Original Research Paper

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Community Medicine

KNOWLEDGE ATTITUDE AND PRACTICES ABOUT ANIMAL BITE AND RABIES AMONG VICTIMS ATTENDING TERTIARY CARE HOSPITAL IN GOVT THIRUVANNAMALAI MEDICAL COLLEGE, TAMILNADU

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ABSTRACT **Background:** Rabies is a deadly disease which spreads by the bite or scratch of an infected animal. The lack of awareness of this disease is one of the factors that leads to human mortality.**Objectives:**1. To assess the knowledge attitude and practice among victims attending a tertiary care hospital.2. To find the association of socio-demographic factors with the knowledge level. **Materials Methodology:** A hospital based cross sectional study was conducted at Govt.Thiruvannamalai Medical College among 230 animal bite victims attending Outpatient department during June to July 2018. Data was collected using pre-tested semi structured questionnaire. Simple random sampling was used. **Results:** Mean age group of study participants was 36.75±15.8, 59% were males and 41% were females. 72.1% of the participants had heard the word rabies. 75% among them had poor KAP score. KAP score was significantly associated with age, sex, education. **Conclusion:** There is a need for generating awareness of Rabies and animal bite.Their knowledge attitude and practices can be improved by providing proper health education.

KEYWORDS : awareness, knowledge, socio-demographic factors, rabies and animal bite

INTRODUCTION

Rabies is a highly endemic and fatal contributing to 35% deaths globally and 59% in India. It is caused by Rabies virus of lyssa virus genus and Rhabdoviridae family. Domestic dogs are the most common reservoir of the virus, with more than 99% of human deaths caused by dog-mediated rabies[1].It has existed for thousands of years, was first recognized in Egypt around 2300 BC and in ancient Greece, where it was well described by Aristotle.[2] 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.[3]WHO says currently, there are 25 million dogs in the country, the annual incident of dog bite is around 1.75 million [4]. In the present study, the knowledge, attitude and practices regarding prevention of this disease among patients attending outpatient Department were assessed.

MATERIALS AND METHODOLOGY

This study was conducted during June to July 2018 among victims of dog or animal bite attending the OPD services of tertiary hospital of Government Medical college Thiruvannamalai,Tamilnadu.

Sample Collection And Sample Size Determination

The study population composed of 230 victims of dog or animal bite selected using simple random sampling technique. The sample size was estimated using the formula,

$N=4\,pq/d^2$

p= 71% (KAP study among animal bites in Trichy ,2018 –National Journal of Reasearch in community medicine)[5]d= absloute precision 6%, q=(1-p)

N=4*71*29/36 = 228 (240 –approx)

Data Collection Process:

After obtaining ethical clearance, brief semi-structured questionnaire designed in local language was used to assess their knowledge about wound management,information about epidemiology of dog bite and local practices adopted, awareness about mode of treatment and use of health facilities.The data obtained was confidential.

Data Entry And Statistics:

Data from the questionnaires were entered in MS Excel and analysed in SPSS 18.0 version. Descriptive statistics and Chi-square test was used to compare proportions.A p value of <0.05 was considered statistically significant.

Ethical Considerations:

Ethical clearance and approval was obtained from the Head of the department Community Medicine. Each participant was informed about the purpose of the study and informed consent was obtained from each respondent. Participation in the study was voluntary and respondents were free to withdraw from the study at any time. Interviews were anonymous and data remained confidential throughout the study.

RESULTS:

Socio -Demographic Characteristics:

A total of 230 respondents were responded which yields a response rate 96%. More than half 135(59%) of study subjects were males. Regarding age group, 119(78.1%) of the study participants were between 31-50 years old. The majority of respondents 210(93.1%) were educated and belonged to lower middle-class family (Table 1). The knowledge related to rabies majority of respondents were aware of wound toileting 200(86.9%) followed by the mode of spread 195(84.7%) and also knewed that Anti-Rabies vaccine given free of cost at the hospital (Table 2). The attitude about awareness of mode of treatment was vaccination 215(93.4%), most of them preferred Government hospitals as choice of treatment facility. Only 175(76%) of them had the awareness of starting anti-rabies vaccine after repeat dog bite. The preventive practices of animal bites like washing the wound immediately 170(73.9%), willingness to undergo treatment to doctor was 200(86.9%) and 210(91.3%) of them was to complete course of vaccination (Table 3 &4).

Twenty-five questions were asked for each respondent regarding cause, sources and mode of transmissions, clinical singes and prevention practices and treatment measures of rabies. Which was resulted in a response of either, choose the correct answer (had got one mark) or wrong answer (had got zero mark) for each question. The number of questions for which the respondent gave correct responses was counted and scored. This score was then pooled together and the mean score was computed to determine the overall KAP of respondents, Respondents who score greater than or equal to the mean value (Mean=6.41, SD=1.56) grouped to good KAP and less than the mean value Poor KAP level.

The data show that about 154(66.9%) of the study participants were found to have good KAP about rabies and 76(33%) were found to have poor KAP level. The KAP score was higher among males and educated participants and found to be statistically significant (Table 5).

Knowledge Of Study Participants:
Almost all of the participants 224(97.3%) have heard of Rabies disease, of those 166(72.1%) knewed that rabies is caused by a virus. Regarding the fatality of disease 171(74.3%) participants had a moderate knowledge. Majority of them 210(91.3%) were aware that vaccine is given free of cost in the hospital. (Table 2).

