Research Paper Medical Science

To Study the Knowledge, Attitude and Practices Regarding Management of Animal Bites Among General Population in A Rural Area of Jammu - A Community Based Cross-Sectional Study.

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ABSTRACT

Rabies is a preventable acute and fatal viral infection caused by a single stranded RNA virus. Community awareness on all aspects of rabies is generally lacking. To achieve this, a cross-sectional study was carried out in the field practice area of Department of Community Medicine of Government Medical College Jammu. Face to face interview was conducted using semi-structured, pre-tested interview schedule. A total of 131 adult participants (M:F ratio 0.74:1) were studied. 86.9% of the respondents were found to have correct knowledge regarding the consequences of animal bites. Nearly half (52%) of the respondents prefer treatment in government hospitals following animal bite whereas nearly one fourth (27%) respondents preferred private clinics. Nearly one fifth respondents preferred visiting religious places for seeking treatment and having faith in traditional healers and quacks. 57% of the respondents consider the application of indigenous substances on animal wounds like chillies and surma useful. Locally specific IEC campaigns are a key to prevention and control of rabies.

KEYWORDS rabies, knowledge, attitude, practice, myths, information, education and communication

INTRODUCTION

Rabies is acute and fatal viral infection caused by a single stranded RNA virus belonging to genus Lyssavirus of the family Rhabdoviridae. (1) It is a zoonotic disease and nearly 95% of human rabies deaths are caused due to exposure to rabid dogs. However it is preventable by early initiation of post exposure prophylaxis consisting of proper local treatment of wounds, administration of rabies vaccines & rabies immunoglobulin in category 3 exposure.(2)

As per a WHO estimate, globally 55,000 human rabies deaths are reported every year of which, 56 % occur in Asia and 44% in Africa. The majority (84%) of these deaths occur in rural areas. (3)

Rabies in India has been a disease of low public health priority in the medical sector. This is very unfortunate as almost 65,000 people across the globe and 20,000 people in India die of rabies every year, making it the country with the highest rabies fatalities in Asia and the second highest in the world(4) Most of the deaths are due to ignorance and lack of access to affordable services. It is estimated that the number of deaths due to rabies may be 10 times more than that reported.(5) Further, there is no comprehensive treatment possible after clinical occurrence of rabies, which invariably results in mortality. After an animal bite, post-exposure rabies prophylaxis is the only way to prevent rabies disease.(6) India spends about 15 billion rupees for rabies vaccines alone, exerting a sizeable economic burden on the government.(1)

Community awareness on all aspects of rabies is generally lacking viz. first aid, management of animal bites, pre & post exposure prophylaxis etc.

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 suspect rabid animals, and not washing the wound properly.[7,8]Factors like high case fatality, ignorance, lack of access to health care and high cost of treatment on one hand and high preventive potential through early and appropriate treatment means that efforts on many fronts are needed to cut down the mortality. In view of the observation that the patients report late, seek partial treatment and harbour many myths and misconceptions, it was thought pertinent to study the knowledge, attitudes and practices regarding various aspects of animal bites so as to develop locally applicable set of Information, Education and Communication (IEC) services to be delivered to the populations so to lessen mortality and morbidity due to animal bites.

MATERIAL AND METHODS

A cross-sectional study was carried out in the field practice area of Department of Community Medicine of Government Medical College Jammu. Three villages out of 192 villages in block R S Pura were chosen by random sampling. 10 percent of the households in these three villages were again selected

by systematic random sampling method. Any person above the age of 15 years in these households was considered as potential participant in the study. Maximum two members in a particular household were interviewed in case multiple members were present on the day of visit subject to their willingness to participate. These two members were interviewed separately. Face to face interview was conducted using semi-structured, pre-tested interview schedule and the information on knowledge, attitudes and practices related to animal bites was collected from each participant. Once a household was excluded for any reason, next adjacent household was selected as a replacement to the one excluded.

