RESEARCH ARTICLE

KNOWLEDGE, AWARENESS AND PERCEPTION OF MEDICAL COLLEGE STUDENTS ON RABIES AND ITS PREVENTION

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ABSTRACT
Background: Rabies continues to be major public health problem in India in-spite of the wide availability of anti rabies vaccine. In India 20,000 dies of rabies annually. The large number of deaths due to rabies can be attributed to people not aware of the various aspects of the disease and its prevention.
Aims & Objectives: To assess the knowledge and perception among first year medical college students.
Materials and Methods: This study was a descriptive study conducted at Hassan Institute of Medical Sciences, Hassan using a pretested questionnaire.
Results: A total of 90 first year medical college students participated in this study. 80 (88.8%) knew that rabies is caused by virus. 38 (42.2%) knew annual mortality due to rabies in India. 88 (97.7%) knew that rabies is transmitted through bites of an animal. 54 (60%) students knew that rabies is 100% fatal. 44 (48%) students knew the symptoms of rabies. 60 (66.6%) felt that the bites wounds should be washed. 55 (61.1%) knew that an antiseptic to be applied to the wound. 40 (44.4%) students told animal bite wound should not be sutured or bandaged. 15 (16.6%) students knew that 5 doses of vaccine should be taken when bitten by animal. Only 2 (2.2%) were aware of RIGs.
Conclusion: Majority of the MBBS students of the first year knew that rabies is caused by virus which is transmitted through dog bite. More than 50% of the students knew about symptoms and post exposure measures correctly. Students had poor knowledge about the other modes of transmission, animal that can transmit rabies, Rabies immunoglobulin and number of vaccine doses. The knowledge regarding rabies prevention among male and female students is same.
Key Words: Rabies; Rabies Immunoglobulin; Anti Rabies Vaccine; Knowledge; Awareness; Perception; Medical College Students

Introduction

Rabies is an important public health problem in India. Maximum number of deaths due to human rabies is reported from our country. It is estimated that in India 17.4 million animal bites and 20,000 deaths due to rabies occurs annually. 955 of global rabies deaths are because of dog bite.[1,2] Rabies is a 100% fatal disease which can be prevented by timely and appropriate use of Post Exposure Prophylaxis (PEP) using wound care, Anti Rabies Vaccines and Rabies Immunoglobulin (RIG). Lack of knowledge among health providers on basic principles of animal bite management can have detrimental effect on rabies prevention. The use of RIG is only 2%.[3] Health personnel in our country have an important role in preventing mortality due to rabies. The present study was undertaken with an objective to assess knowledge regarding rabies and its prevention among first year medical college students.

Materials and Methods

This study was conducted at Hassan Institute of Medical Sciences (HIMS), Hassan. This was a descriptive study in which all the first year medical students of 2012-13 batch were approached with a pre-designed and pre-tested questionnaire reading various aspects of rabies and its prevention. Data was collected from 90 first year medical students who consented to participate in the present study. The data was analyzed using SPSS Ver 13.0 software.

Results

Out of 99 first year medical students of HIMS, Hassan, 90 participated in the study. Of the 90 students 80 (88.8%) knew that rabies is caused by virus, the rest were of the opinion that rabies is caused by a bacteria. 38 (42.2%) knew that 20,000 people die annually due to rabies in India. 88 (97.7%) knew that rabies is transmitted through the bite of an animal and only 3 (3.33%) knew that it could be transmitted by scratch but only one knew that it could be transmitted by licks also (Table 1). All the students knew that rabies is transmitted by dogs. Some of the students knew that rabies is transmitted by other animals like cat, monkey, pig, horse and wild animals (Table 2). 54 (60%) students that once a person gets rabies it is 100% fatal. 44 (48%) students knew that hydrophobia and aerophobia are the symptoms of rabies in the human beings, 20 (22.2%) students thought that

person with rabies will behave like animal. 15 (16.6%) students felt that the person with rabies becomes mad (Table 3). 60 (66.66%) felt that animal bite wound should be washed with soap and water. 55 (61.1%) knew that an antiseptic has to be applied to the animal bite wound. 77 (77.77%) students are of opinion that animal bite victim should consult doctor immediately. 40(44.4%) students felt that animal bite wound should not be bandaged or sutured. 15 (16.6%) students knew that 5 doses of vaccine should be taken when bitten by animal (Table 4). Only 2 (2.2%) were aware of RIG. 40 (44.4%) students felt that animal should be vaccinated to prevent rabies occurring in the community.

