International Journal for Multidisciplinary Research (IJFMR)
E-ISSN: 2582-2160 ● Website: www.ijfmr.com ● Email: editor@ijfmr.com

Knowledge and Practice About Rabies Among People Attending Rabies Clinic in Government Medical College Jalaun

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Abstract

Introduction: Rabies is a vaccine-preventable viral disease which occurs in more than 150 countries and territories. India is endemic for rabies except Andaman and Nicobar and Lakshadweep Islands and accounts for 36% of the world's rabies deaths. Dogs are the source of the vast majority of human rabies deaths, contributing up to 99% of all rabies transmissions to human. Rabies deaths in human are 100% preventable through prompt and appropriate medical care.

Aims and objectives; To assess socio-demographic profile, characteristics of animal bite and practice about Rabies in study participants.

Material and methods; A cross sectional study was conducted in Government Medical College, Jalaun, between august and September 2023. All the study participants coming to rabies clinic were included in study following inclusion and exclusion criteria. Data was collected using a predesigned, pretested semi structured questionnaire and analyzed by using appropriate statistics test.

Results: In our study, animal bite was more in male as compared to female and most of bite occurred in age group of 21-49 years .70% participants were bitten by dogs while 22.75% were bitten by monkey. Most of bite by animal was street animal (83.64%). Regarding practice following bite, 50.9% were using running tap water while some were using antiseptic cream, turmeric and chili on wound.

Conclusion: To raise awareness amongst people regarding rabies and guide them to take appropriate practice following animal bite.

Key world; Rabies, dog bite, vaccination, post exposure prophylaxis, practice

Introduction

Rabies is a vaccine-preventable viral disease which occurs in more than 150 countries and territories. The causative agent belongs to the genus Lyssavirus of the family Rhabdoviridae.[1] India is endemic for rabies except Andaman and Nicobar and Lakshadweep Islands and accounts for 36% of the world's rabies deaths. True burden of rabies in India is not fully known; although as per available information, it causes 18 000-20 000 deaths every year.[2]

About 30-60% of reported rabies cases and deaths in India occur in children under the age of 15 years as bites that occur in children often go unrecognized and unreported.[3] Dogs are the source of the vast majority of human rabies deaths, contributing up to 99% of all rabies transmissions to humans .Rabies deaths in human are 100% preventable through prompt and appropriate medical care. Vaccinating dogs is the most cost-effective strategy for preventing rabies in people[3].

Many myths and cultural rituals still persist without any logic and inappropriate knowledge regarding rabies. Many myths are prevalent in the community for wound management of animal bite, such as application of red chilli, lime, and herbs, instead of washing the wound with soap and water. And many believe that rabies occurs only on bite of animal, and they don't have much knowledge about fate of the disease, Rabies vaccines and its doses and pet vaccination etc. This situation is rooted in the lack of awareness regarding preventive measures of rabies and proper post exposure prophylaxis.

Insufficient dog vaccination, an uncontrolled canine population, and an irregular supply of anti rabies vaccine and immunoglobulin particularly in primary healthcare facilities especially rural areas of India. Keeping above background in mind, my study focused on knowledge and practice about rabies among person attending rabies clinic in Government Medical College Jalaun.

AIM and OBJECTIVES

1. To assess socio-demographic profile of the study participants.
2. To know the characteristics of animal bite and vaccination status among study participants.
3. To find out the status of knowledge and practice about Rabies in study participants.

Material and methods

A cross sectional study was conducted in Government Medical College, Jalaun, Uttar Pradesh, in between august and September 2023. All the study participants coming to rabies clinic who were bitten from animal or having experience of animal bite or for anti-rabies vaccination were included in study following inclusion and exclusion criteria.

Inclusion criteria;(1) those who gave verbal consent and willing to participate in study. (2) Consent of parent and guardian was taken those who were below 18 years and also they interviewed about knowledge and practice after animal bite.

Exclusion criteria ;(1) not willing to participate in study. (2). not giving verbal consent (3) severe condition

Selected participants were interviewed regarding socio demographic profile, type of bite and practice after animal bite by interns. Data was collected using a predesigned, pretested semi structured questionnaire at the time of first visit to the clinic and analyzed by using appropriate statistics test.

