animal bite for example application of red chilli, lime, oils and herbs, faith in indigenous medicine, not washing the wound properly and ignorance towards medical advice and vaccination for post exposure prophylaxis.[7] Not only myths are prevalent, people are still using wrong practices of wound management in the community as per their myths. We conducted this study to assess the attitude and practices of animal bite victim regarding animal bite management at Anti rabies clinic (ARC), RDBP Jaipuria hospital.

METHODS

This observational cross sectional study was conducted among attendees of anti-rabies clinic of Govt. R.D.B.P. Jaipuria hospital associated with RUHS College of medical sciences, Jaipur from February 2018 to July 2018. Sample size was calculated to be 100 assuming 50% good practices among attendees considering maximum variance and relative error of 20% at 95% confidence interval using formula of 4PQ/l2.

For study purpose we enrolled 107 eligible consent giving participants. Participants were ensured of their anonymity. The study process didn't involve any harm to participants.

Exclusion Criteria

1. <15-year-old attendants,
2. Those who did not give consent
3. Follow-up visitors (repeat visitors).

Data was collected using a predesigned semi-structured questionnaire at the time of first visit to the clinic. Questionnaire contained socio-demographic detail and a total 13 questions including 8 questions for attitude and 5 questions for practices. Scoring was done as 1 for each right answer and 0 for a wrong answer or unanswered question. For attitude, score 0–4 was poor, 5–8 was considered as good attitude. For practice, 0-2 was considered as poor practice while 3-5 was considered as good practice. Data thus collected were entered in Microsoft Excel software and analysed using IBM SPSS software version 20.0. Continuous data were expressed as mean and standard deviation, and count data were expressed as proportion.

Table 1: Socio-demographic profile of attendees of Anti Rabies Clinic

Age (year)	Number	Percentage
15-25	38	35.51
26-35	46	42.99
36-45	15	14.02
46-55	6	5.61
>55	2	1.87
Sex		
Male	77	71.96
Female	30	28.04
Education		
Illiterate	12	11.22
5th	4	3.74
8th	20	18.7
10th	24	22.42
12th	14	13.1
Graduate	22	20.55
Post graduate and above	11	10.27
Residence		
Rural	30	28.04
Urban	77	71.96
Total	107	100

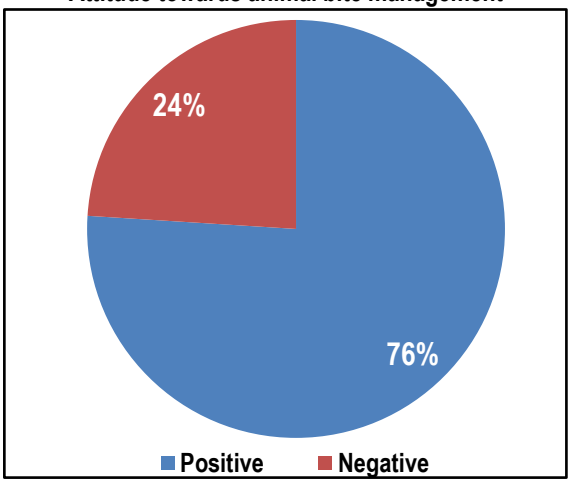
Table 2: Attitude regarding management of animal bite cases

SN	Attitude	Number having good attitude (n)	(%)
1.	**What would be your reaction if you are bitten by an animal?**	59	55.14
2.	**What would you do immediately if you are supposedly bitten by an animal?**	60	56.07
3.	**Whom would you consult if bitten by a dog?**	95	88.78
4.	**How serious disease do you think caused by dog bite?**	52	48.6
5.	**According to you, which group of people are more bitten by animals?**	95	88.78
6.	**Would you prefer vaccination if bitten by a dog?**	100	93.46
7.	**Do you think pets should be vaccinated against rabies?**	71	66.35
8.	**Should the close contacts/ nursing person of rabies patients also get vaccination?**	40	37.38