Table-1: Sex wise distribution of knowledge regarding causative agent, annual mortality and modes of transmission

Details		Male (N = 50)	Female (N = 40)	Total (N = 90)
Correct knowledge of the causative agent		44 (88)	36 (90)	80 (88.8)
Knowledge of annual mortality		22 (44)	16 (40)	38 (42.2)
Knowledge of Modes of Transmission	Bite	50 (100)	38 (95)	88 (97.7)
	Scratch	02 (4)	01 (2.5)	03 (3.33)
	Licks	01 (2)	00 (0)	01 (1.11)

Note: Figure in the parenthesis indicates percentage.

Table-2: Sex wise distribution of knowledge regarding reservoir of rabies infection

Reservoir of Infection	Male (N = 50)	Female (N = 40)	Total (N = 90)
Dog	50 (100)	40 (100)	90 (100)
Cat	20 (40)	10 (25)	30 (33.3)
Monkey	08 (16)	04 (10)	12 (13.3)
Wild animals	10 (20)	05 (12.5)	15 (16.6)
Rodents	04 (8)	02 (5)	06 (6.6)

Note: Figure in the parenthesis indicates percentage.

Table-3: Sex wise distribution of knowledge regarding Symptoms of rabies in human beings

Symptoms of Rabies in human beings	Male (N = 50)	Female (N = 40)	Total (N = 90)
Hydrophobia	24 (48)	20 (50)	44 (48.8)
Aerophobia	28 (56)	16 (40)	44 (48.8)
Behave like animal	08 (16)	12 (30)	20 (22.2)
Mad	10 (20)	05 (12.5)	15 (16.6)

Note: Figure in the parenthesis indicates percentage.

Table-4: Sex wise distribution of knowledge of Post Exposure Measures

Knowledge of Post Exposure Measures	Male (N = 50)	Female (N = 40)	Total (N = 90)
Wash with soap and water	35 (70)	25 (62.5)	60 (66.66)
Apply antiseptics	28 (56)	27 (67.5)	55 (61.1)
Should not bandaged or sutured	22 (44)	18 (45)	40 (44.4)
Consult doctor immediately	40 (80)	30 (75)	70 (77.7)
Number of Vaccine doses	11 (22)	04 (10)	15 (16.6)

Note: Figure in the parenthesis indicates percentage.

Discussion

Correct knowledge of the causative agent was in 80 (88%) of the students, 44 (88%) of 50 boys and 36 (90%) out 40 girls and there was no statistical significant difference between male and female students which is comparable with the Vinay M and et al.[4] Regarding the annual mortality in India due to rabies 38 (42.2%) had correct knowledge and there was no statistical significant difference between male and female students (5). All boys and 38 (95%) of girls knew that rabies is transmitted by bite of an animal and 2 (4%) of 50 boys and 1 (2.5%) of 40 girls knew that it could be transmitted by scratches and 1 (2%) of boys and none of the girls knew that it is transmitted by animal licks also.

All the respondents knew that rabies is transmitted by dogs and it is comparable with other studies (5, 6). 4 (8%) of 50 boys and 2 (5%) of 40 girls are of opinion that rabies is transmitted by rodents, which is not true in our country. There was no statistical significant difference between male and female students. 24 (48%) of 50 boys and 20 (50%) of 40 girls knew that symptoms of rabies is hydrophobia and aerophobia.

Regarding the immediate measures that should be done to the bite wound, 35 (70%) of boys and 25 (62.5%) of girls felt that it should be washed with soap and water. Regarding post exposure measures there was no statistical significant difference between knowledge of male and female students which is similar to other studies.[5-7]

Conclusion

Majority of the MBBS students of the first year knew that rabies is caused by virus which is transmitted through dog bite. More than 50% of the students knew about symptoms and post exposure measures correctly. Students had poor knowledge about the other modes of transmission, animal that can transmit rabies, Rabies immunoglobulin and number of vaccine doses. The knowledge regarding rabies prevention among male and female students is same.

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