

Original research article

A study on knowledge and perception of animal bite cases about rabies

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Abstract

Background: Rabies is an acute highly fatal communicable disease. Most of the death occurs due to lack of awareness about the various aspects of animal bite & rabies occurrence.

Objectives of the study:

1. To assess the knowledge & perception of animal bite cases about rabies.
2. To know the various epidemiological factors among the animal bite cases.

Study Design: Cross-sectional study.

Place of study: ARV Clinic of PRM Medical College, Baripada, Mayurbhanj, Odisha.

Period of Study: Nov. 2022 to Jan. 2023.

Study Subject: All the adult new animal bite cases coming to the ARV Clinic of PRM MCH during the study period.

Study Instrument: A pre-designed pretested questionnaires.

Data analysis: It was analyzed with MS Excel.

Result: Out of 155 study subjects, 82% had correct knowledge regarding the disease occurrence. Most of the study subject 89% had knowledge about the animals bite causes rabies. 85% had correctly answered regarding the consequences of the animal bite. Only 20% had proper knowledge about the treatment of rabies when the disease occurs. 70% of the study subjects answered correctly that the disease rabies is not curable. Majority of the participants (89%) had knowledge about the importance of wound washing and it should be done immediately after the animal bite.

Keywords : Knowledge, animal bite cases, rabies, wound washing, vaccines.

Introduction

Rabies ranks amongst ten most infectious disease worldwide. It causes about 30,000 human deaths annually in India^[1]. In most endemic countries stray dogs are the main source of Rabies infection in humans. Despite of tremendous progress in the field of preventive medicine and vaccinology, rabies is widely prevalent in India. Human rabies is mainly caused by dog bites. The stray dogs mainly transmit rabies in India and annual incidence of bite in India is 1.7% ^[2]. Lack of awareness, wrong beliefs and practices the number of death due to rabies are more even though vaccines & immunoglobulin are available to prevent death due to rabies ^[3]. In this background the present study was conducted with the following objectives.

Objectives

1. To assess the knowledge & perception of animal bite cases about rabies.
2. To know the various epidemiological factors among the animal bite cases.

Material and Methods

It was a hospital based cross-sectional study conducted in the ARV Clinic of PRM Medical College, Baripada, Mayurbhanj, Odisha. The study period was from Nov. 2022 to Jan.2023. The study subjects were the adult new animal bite cases coming to the ARV Clinic of PRM MCH during the study period. After explaining the objectives of the study the verbal consent was taken from the study participants. The data was collected in a pre-designed pretested questionnaires. It was analyzed with MS Excel.

Observation

A total of 155 adult animal bite cases attending the ARV clinic were participated in this study. Out of 155 participants maximum number 65 (41.93%) were in the age group 30-40 yrs followed by 45 (29.03%) belong to 40-50 yrs of age. Very few 5 (9.68) were above 60 yrs of age. Among the study subjects 103 (66.45%) were male & 52 (33.65%) were female. Majority of animal bite cases were from semiurban area & 35 (22.58%) were from urban area.

Regarding the animal bites, most of the bites 115 (74.19%) were dog bites followed by cat 26 (16.77%). Among the biting animal maximum number of bites 120 (77.42%) were by stray animal. About the vaccination status of the pet animal, only 3 (20%) were vaccinated & 12 (80%) were not vaccinated. Majority of animal bites 133 (85.81%) were unprovoked bite & 22 (14.19%) were provoked bite. Lower limb 75 (83.87%) was the common site of bite, upper limb in 58 (37.42%) cases & 9 (5.8%) case were in head & neck site.

More number of animal bite cases 96 (61.93%) were having Cat-II bite & 39 (25.16%) were Cat-III bite cases. Only 7 (4.5%) had a history of previous animal bite. Among the past history of animal bite cases all 7 (100%) were vaccinated completely.

