Title: PERCEPTION OF MALE HEALTH WORKERS REGARDING RABIES AND ITS PREVENTION

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Keywords Health worker Male, knowledge, perception

Abstract A study was conducted to access the knowledge and perception of Health care workers on animal bite and its management to prevent rabies. It was a cross sectional study. A total of 116 male workers were interviewed who came to Community Medicine department for training regarding knowledge on Rabies, wound management, rabies vaccine and Immunoglobulin.

Original Article

PERCEPTION OF MALE HEALTH WORKERS REGARDING RABIES AND ITS PREVENTION

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ABSTRACT

The study was conducted to assess the knowledge and perception of Health care workers on animal bite and its management to prevent rabies. It was a cross sectional study. A total of 116 male health workers were interviewed who came to Community Medicine department for training regarding knowledge on Rabies, wound management, rabies vaccine and immunoglobulin. All have knowledge on rabies but 17% still think karela leaf paste or any irritants must be applied immediately on wound caused by animal/dog bite. Not a single respondent knew rabies immunoglobulin. 10% of HWM still believe ARV is given around umbilicus. Though 86% knew that dog bite injection should be completed in full course, only 40% opined alcohol is avoided during treatment.

Key words: Health worker male, knowledge, perception

INTRODUCTION

Rabies is a major public health problem in India. Every year,55,000 deaths are estimated to occur in the world[1]. In India alone, 20,000 deaths occur, thus contributing to 36.4% of the rabies deaths in the world[2]. The majority of these deaths occur in rural areas. Around 17.4 million of animal bite cases occur in India annually. The animal bite incidence rate is 1.74%[3,4]. Lack of awareness about the need for post-exposure prophylaxis among the common man is cited to be one of the important factors contributing to the high mortality in India[5,6].

People in the community, especially in rural areas have more faith on Health workers (male and female), Anganwadi workers and ASHA, to whom they approach following animal bite/exposure. These health worker males are an important source of first level of contact for the wound management for persons bitten by animals in rural areas. Hence the following study was undertaken with the objective to assess the knowledge and perception of health worker males regarding Rabies and its prevention.

METHODOLOGY

This is a cross sectional study conducted over a period of one year on Health worker males who came to Community Medicine Department, MKCG medical college to undertake training on various Health Programme during the month of November and December of 2014 and 2015. All health workers male were from various PHCs of Ganjam and Gajapati districts. A pretested questionnaire was prepared containing questions on awareness, knowledge, practices and treatment modalities of Rabies and its prevention and given to the HWM, then the results were analyzed using proportion. (percentage). Ethical clearance was taken from the Ethical committee and informed verbal consent was taken from the partcipants.

RESULTS

A total of 116 health worker male were included in the study, out of which 58 were from Ganjam district and another 58 from Gajapati district. All the study participants had heard about rabies and majority (74%) knew that rabies is a fatal disease which can't be cured. Though rabies is a fatal disease still 26 % think it is a mild disease like cough and cold. All the study participants knew more or less about Anti rabies vaccine but no one had any idea regarding rabies immunoglobulin. 35 % of health workers had told rabies vaccine is given over gluteal area, it may be due to habit of

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giving injection in gluteal area because of the larger surface area so that it's less painful.

Table I:
Knowledge of Health worker male about wound treatment (n=116)

Knowledge of HWM	Number(%)*
Washing wound with soap and water	104 (89.6%)
Washing with water then apply karela leaf paste	18 (15.5%)
Should not wash but apply turmeric paste or any Irritant on wound mmediately	2 (1.7%)
Give Tetanus toxoid immediately	(28.3%)

*Multiple responses

Regarding the knowledge of HWM about treatment of animal bites, 89.6% knew wound should be washed with soap and water. 15.5% opined after wound wash, apply some karela leaf paste. 1.7% have still an idea not to wash the wound and apply turmeric or any irritants. Knowledge of giving tetanus injection in animal/dog bite is only 28.3%. They think that tetanus can occur only by thorn prick or rusted iron nail pierce or any road traffic accident.

Table II:
Knowledge or perception of HWM on Rabies (n=116)

Perception on Rabies	Number (%)
Do you know the term Rabies or have you heard of Rabies	116 (100%)
Rabies is a fatal disease	86 (74.2%)
Rat bite can cause Rabies	6 (5.2%)
Rabies injection is mandatory in all animal bite	112 (96.5%)

Though 96.5 % of study subjects knew rabies injection is mandatory in all animal bites, 86.2 % told vaccine should be completed in full course. 8.6% of HWM have a wrong idea of one or two antirabies injection is sufficient to prevent rabies. All HWM knew ARV is given free of cost. So whenever they come across any dog bite victim, they advised them to go to hospital for ARV. 5.2 % of health workers think Rat bite can cause rabies.

