

Original article

A Comparative Study of Perception of people regarding animal bite and its management in rural and urban areas of Meerut District

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Abstract

- Objective** : To study the perception of people regarding animal bite and its management
- Study Design** : Cross-sectional study by interview method.
- Subjects** : 400 inhabitants of village Khajuri of Meerut district and 160 inhabitants of Multan nagar area in Meerut city.
- Statistical analysis** : Simple proportions and percentages.
- Results** : It was found that in case of animal bite, majority of people in rural area would prefer indigenous methods of treatment including *tantra-mantra* and *jhaad-phook* etc., whereas in urban area people would prefer seeking help of a qualified doctor.
- About 10% of people in both the areas believe that animal bites cause some type of 'Madness disease', which can be cured, and majority had very little knowledge about rabies, its transmission, management and prophylaxis.
- Only 7% in rural area and 4.4% in urban area knew about the anti-rabies vaccine.
- 39.5% in rural area and 20.8% in urban area knew that pets should be immunized to prevent animal bite diseases.
- Key words** : Animal bite, treatment approach, knowledge of Rabies, Anti Rabies vaccine.

Introduction

Rabies is an enzootic and epizootic disease of world-wide importance. Deaths caused by rabies are responsible for 1.74 million Disability Adjusted life years (DALY) each year. WHO-APCRI survey estimates the human rabies mortality to be about 20,000 deaths annually⁽¹⁾. The survey found that 46.9% of total bite cases took Anti-rabies vaccination. People have very basic knowledge about Anti-rabies treatment of getting 14 injections on stomach after dog bite as per old concept, but not aware of the disease which could occur if they do not manage dog bites⁽²⁾. By mere washing of wounds and application of antiseptics, the risk of rabies will reduce by about 50%⁽³⁾. There are myths and false beliefs associated with wound management. These include application of oils, herbs and red chillies on the

wound inflicted by rabid animal. More faith in indigenous medicines that are of unproven efficacy and not washing of wound properly because of fear that it would get infected⁽⁴⁾.

This study is undertaken to highlight the perception of general public regarding animal bite and its management.

Materials and Methods:

Study area: The study was conducted in rural area of village Khajuri in Meerut district and urban area of Multan nagar in Meerut city.

Study Period: The study was carried out from January 2008 to April 2008

Study design: This is a community based cross-sectional study.

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Participants: Total 400 inhabitants of rural area and 160 inhabitants of urban area were contacted. Selection of the areas and families were done by simple random method. Each area was divided into four quadrants and one centre for the study purposes.

The head of the household or in his/ her absence any other adult member of the family was interviewed.

Study instrument: A two page structured questionnaire was prepared. The questions were related to their perception regarding animal bites, rabies, and its management, supposed first-aid approach adopted by them, knowledge about anti rabies vaccine.

Statistical Analysis: The data was analysed by simple proportion and percentages.

Results and discussion

Total 400 inhabitants of rural area and 160 inhabitants of urban area were included in the present study.

Table-I
Distribution of People According To literacy status

Literacy Status	RURAL No (%)	URBAN No (%)	TOTAL No (%)
Illiterate	208 (52.0)	26 (16.3)	234 (41.8)
Primary	105 (26.3)	65 (40.6)	170 (30.4)
Higher secondary	67 (16.7)	53 (33.1)	120 (21.4)
Graduate & above	20 (5.0)	16 (10.0)	36 (6.4)
TOTAL	400 (100.0)	160 (100.0)	560 (100.0)

Table-II
Distribution of People According To Residential area

Area	MALE No (%)	FEMALE No (%)	TOTAL No (%)
Rural	382 (95.5)	18 (4.5)	400 (100.0)
Urban	154 (96.2)	6 (3.8)	160 (100.0)
TOTAL	536 (95.7)	24 (4.3)	560 (100.0)

Out of the total, 536 (95.7%) were males and 24 (4.3%) were females. Almost same pattern of sex distribution were found in rural and urban area.

Almost half (52.0%) of the studied population in rural area were illiterate whereas only 16.3% of population were illiterate in urban area.

