

Title: CONCEPT OF PRACTICES TO BE FOLLOWED AFTER ANIMAL BITE AMONG GENERAL POPULATION FROM SELECTED URBAN AND RURAL AREAS OF DEHRADUN

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Keywords Rabies, Awareness to correct practices, Faith healers, Anti Rabies Vaccines

Abstract This cross-sectional study was carried out to know the concept of people about the practices to be followed after animal bite in four villages (Dandi, Daudwala, Nai Basti, Nauka) and one urban area (Muslim colony) from field practice areas of Community Medicine Department, SGRR Medical College & SMI Hospital Dehradun. Total 244 respondents were interviewed in the above mentioned 5 areas with 120 respondents from rural areas and 124 from rural areas.

Original Article

Concept of Practices to be followed after Animal Bite among General Population from selected Urban and Rural areas of Dehradun

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ABSTRACT

This cross sectional study was carried out to know the concept of people about practices to be followed after animal bite in four villages (Dandi, Daudwala, Nai Basti, Nauka) and one urban area (Muslim Colony) from field practice areas of Community Medicine Department, SGRR Medical College & SMI Hospital, Dehradun. Total 244 respondents were interviewed in the above mentioned 5 areas with 120 respondents from rural areas and 124 from urban area. Respondents were selected by following random method. Level of awareness pertaining to correct practices after animal bite in people of the selected areas was found to be low as 26.6% (65) respondents admitted to following one or more correct practices following animal bite. Most common first aid measure followed is application of salt, chillies or turmeric to the wound (35.7%) followed by taking opinion of a faith healer (32.4%) before consulting qualified doctor (23.8%). Overall awareness of population regarding anti rabies vaccination was low as only (15.9%) responded by saying that anti rabies vaccination should be given following animal bite. Upon comparison of people's concepts in urban and rural areas, it was found that urban respondents fared only slightly better (28.2%, 35 respondents) in following one or more correct practices after animal bite as compared to their rural counterparts (25.0%, 30 respondents). This difference was not found to be statistically significant.

Statistical Analysis: Percentages and proportions, Chi Square Test

Key Words: Rabies, Awareness to correct practices, Faith healers, Anti Rabies Vaccines

INTRODUCTION

Rabies is a vaccine preventable disease in both humans and animals. It is a disease of poverty affecting very vulnerable often remote/isolated rural population & young people (mostly affecting the age group 5-15 years). More people die from rabies than from yellow fever, dengue and Japanese encephalitis combined (Report of a WHO Inter regional Consultation, Switzerland). Rabies is viral zoonosis of worldwide importance and a problem of considerable magnitude in India. From 1985, India reported every year about 25,000 to 30,000 human rabies deaths, which accounted to about 60% of the global mortality. However these figures were an estimate worked out on projected statistics of isolation hospitals in the country, actual mortality may be much more than those reported. However, this disease burden is largely preventable (upto 50%) by following recommended practices following animal bite. Every year approximately 1.1 to 1.5 million people are receiving post

exposure prophylactic treatment. Although 2 million animal bites occur each year in India, 99% of transmission is maintained by dogs¹. In China, about 5 million people are estimated to be vaccinated annually. People have very basic knowledge about anti-rabies treatment (getting 14 injection after dog bite), as per the old concept, but not aware of the disease which could occur if they do not manage dog bites. About 0.40 million people continue to receive the sheep brain vaccine despite the fact WHO has recommended for its discontinuation². There are many myths and false beliefs associated with wound management. These include application of oils, herbs, and red chillies on the wounds inflicted by rabid animals. There is more faith in indigenous medicines that are of unproven efficacy and not washing the wound properly because of fear that it would get infected^{3,4}. This study is undertaken to highlight the practices followed by people regarding animal bite management in the selected areas.

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Objectives

1. To know the level of awareness about correct practices to be followed after animal bite in people of the selected areas.
2. To find out concept of first aid measures to be followed after animal bite
3. To study awareness of people regarding anti rabies vaccination

Methodology

- **Study Area:** Four villages (Dandi, Daudwala, Nai Basti, Nauka) and one urban area (Muslim Colony) were randomly selected from field practice areas of Community Medicine Department, SGRRIM&HS, Dehradun
- **Study Period :** The study was carried out from February to March 2012
- **Study Design:** Community based cross-sectional study
- **Participants :** Purposely, four villages and one urban area were selected. Total 244 respondents were interviewed in the above mentioned 5 areas with 120 respondents from rural areas and 122 from urban area. Respondents were selected by following random method. The head of the household or in his/her absence any other adult member of the family was interviewed.
- **Exclusion Criteria:** Children below the age of 10 years were excluded from the study.
- **Study Instrument :** Unstructured interview technique was adopted. Information thus obtained was recorded in a pre prepared format. The questions were about general information (name, age, sex, relationship to head of household and occupation), knowledge about practices to be followed after incidence of dog/other animal bite. Supposed first aid measures to be adopted and knowledge regarding antirabies vaccines was also ascertained.
- **Statistical Analysis:** The data was analyzed by using percentages and proportions. Chi Square Test was applied for rural-urban comparison.