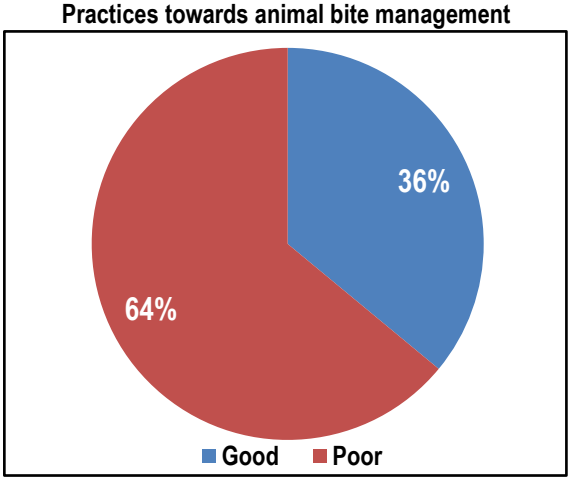
Table 3: Practices regarding animal bite

SN	Practice	Number having good practices (n)	(%)
1.	What do you applied on animal bite wound?	60	56.07
2.	Where did you go when bitten by an animal?	105	98.14
3.	What have you done to the animal which has bitten you?	55	51.4
4.	For how much duration you washed wound of animal bite?	16	14.95
5.	What did you do first of all after animal bite?	60	56.07

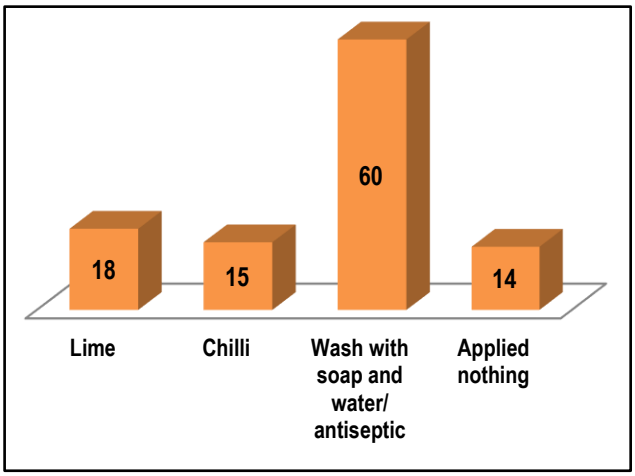
Graph 1: Distribution of participants according to their Attitude towards animal bite management



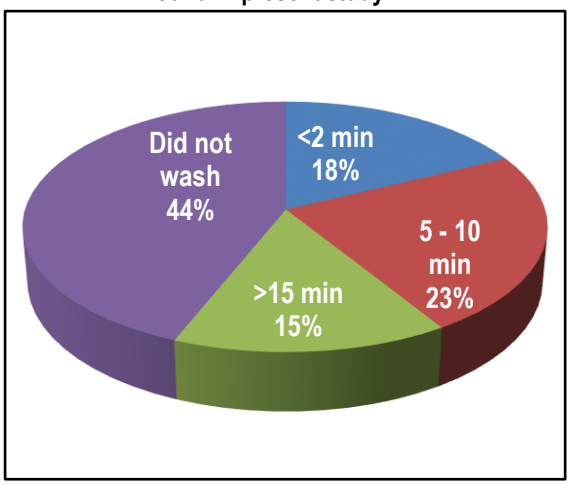
Graph 2: Distribution of participants according to their Practices towards animal bite management



Graph 3: Distribution of participants according to wound management



Graph 4: Approximate duration of washing of wound in present study



RESULTS

107 participants were enrolled in the study. 72% were males and 28% were females. Maximum participants were from the age group of 26–35 years (43%), urban area (72%), and studying in 10th standard (22.5%) [Table-1]. Most participants were victims of dog bite (92.5%). Out of 99 cases of dog bite, 69% were bitten by street dogs and 31% were bitten by pet dogs. Most common site of bite was lower limb (62%) followed by upper limb (28%), back and neck (9%), and face (1%). Maximum bites were of category 2 (73.8%) with unprovoked bite (64.5%). In our study, maximum bite incidences occurred in the morning (43%) followed by evening (35.5%), night (14%), and the lowest in the afternoon (7.5%). Almost three forth (76%) of the participants were having good attitude while one forth (24%) were still having poor attitude regarding management of animal bite cases. [Graph-1] Despite of having good attitude (76%), only 36% participants were having good practices regarding primary management of animal bite cases. [Graph-2] Good attitude for reaction if bitten by an animal, seriousness of disease, whom to consult, what to do immediately after bite of animal, vaccination of bite victim, pet dog vaccination and vaccination of contacts was among 55.14%, 48.6%, 88.78%, 56.07%, 93.46%, 66.35% and 37.38% respondents respectively. [Table-2] Only 56% were having practice of washing wound with soap and water while 16.82% were practicing application of red chilli, 14% were practicing lime application and 13% participants were having practice of applying nothing on animal bite wound.[Graph-3] 44% victims did not wash the wound before visiting the clinic. 17.76% washed wound only for <2 minute. Only 15% participants were having a practice of washing wound with soap and water for >15 minutes. [Graph-4] Majority (98.13%) visited doctor after animal bite while 1.87% visited to traditional healers first.