Regarding treatment approach, only 20% in rural area would prefer going to doctor and majority

(42.7%) would prefer indigenous methods like *tantra-mantra*, *jhaad-phook* and 15.3% people would prefer home remedies like applying red chillies or turmeric powder etc., whereas in urban area majority (78.2%) would prefer seeking help of a qualified doctor in case of an animal bite. Interestingly, almost same number of people i.e. 22.0% in rural area and 21.8% in urban area, would do nothing and would leave the animal bite wound untreated. Singh et al (3) in their study in villages of Gujarat reported 36.4% people would consult doctor and only 13.3% people would leave the wound untreated.

Table-III
Distribution of People According To Preception Regarding Treatment Approach

Treatment Approach	RURAL No (%)	URBAN No (%)	TOTAL No (%)
Qualified Doctor	80 (20.0)	125 (78.2)	205 (36.6)
Home Treatment	61 (15.3)	9 (5.6)	70 (12.5)
Indigenous methods	171 (42.7)	0 (0.0)	171 (30.5)
Untreated	88 (22.0)	26 (21.8)	114 (20.4)
TOTAL	400 (100.0)	160 (100.0)	560 (100.0)

On knowledge regarding disease caused by dog bite, majority of people in rural area (79.8%) and in urban (98.7%) had no knowledge. Moreover, in rural area, 15.6% people called it as 'Madness disease'. Comparing with study of Singh et al(3) in Gujarat 100% people in villages knew about rabies and 96.6% individuals knew about its transmission by dog bite. Thus the knowledge about dog bite was much more in rural areas of Gujarat than in Meerut.

About 7.0% people in rural area believed that there is treatment for disease caused by dog bite as compared to 4.4% people in urban area. Whereas in the study by Singh et al(3) 30.2% people were sure that it can be cured by treatment.

Table-IV
Distribution according to the knowledge regarding ARV

Condition	Area	Yes p<0.05 No (%)	No No (%)	Total No (%)
Does ARV Prevents Rabies	Rural	28 (7.0)	372 (93.0)	400 (100.0)
	Urban	7 (4.4)	153 (95.6)	160 (100.0)
Is PEP Necessary	Rural	32 (8.0)	368 (92.0)	400 (100.0)
	Urban	7 (4.4)	153 (95.6)	160 (100.0)

About the knowledge of anti rabies vaccine (ARV), about 7.0% of participants in rural and 4.4% in urban area believed that it can prevent rabies and that PEP is necessary. In the study by Singh et al about 86.6% individual were aware about ARV.

39.5% in rural area and 20.8% in urban area believed that pets should be vaccinated which can be compared with the study of Singh et al(3) where 24.4% individuals were of the opinion that pets should be immunized to prevent diseases caused by animal bite to humans.

Table-V
Distribution according to the knowledge regarding Disease caused by Dog Bite

Area	Name of disease Rabies (P<0.05)	Madness No. (%)	No knowledge No. (%)	TOTAL
Rural	18 (4.5)	63 (15.6)	319 (79.8)	400 (100.0)
Urban	2 (1.3)		158 (98.7)	160 (100.0)
	Disease Transmitted By Dog bite	Other Modes	No Knowledge	Total
Rrual	19 (4.7)		381 (95.3)	400 (100.0)
Urban	7(4.4)		153 (95.6)	160 (100.0)
	Any treatment Animal bite		No	Total
Rural	28 (7.0)		381 (93.0)	400 (100.0)
Urban	7 (4.4)		153 (95.6)	160 (100.0)

Conclusion

Our study indicated that the knowledge about animal bites, which can cause rabies -a fatal disease of humans, is still lacking not only among people in rural areas, but also among urbans. The point to be highlighted is that majority of people believe in indigenous methods or either home remedies for treating animal bite wounds and still others will do nothing and will keep it untreated. So a thorough workout is needed to organize awareness programe regarding management of animal bites in rural and urban areas.

In absence of a National Rabies Control Programme, local health authorities and Medical Institutions should take the lead to increase awareness amongst the community regarding primary prevention of animal bites as well as health problems associated with it.

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Announcement

The APCRI Newsletter is published every six monthly, in October and in April. APCRI members and the members of the Scientific Community are requested to contribute News Clippings, Photographs and Reports on Scientific activity on Rabies and Related matter for publication in the Newsletter.

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