



A Cross-Sectional Study of Awareness Regarding Dog Bite and Its Management in Rural Practice Area of Rhtc, Sundarpada, Bhubaneswar

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ABSTRACT

Background: Rabies is an enzootic and epizootic disease that affects people all over the world. It is estimated that the number of rabies deaths in India may be ten times higher than those reported. There are numerous myths and false beliefs surrounding dog bites. The developing world accounts for 99 percent of all rabies-related human deaths. The current study was carried out to investigate the level of awareness and perception of dog bite cases in rural Bhubaneswar. 1) Determine people's knowledge about dog bites. 2) To assess people's knowledge of rabies and anti-rabies vaccination. 3) To investigate people's behavioural responses to dog bites.

Methods: A cross-sectional study was carried out in the rural field practise area of RHTC, Sundarpada of Hitech Medical College and Hospital, Bhubaneswar. For one month, a pre-tested, semi-structured questionnaire was used to conduct the study, and people attending RHTC OPD were included. The study included all people over the age of 18 years old. Prior to the study's execution, informed consent was obtained.

Results: Of the 144 participants in the study, 75 (52 percent) were females, while the remaining 48 percent were males. Out of these 111 (77 percent), 52 (46.8 percent) were aware that dog bites cause disease, and 52 (46.8 percent) were aware that dog bites cause rabies. Among the participants, 138 (95.8 percent) were aware that vaccines were available, and 125 (90.5 percent) were aware that vaccines were available at the Government

Hospital. According to the study, 88% of dog bite victims received treatment.

Conclusions: There is a lack of awareness about dog bites and how to treat them among the rural population.

Keywords: Dog bite, Rabies, Anti-rabies vaccine

I. INTRODUCTION

Human rabies remains an endemic disease in India. 1 Annual mortality over 30000 given by national authorities may not be a complete picture because India has reported the same figure every year since 1985. The number of rabies-related deaths is expected to be ten times higher than those reported. Every year, between 1.1 and 1.5 million patients are treated with post-exposure prophylaxis. In India, more than 95 percent of dog bites occur each year, despite the fact that there are 2 million bites per year. 2 People have a basic understanding of anti-rabies treatment, which involves receiving 14 injections after a dog bite, according to an old notion, but they are unaware of the diseases that can result if dog bites are not properly managed. 2

Rabies, a disease that dates back to the dawn of civilization, is still the most feared of all communicable diseases. Despite the availability of cutting-edge instruments that provide near-100 percent protection against rabies, India is the world's leading contributor to rabies fatalities. 3 There are a lot of misconceptions and misunderstandings concerning wound care. These include the administration of oils, herbs, and red chilies to a rabid animal's wound. More reliance on



unproven traditional treatments and failure to properly clean wounds out of fear of infection. 4

The purpose of this study was to find out how much people in rural Maharashtra knew about dog bites and how they felt about it.

II. METHODS

Study area

A cross-sectional study conducted in the rural field practise area of RHTC, Sundarpada of Hitech Medical College and Hospital, Bhubaneswar

Study period

Study was conducted for the period of one month i.e. 1st November 2021 to 30th November 2021 and

people attending RHTC OPD were included in the study.

Study subjects

The study enlisted the participation of all people over the age of 18. Prior to the study's execution, informed consent was obtained. The study involved a total of 144 participants.

A pre-tested, semi-structured questionnaire was used to perform the research. All study participants were interviewed by the investigators themselves.

III. RESULTS

The study involved a total of 144 participants. There were 75 females (52%) and the remainder were males (48 percent).

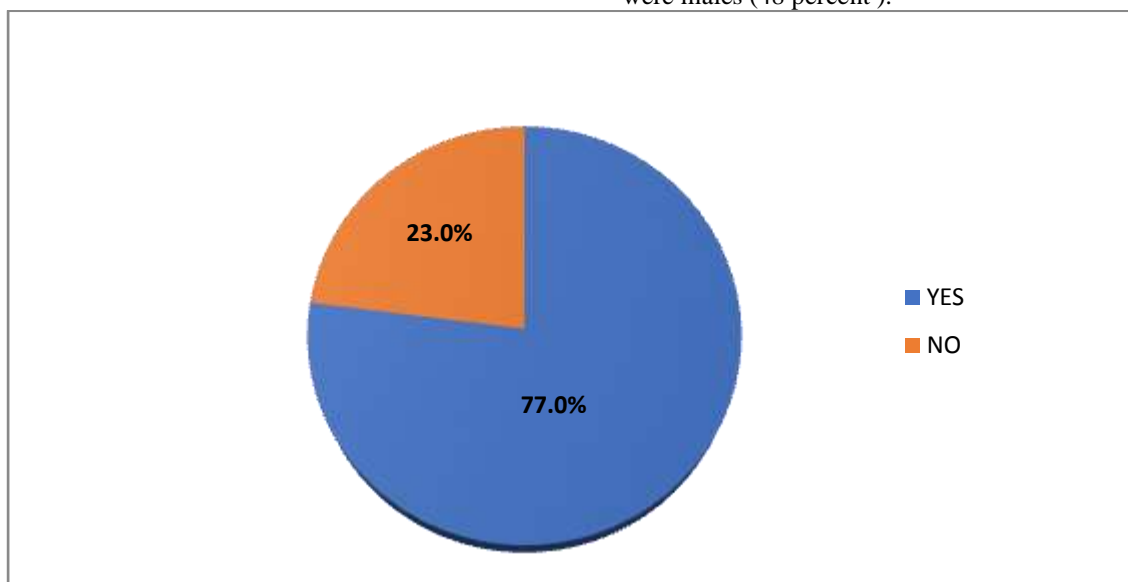


Figure 1: Awareness of disease caused by dog bite.