Practices And Attitudes To Prevent Rabies After A Suspected Animal Bite:
Regarding the mode of treatment majority 215(93.4%) of them undergo vaccination among them 175(76%) restart the vaccination after the repeat animal bite. Only 170(73.9%) of them had the practice of washing the wound with soap and water. Majority of them 200(86.9%) are willing to go to doctor for the treatment and 210(91.3%) of them try to complete the vaccination schedule. (Table 2).

Factors Associated With KAP:
Association between independent variables and KAP scores on rabies was calculated using Pearson's Chi square (Table 5).There was significantly association between KAP scores and sex (x^2=9.1537 ,p<0.05)The good scores were higher in males (92.5%)than females (78.9%).Educational status was significantly associated with KAP scores (x^2=69.8, p<0.05).

DISCUSSIONS
The findings of this study indicated that about (66.9%) of the respondents had good level of knowledge, attitude and practices about rabies.In contrast to this finding higher knowledge and higher scores in practices were reported from Gino, C et al study in 2009 Srilanka[6]. This difference may be due to lack of health awareness programs about rabies.

In this present study 84.7% respondents knew the correct mode of transmission which is consistent with results of Abraham A study conducted in Ethiopia, the result found in this study which could be due to better source of information.[7][8] This KAP analysis revealed that 74.3% of respondents recognize rabies as danger and a fatal disease but the KAP level is higher (94.1%) in Eidson, M study done in 2004.[9]The good scores were higher in males (92.5%) this could due to their increased activity in their daily life compared to females and also the higher levels of educational status with high educational scores.The better explanation could be educated person would have better information to understand the disease.This result is supported by results of studies conducted in Flagstaff.[10]

This study found that ,73% of the participants knew that washing the wound immediately after the animal bite which is lower than the study conducted in Bhutan.[11]This could due to their belief in their native treatment like application of herbs, turmeric etc.,Regarding treatment seeking behaviour ,majority (84.7%),of them sought initial medical care from the health centres which is higher than study conducted in Srilanka(Gino et al., 2009)[6].

Table 1: Socio Demographic Characteristics

Variables (N=230)	Types	No (%)
Gender	Male	135(59%)
	Female	95(41%)
Age	18-30 years	78(33.9%)
	31-50 years	119(78.1%)
	>51 years	33(14.4%)
Educational status	Literate	215(93.4%)
	Illiterate	15(6.6%)
occupation	Employed	210(93.1%)
	Unemployed	20(6.9%)
Socioeconomic status	Upper	15(6.6%)
	Upper middle	44(19.2%)
	Lower middle	93(40.6%)
	Upper lower	43(18.8%)
	Lower	35(15.2%)

Table 2: Knowledge Of Study Participants

Characteristics (N=230)	Yes (%)	No(%)
Causative Agent Of Rabies	166(72.1%)	64(27.8%)
Heard of the disease	224(97.3%)	6(0.2%)
Wound toileting	200(86.9%)	30(13%)
Mode of spread	195(84.7%)	35(15.2%)
Aware about Anti Rabies vaccine	170(73.9%)	60(26%)
Site of rabies injection	154(66.9%)	76(33%)
Anti-Rabies vaccine given free of cost at GH	210(91.3%)	20(0.8%)
Rabies is fatal	171(74.3%)	59(25.6%)

Table 3: Attitude Of Study Participants

Characteristics	Yes (%)	No(%)
Mode of treatment Vaccination	215(93.4%)	15(6.5%)
home remedies	25(10.8%)	205(89.1%)
neglected	30(13%)	200(86.9%)
Choice of treatment facility Government	195(84.7%)	35(15.2%)
Private	125(54.3%)	105(45.6%)
Repeat dog bite start arv again	175(76%)	55(23.9%)
ignore the bite	30(13%)	200(86.9%)

Table 4: Practices Of Study Participants

Characteristics	Yes(%)	No(%)
Preventive measures to be taken		
Wash the wounds	170(73.9%)	60(26%)
Apply turmeric	50(21.7%)	180(78.2%)
Willing to undergo treatment of animal bites		
Doctor	200(86.9%)	30(13%)
No treatment	20(0.8%)	210(91.3%)
Pet dog vaccinated	120(52,1%)	110(47.8%)
Willing to complete vaccination	210(91.3%)	20(0.8%)

Table 5: Relationship Between KAP Scores About Rabies And Socio Demographic Profiles

Variables	Good	Poor	X^2	P value
Gender-			9.1537	0.002
Male(135)	125	10		
Female(95)	75	20		
Age			1.427	0.232
18-30 years	100	10		
≥31 years	103	17		
Educational status			69.8	<0.0001
Literate	195	10		
Illiterate	10	15		

CONCLUSION AND RECOMMENDATIONS:
In conclusion this study has shown that community level KAP about rabies is good in the study area, despite this fact ,still there are some gaps in the community regarding the modes of rabies transmission ,prevention methods after animal bite ,attitude towards anti-rabies vaccine. Gender and educational status were found to be significantly associated with KAP on rabies. Therefore based on the above conclusion the following recommendations are suggested.

- Creating awareness in general community and specially females to seek (PEP)Post-exposure prophylaxis [12].
- It should be noted that the immediate washing of the wound(s) is a priority.
- Train doctors in appropriate animal bite management.
- Vaccination for high-risk individuals, surveillance of human cases, post-exposure prophylaxis following animal bites, vaccination and/or culling of the canine population and other animal reservoirs.
- More epidemiological studies and implementation research should be conducted with a wider set of actions.

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