From the Table-2, it was observed that 127 (81.93%) had correct knowledge regarding the disease occurrence. Most of the study subjects 138 (89.03%) had knowledge about the animal bite causes rabies. 132 (85.16%) correctly answered regarding the consequence of the animal bite. Only 31 (20%) had proper knowledge about the treatment of rabies when the disease occurs. 108 (69.67%) answered correctly that the disease rabies is not curable. It was known to all the participants about the importance of wound washing immediately just after the animal bite.

Table 1: Epidemiological Characteristics of study participants

Characteristics	Variables	No & (%)
Age Group (Yrs)	20 - 30	25 (16.13)
	30 - 40	65 (41.93)
	40 - 50	45 (29.03)
	50 - 60	15 (9.68)
	> 60	5 (3.23)
Sex	Male	103 (66.45)
	Female	52 (33.55)
Residence	Urban	35 (22.58)
	Semi Urban	90 (58.06)
	Rural	30 (19.35)
Animal involved in Bite	Dog	115 (74.19)
	Cat	26 (16.77)
	Others	14 (9.03)
Type of Animal	Pet	15 (9.68)
	Semi Pet	30 (19.35)
	Stray	120 (77.42)
Pet Animal Vaccination Status	Vaccinated	3 (20)
	Not Vaccinated	12 (80)
Type of Animal Bite	Provoked	22 (14.19)
	Un Provoked	133 (85.81)
Site of Bite	Upper Limb	58 (37.42)
	Lower Limb	75 (83.87)
	Thorax	13 (8.38)
	Head & Neck	9 (5.80)
Catagory of Bite	Cat I	20 (12.9)
	Cat II	96 (61.93)
	Cat III	39 (25.16)
History of Previous Bite	Yes	7 (4.5)
	No	148 (95.5)
Vaccination of Previous Bite	Complete Vaccination	7 (100)
	Incpmplite Vaccination	0
	Not Vaccinated	0

Table 2: Knowledge and Perception of Animal Bite Cases about rabies

Knowledge and Perception	Response	No (%)
Do you know about the occurrence of the disease	Correct Answer	127 (81.93)
	Incorrect Answer	28 (18.06)
Do you know which animal bite causes rabies	Correct Answer	138 (89.03)
	Incorrect Answer	17 (10.96)
Do you know about the consequence of animal bite	Correct Answer	132 (85.16)
	Incorrect Answer	23 (14.83)

Knowledge regarding treatment of rabies	Correct Answer	31 (20)
	Incorrect Answer	124 (80)
Once rabies occurs, Is it curable	Correct Answer	108 (69.67)
	Incorrect Answer	47 (30.32)
Any idea about wound washing	Correct Answer	155 (100)
	Incorrect Answer	0 (0)
Local application of anything over the wound	Correct Answer	82 (52.90)
	Incorrect Answer	73 (47.10)
Interval Between Biting Time & First Aid	Correct Answer	150 (96.77)
	Incorrect Answer	5 (3.23)
Knowledge regarding availability of free vaccine	Correct Answer	148 (95.48)
	Incorrect Answer	7 (4.52)

Discussion

In the present study 82% of the animal bite cases had knowledge about the occurrence of the disease rabies. A similar finding was observed in a study conducted by Singh US, Choudhury SK in Gujrat ^[4]. Almost all the animal bite cases 98%, had knowledge of dog bite causes rabies. This finding was similar to the study findings of Kakrani VA *et al.* ^[5] 89% had knowledge about wound washing plays an important role in the prevention of disease in comparison to a study conducted by P. Lai *et al* where the practice of wound washing was 43.3% only.⁶ In this study 82% had knowledge regarding the application of povidone iodine in the wound ^[7, 8]. 95% had correct knowledge regarding the free availability of the vaccine, which was the findings similar to Bhalla *et al.* ^[9]. The disease rabies is not curable was known to 70% of the study subjects, which was similar to the findings of the study conducted by Mohanty M *et al.* ^[10].

Conclusion

The knowledge and perception regarding various aspects of rabies among the animal bite cases was not satisfactory. Even though Government has implemented the National Rabies Control Program, strengthening of IEC activities is required to enhance the knowledge of the people in the community about rabies & its prevention.

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Conflict of interest: None

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