Out of 144 survey participants, 111 (77%) were aware that dog bites cause sickness, while 33 (23%) were unaware.

Table 1: Showing the knowledge about the disease caused by dog bite (N=111).

DISEASE	FREQUENCY (%)
Rabies	52 (46.8%)
Don't Know	59 (53.2%)
TOTAL	111 (100%)

Out of 111 people who knew that dog bites cause rabies, 52 (46.8%) knew that dog bites cause the disease.

Table 2: Showing the knowledge about symptoms of rabies among the study population (n=52).

SYMPTOMS	FREQUENCY (%)
Hydrophobia	16 (14.4%)
Madness	24 (21.6%)
Bleeding	10 (9%)
Fever	2 (1.8%)

This table shows the knowledge about the symptoms of rabies; 24 (21.6%) told about madness followed by hydrophobia 16 (14.4%), bleeding 10 (9%), fever 2 (1.8%).



Table 3: Showing awareness about the management of dog bite case among the study population.

AWARENESS ABOUT TAKING CARE OF WOUND	FREQUENCY (%)
Applying lime	24 (16.6%)
Apply soil	04 (2.7%)
Applying antiseptic	60 (41.6%)
Tie the wound	70 (48.6%)
Clean with water	79 (54.8%)
Clean with water and soap	64 (44.4%)

The table shows awareness about the care taking of wound shows cleaning with water 79 (54.8%), cleaning with water and soap 64 (44.4%).

Table 4: Showing awareness about anti-rabies vaccine among the study population.

Awareness about anti-rabies vaccine	
Awareness about vaccine	
Yes	138 (95.8%)
No	06 (4.2%)
Awareness about availability of vaccine (N=138)	
Government	125 (90.5%)
Private	13 (9.4%)
Awareness about number of doses of vaccines to be taken (N=144)	
2	2 (1.3%)
3	14 (9.7%)
5	28 (19.4%)
7	22 (15.2%)
10	13 (9.02%)
14	46 (31.9%)
21	17 (4.8%)
Don't Know	12 (8.3%)
Awareness about site of administration of vaccine (N=138)	
Abdomen	91 (65.9%)
Buttock	22 (15.9%)
Shoulder	18 (13.04%)
Thigh	02 (1.4%)
Don't know	05 (3.6%)

138 (95.8%) were aware that a dog bite vaccine is available; of those 138, 125 (90.5%) stated it is available in government hospitals, while 13 (9.4%) indicated it is available in private hospitals. 14 injections 46 (31.9 percent) received the most votes, followed by 7 injections 22 (15.2 percent), and 5 injections 28. (19.4 percent). Similarly, abdomen 91 (65.9%), buttocks 22 (15.9%), shoulder 18 (13.04 percent), thigh 2 (1.4 percent), and don't know 5 were the top choices for vaccine administration sites (3.6 percent).

IV. DISCUSSION

People who visited the RHTC OPD were involved in the study, which lasted one month, from June 1st to June 30th, 2013. The study involved a total of 144 participants. Females made

up 75 percent of the group, while men made up the rest (48 percent).

In the current survey, 111 people (77 percent) knew that dog bites cause disease, however only 52 people (46.8%) knew that dog bites induce rabies.

According to a WHO collaborative study by Ichhpujani RL et al.3, 68.7% of people have heard of rabies and 60.7 percent are aware that dog bites cause rabies.

The awareness of wound treatment following a dog bite was investigated in this study. It was discovered that wounds should be washed with water 79 (54.8 percent), tied 70 (48.6 percent), cleaned with soap and water 64 (44.4 percent), antiseptics 60 (41.6 percent), and lime 24 percent (16.6 percent). While only 31.9 percent of participants in an Ichhpujani et al.3 study believed



that bathing wounds with soap and water, and applying lime 6.8%,

Among the participants, 138 (95.8%) were aware of the dog bite vaccination's availability; of those 138, 125 (90.5%) indicated the vaccine is accessible in government hospitals, while 13 (9.4%) said it is available in private hospitals. 14 injections 46 (31.9 percent) received the most votes, followed by 7 injections 22 (15.2 percent), and 5 injections 28. (19.4 percent).

Similarly, abdomen 91 (65.9%), buttocks 22 (15.9%), shoulder 18 (13.04 percent), thigh 2 (1.4 percent), and don't know 5 were the top choices for vaccine administration sites (3.6 percent).

In a study conducted by Singh US and Choudhary SK², 86.6 percent of participants were aware of the anti-rabies vaccine.²

According to a study conducted by Singh US and Choudhary SK², 79 percent of people said they had 14 injections, with the site of administration being 5.7 percent over the abdomen. According to Agarwal et al.⁵, 92 percent of people were aware that injections are provided at government hospitals.

In our study, 88 percent of dog bite victims received treatment. According to a study conducted by Rumana R et al.⁶, 89 percent of dog bite patients received treatment.

V. CONCLUSION

There is a dearth of awareness and knowledge about dog bites and how to deal with them: Dog bites cause sickness in 77 percent of people, while only 46.8% knew that dog bites cause rabies in 46.8% of people. 44.4 percent of participants knew that a dog bite wound should be cleansed with soap and water, while 95.8% knew that a dog bite vaccine was available. Dog bite victims were treated in 88 percent of cases.

Recommendations

There are several misconceptions and a lack of awareness about how to handle dog bite incidents. Because rabies is a 100 percent avoidable disease, health education activities for the rural community should be undertaken to raise awareness about how to handle dog bites in order to minimise rabies-related deaths.

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