Results

Level of awareness pertaining to correct practices following animal bite in the general community of the selected areas was found to be low as 26.64% (65) respondents admitted to following one or the other correct practices following animal bite. Most common first aid measure followed is application of salt, chillies, turmeric or some other herbal preparation to the wound (35.66%) followed by taking opinion of a faith healer or local doctor (32.38%) before consulting qualified doctor (23.77%). Overall awareness of general population regarding anti rabies vaccination was low as only 15.98% responded by saying that anti rabies vaccination should be given following animal bite. Upon comparison of people's concepts in urban and rural areas, it was found that urban respondents fared only slightly better (27.9%, 34 respondents) in following only one or more correct practices after animal bite as compared to their rural counterparts (25.8%, 31 respondents). This difference was not found to be statistically significant. Results can be tabulated as under :

Table I
Age and Sex Wise Break up of Respondents

Age Group (yrs)	Male Sex		Female Sex		Total	
	No.	%	No.	%	No.	%
10-19	20	8.2	12	4.9	32	13.1
20-29	16	6.6	44	18.0	60	24.6
30-39	10	4.1	46	18.85	56	22.95
40-49	09	3.7	25	10.2	34	13.9
50-59	13	5.3	23	9.4	36	14.75
60-69	17	7.0	02	0.8	19	7.8
>=70	02	0.8	05	2.0	07	2.9
Total	87	35.7	157	64.3	244	100.0

Table 2
Occupation Wise Break up of Respondents

Occupation	Number	Percent
Housewife/Student/Retired	172	70.5
Unskilled Workers	10	4.1
Semi-skilled Workers	08	3.3
Skilled Workers	07	2.7
Private Job/Government	24	9.8
Service/ Shop Owner		
Businessman	19	7.8
Professional	04	1.6
Total	244	100.00

Table 3
Area Wise Break up of Respondents

Area	Number	Percent
Rural	120	49.2
Urban	124	50.8
Total	244	100.00

Table 4
Knowledge of Respondents Regarding Correct Practices to be Followed After Animal Bite

Practice	Number	Percent
Washing wound with soap and adequate water for at least 15 minutes	14	5.7
Using specified anti septics (iodine, alcohol based)	0	00
Going to qualified doctor	58	23.8
Observing animal for at least 10 days	36	14.75
Vaccination against rabies	39	16.0
Total	147	60.25

Table 5
Knowledge of Respondents Regarding Incorrect Practices Usually Followed After Animal Bite

Practice	Number	Percent
Rubbing salt/chillies/ turmeric/herbal preparations over wound	87	35.7
Using any antiseptic available at home over wound	07	2.9
Consulting faith healers, local doctors	79	32.4
Getting wound stitched immediately	06	2.5
Total	179	73.4

Discussion

In our study only 23.77% people would like to visit a doctor and 5.74% would like to apply first-aid measures than see the doctor. Others will either do old customs (35.66%) or go to faith healers (32.38%). These results are much less comparable to other studies^{4,5}. In our study 15.98% people are aware about anti-rabies vaccine but due to false beliefs in faith healers and local practitioners (32.38%), very few are interested to apply it as a post-exposure prophylaxis, which is much less than findings of report in CDC⁶. In present study proper first aid measure was known by 31.1% of population only. Narayan et al suggested definite programme for control of dog population in an integrated approach involving environmental measures to reduce habitat, proper garbage disposal, discouraging community owned dogs,

Table 6
Analysis of Respondents Who Told Only Correct Practices to be Followed after Animal Bite

Practice (Age in years)	Number	Percent
10-19	02	0.8
20-29	15	6.15
30-39	21	8.6
40-49	17	7.0
50-59	06	2.5
60-69	03	1.2
>=70	01	0.4
Total	65	26.6
Sex		
Male	21	8.6
Female	44	18.0
Total	65	26.6
Occupational Group		
Housewife/Student/Retired	40	16.4
Unskilled Workers	01	0.4
Semi-skilled Workers	03	1.2
Skilled Workers	02	0.8
Private Job/Government Service/ Shop Owner	09	3.7
Businessman	08	3.3
Professional	02	0.8
Total	65	26.6

Table 7
Comparison of Practices Followed in Rural and Urban Areas

Area	Followers of correct Practice		Followers of incorrect Practice		Total	
	No.	%	No.	%	No.	%
Rural	30	12.3	90	36.8	120	49.2
Urban	35	14.3	89	36.4	124	50.8
Total	65	26.6	179	73.3	244	100.0

helping dog catching squad, castration, promoting industrial utilization of dog carcasses to help reduce the dog population⁷. In our study raising awareness level of the population regarding correct practices to be followed after animal bite emerged as the main thrust area for action.

Conclusion

It is concluded that concept of people about practices to be followed for animal bite management in the selected areas is still old as 73.36% still believe in following incorrect practices. Level of awareness pertaining to correct practices following animal bite in the general

community of the selected areas is low (26.64%). Most common first aid measure followed among general population following animal bite is rubbing salt/chillies/ turmeric/herbal preparations over wound (35.66%). Awareness of people regarding anti rabies vaccination is very low (15.98%) and a need for holding IEC activities for raising the awareness of people is highlighted.

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