All information about animal bite was recorded as well as any history of animal bite that had occurred in any member of family in past was inquired. A detailed history was obtained from those bitten by an animal during the previous years. Information about the management and outcome was recorded.

RESULTS

We interviewed a total of 131 adult participants comprising of 56 males and 75 female respondents (M:F ratio 0.74:1). Approximately two-third of the respondents were in the age group of 25-64 years of age.

86.9% of the respondents were found to have correct knowledge regarding the consequences of animal bites. Further, 93% of respondents correctly reported dog bite as the most common source of rabies followed by cats and monkeys. Majority of respondents knew that rabies can be transmitted by small puppies (85%) and can be prevented by vaccination (87%) (Table1).

Table 2 details the attitude and practices of the respondents regarding treatment seeking behaviour. Nearly half (52%) of the respondents prefer treatment in government hospitals following animal bite whereas nearly one fourth (27%) respondents preferred private clinics. However, 21 % respondents preferred visiting religious places for seeking treatment. Majority (91%) considered local wound treatment as a necessary part of the treatment.

Table1: Knowledge of respondents regarding various aspects of animal bites.

Aspect	Male	Female	TotalN(%)
Correct knowledge of the consequences of animal bite.			
Rabies	44	59	103 (78.6)
Death	8	3	11 (8.3)
Correct knowledge about three common animals potential of causing Rabies			
Dog	51	71	122 (93)
Cat	28	21	49 (37.4)
Monkey	19	25	44 (33.5%)
Source of knowledge			
Neighbours	36	28	64 (48.8)
Elders	22	26	48 (36.6)
Friends	6	2	8 (6.1)
Media	6	10	16 (12.2)
Correct knowledge about transmission of disease by puppy	49	63	112 (85)
Correct knowledge about prevention of rabies by vaccination	52	62	114 (87)
Knowledge about adverse effects of vaccination on health	17	19	36 (27.5)
Knowledge about precaution while receiving treatment	47	64	111(84.7)

Table2: Attitude and practices of respondents regarding treatment seeking behaviour.

Treatment seeking behaviour	Male	Female	TotalN(%)
Type of facility			
Govt Hospital	32	37	69(52.6)
Private clinics	18	18	36(27.4)
Religious place	8	20	28(21.3)
Practice local wound management	53	67	120(91.6)

Table 3 depicts the finding regarding prevailing myths and misconceptions. 57% of the respondents consider the application of indigenous substances on animal wounds like chillies and surma useful whereas about 20% of respondents reportedly had faith in traditional healers and quacks. Very few considered that food items and cloths should not be shared with the victim of the animal bite.

Table 3: Myths and beliefs regarding treatment of animal-bites.

Myths and Beliefs	Male	Female	Total N(%)
Considered application of surma, chillies on animal wound as useful	18	57	75 (57.2)
Follow traditional healers and quacks.	12	18	30 (21.8)
Non sharing of food, clothing and Consider Isolation of the patient.	6	13	19 (14.5)

DISCUSSION

Animal bites are major public health problem leading to high mortality in India and elsewhere, the mitigation of which require concerted efforts on many fronts including increasing awareness about the disease and its management as well as eliminating bad practices, myths and misconceptions. We observed promising results with regards to prevailing awareness levels about various aspects of rabies causation and management, a finding which finds consistence with high figures reported by other investigators. It probably means that efforts being made to increase awareness are bearing fruit particularly in places where literacy rates are higher.(9,10)However some disturbing practices like thali application continues to be used as a tool for categorizing an individual as bitten by a rabid dong. Therefore, all we need is to reinforce the key messages by maintaining regular contact with the community at large. This is particularly important as the practices adopt-

ed are not commensurate with the awareness particularly with respect to application of local remedies including application of indigenous substances many of whom are known to produce harmful effects or no effect at all. This may be due to the fact that rural population still have large faith in traditional healers.(11,12) Therefore we need to devise an alternative strategy for IEC wherein these faith healers can be effectively utilized to convey right messages.

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