DISCUSSION

Assessment and improvement of attitude and practices regarding animal bite management play vital role in prevention of Rabies.

107 participants were enrolled in our study. 72% were males in our study similar to the study of Ganasva A et al.[1] and Jain, et al.[8] Maximum bites were of category 2 (73.8%) in our study while 83.8% were classified as Category 2 in Ganasva A et al's study.[1] Maximum participants education was upto 10th standard (22.5%) in this study while maximum participants (43.75%) education was up to high school in Chandan et al's study.[9] Almost three forth (76%) of the participants were having good attitude in our study while 18.5% in Abraham Ali el al study.[10] 36% participants were having good practices regarding primary management of animal bite cases. While 11.5% were having good practices in Abraham Ali el al's study[10] Positive attitude towards consultation to doctor was among 88.78% in our study and 77% in Chandan et al's study[9] and Tripathy RM et al's study[11], 97% in JT Muthunuwan et al study.[12] Positive attitude for vaccination of bite victim was among 93.46% participants in our study similar to 94% in JT Muthunuwan et al study.[11] 81% of Chandan et al[9] and 66.35% of our study participants have positive attitude towards vaccination of pet for rabies. Only 56% were having practice of washing wound with soap and water in our study while 36% in Chandan N et al study.[9] 70.8% of the respondents of Tadesse Guadu et al[13] study washed the wound with water and soap immediately. Only 30.7 % practiced washing of the wounds with water in Reta T. Digafe et al study.[14] while only 2% washed wound with soap and water in Jain, et al study[8] as the study population was of rural background not having awareness about importance of washing wound. 16.82% were practicing application of red chilli in our study similar to the study of Ganasva A et al (15.2%).[1] while 80% in Jain, et al study[8] and it might be due the fact that this study is at CHC level. 14% were practicing lime application in our study and 16% applied lime in Ganasva A et al study.[1] 13% participants were having practice of applying nothing on animal bite wound while 37% in Ganasva A et al study.[1] 44% victims did not wash the wound before visiting the clinic in our study similar to study of Ganasva A et al (37%).[1] 1.87% visited to traditional healers first in our study as compared to 19% Chandan N et al's study.[9] 88% study participants in our study were literate and 72% were from urban area so practice of visiting to traditional healers is lesser in our study.

CONCLUSION

Community awareness regarding preventive measures and initial actions for animal bite cases is still not enough to prevent rabies completely. Practices of applying red chilli and lime on the animal bite wound is widely prevalent in the community and they are confident enough for what they had done is a good job by applying it on the wound. Community health awareness campaign should involve preventive measures of rabies and immediate actions after animal bite. Besides proper counselling, this should also be included in each health talks arranged at peripheral field area along with discussion of mother and child health or nutrition or any such topic, reveal the myths regarding preventive aspects of rabies in the community so that atleast practice of applying chilli and lime can be abolished. Only one line in health talks of ASHA/ANM/ MPW or any other health worker can play major role in improving practices of people about prevention of rabies and will move us one step closer towards rabies prevention.

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Source of Support: Nil. **Conflict of Interest:** None Declared.

Cite this article as: Priyanka Kapoor, Aradhana Singh, Mohit Sharma, Ravindra Kumar Manohar. A Cross-Sectional Study of Attitude and Practices Regarding Animal Bite Among Attendees of Anti Rabies Clinic of a Teaching Hospital, Jaipur. Int J Med Res Prof. 2019 July; 5(4):77-80. DOI:10.21276/ijmrp.2019.5.4.018