Table 1: Socio-demographic profile of study participants (n=110)

Characteristics	Frequency (%)
Age group (in years)	
0-10yr	22 (20%)
11-20yr	28 (25.45%)
21-49yr	50 (45.45%)
≥50	10 (9.09%)
Gender	
Male	68(61.82%)
Female	42(38.18%)

Education	
No formal education	26 (23.6%)
Less than primary/primary	24 (21.81%)
Secondary/higher secondary	54 (49.09%)
Graduate/post graduate	6 (5.45%)
Residence	
Rural	62(56.36%)
Urban	48(43.63%)
Residential distance in kilometres	
≤10 km	72(65.45%)
10-20 km	30 (27.27%)
≥20 km	8 (7.27%)

Table 2: Distribution of study participants according to animal bite (n=110)

Characteristics	Frequency (%)
Type of animal bite	
Dog	77 (70%)
Monkey	25 (22.75%)
Cat and others	8 (7.25%)
Type of animal	
Street animal	92 (83.64%)
Pet animal	18 (16.36%)
Pet animal vaccination status	
Vaccinated	83(75.5%)
Not vaccinated	27(24.5%)
Previous history of animal bite	
Yes	22 (20%)
No	88 (80%)
Vaccination of previous bite	
Complete vaccination	8 (36.36%)
Incomplete vaccination	9 (40.90%)
Not vaccinated	5(22.72%)

Whether the bite was provoked	
Yes No	82 (74.5%) 28 (25.5%)
Site of bite	
Lower limb Upper limb Face Back and neck	66(60%) 20(18.18%) 11 (10%) 13 (11.82%)

Table 3: Distribution of study participants according to their knowledge and practices following animal bite (n=110)

Knowledge and practices following animal bite	Frequency (%)
Toileting procedure after bite	
Running tape water only Wash With Water & Soap No treatment	56 (50.9%) 36 (32.72%) 18 (16.36%)
Local application over the wound	
Applied chilli Applied Lime & turmeric Applied Spirit or antiseptic Nothing application	4(3.63%) 6 (5.45%) 14 (12.7%) 82 (78.18%)
Place of first visit	
Quack Pharmacy Private practitioner Hospital	12 (10.9%) 5 (4.54%) 21 (19.09%) 72 (65.45%)
Gap between bite and visit to health facility	
On the day of bite 1-2 days 3 or more days	92 (83.63%) 10 (9.09%) 8 (7.27%)
Vaccination (tetanus and ARV)	

Taken	105 (95.45%)
Not taken	5 (4.54%)

Results

In our study, animal bite was more in male (61.82%) as compared to female (38.18%) and most of bite occurred in age group of 21-49 years (45.45%) as well as children and adolescents were also bitten by 45.45%, while only 9.09% were above 50 years of age. Most of the participants come from rural areas. 70% participants were bitten by dogs while 22.75% were bitten by monkey. Most of bite by animal was street animal (83.64%) while pet animal (16.36%). 74.5% were reported that bite was provoked and lower extremity was mostly bitten followed by upper extremities.

Regarding practice following bite, 50.9% were using running tap water and 32.72% were with soap with water while 16.36% doing no wound cleaning. 78.18% were using no medicine while some were using antiseptic cream, turmeric and chili on wound. 65.45% were going to hospitals while some were going to private practitioners and quacks. Most of the participants (83.63%) visit health facility on the day of bite while rest come within 3-4 days of bite. 95.5% were taken tetanus and ARV vaccination.

Discussion

In our study practice following animal bite was found good while similar study suggested that 85.9% of the professionals said they knew about rabies. The rest of the professionals were not sure if they knew about the virus. The good practice of the professionals in front of an animal bite case was estimated at 45.3 %.(10) another study having moderate knowledge regarding modes of transmission of rabies, fatality of rabies, symptoms of rabid animal, incubation period of rabies and PEP after animal bite, etc. Most of the participants (106) had moderate attitude towards completion of Inj. ARV schedule and the necessity to promote knowledge about rabies in the community. Majority of the participants (160) had high practice regarding first aid after animal bite and anti-rabies vaccination.(11) The study showed that majority of participants had positive attitude and adopted appropriate practices. However, there exists some knowledge gaps among participants regarding the treatment and preventive measures.(12), similar result suggested that lack of knowledge and attitude is suboptimal in study participant however practice regarding rabies vaccination is good in male and younger population.(13)

Conclusion and Recommendation

1. The present study showed that most of the cases were dog bites, mainly street dogs and some case of pets also, vaccination was inadequate. More than half of the participants got animal bite related information from health personnel (doctors, nurses, etc.) These findings indicate that proper medical care of animal bite cases and control of street dogs can reduce the incidence of rabies in a long run.
2. Health education campaigns are needed to make people aware of Rabies, vaccination of pets, and importance of seeking timely medical care after an animal bite can help in reducing the morbidity and mortality due to animal bites.
3. To raise awareness amongst people regarding rabies and guide them to take appropriate practice following animal bite and preventive measure.

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