Table III:
Knowledge of HWM about cause of Rabies by other animals apart from dog. (n=116)

Type of Animal	Number (%)
Monkey	72 (62%)
Fox, Jackal, wolf or hyena	70 (60.3%)
Cat	35 (30%)
Mongoose	24 (20.6%)
Snake	2 (1.7%)

All the health worker male knew rabies is transmitted by dog bite. Other animals responsible for transmission of rabies were monkey (62%), fox, jackal, wolf or hyena (60.35), cat (30%) and mongoose (20.6%). 1.7% of HWM had an idea that snake bite causes rabies. (Table-3)

Table IV:
Knowledge of HWM about the mode of transmission of Rabies

Mode of transmission	Number (%)
Bite of dog or other animal	116 (100%)
Lick on wound	40 (34.5%)
Scratches with nail of animal	30 (25.8%)
Consumption of raw milk of Rabid cow	36 (31.6%)
Don't know	16 (13.7%)

All the study subjects knew rabies is transmitted by animal bite. But less than 50% of health workers knew rabies could be transmitted by licks on wound (34.5%) and scratch with nail of animal (25.8%). 31.6% opined that taking raw milk of rabid cow can cause rabies. 13.7% had no idea about other mode of transmission of rabies except dog bite. (Table-4)

Table V:
Knowledge of HWM regarding Route of Anti Rabies vaccine

Route of ARV	Number (%)
Intramuscular over arm	58(50%)
Intradermal over arm	38 (32.7%)
Subcutaneous around umbilicus	12 (10.4%)
Don't know	8 (6.9%)

It is good that at least 50% knew that antirabies vaccine is given intramuscularly over arm. 32.7% knew that ARV can be given intradermally. 10.4% of health worker still believe antirabies vaccine is given around umbilicus. 6.9 % had no knowledge about route of administration of vaccine. (Table-5)

Among the health workers, 17.2% have misconception not to consume tomato or lemon or

Table VI:
Advices and Recommendation given by HWM after animal bite

Advices to prevent Rabies	Number (%)
Not to eat tomato or lemon	20 (17.2%)
Not to take non-vegeterian diet	20 (17.2%)
Don't go out during rain	46 (39.6%)
Not to do any heavy work	14 (12%)
Not to do sex	10 (8.6%)
Not to take alcohol	46 (39.6%)

any non-vegeterian diet during antirabies treatment. Knowledge about abstinence from heavy work is 12% and from sex is 12%. Only 39.6 % of health worker aware not to take alcohol during treatment.

DISCUSSION

The present study focused on the knowledge and perception of health worker males , who act as first level of contact for wound management for persons bitten by dog or any type of animals in rural areas. These health workers are working in rural areas like primary health centers or sub-centers.

In our present study, 100% knew about rabies which is far better as compared to 68.7% in a multicentric study in general population conducted by Ichhpujani RL et al.[5]

Ichhpujani RL et al[5] in a study revealed that 60.7% of study subjects associate rabies with dog bite only but in our study all the study subjects associated rabies of being transmitted by dog.

In our study, majority i.e 89.6% knew that dog bite wound should be washed with soap and water in comparision to study by Sekhon AS et al. where it is only 21.2%[7]. It is (67.9%)[8] among ASHAs, in rural Pune (23.5%)[9], in urban slum area (66%)[10] and a study by Undi Malatesh et al where it is 100%.[11]

Knowledge about route of giving ARV is poor in our study. 35% of the respondents knew ARV is given over gluteal area but it is 56% in a study by Bhall S et al [12].

10.4% of health worker still believe antirabies vaccine is given around umbilicus which is far better than a study conducted by Malatesh Undi in rural area of Bangalore where it is 52.17%.[11]

60.5% of health worker did not know rabies immunoglobulin in their study but it is nil in our study.

17.2% of health worker male opined to apply karela leaf paste or turmeric or any irritants over the wound which can be compared to other studies done among ASHAs in Karnataka state (14.7%)[8], rural areas of Gujarat (19.2%)[6],rural Pune (29.3%)[9], urban slum area (30.3%)[10]

CONCLUSION

Though knowledge of the study subjects on rabies is high, information on mode of transmission and site of injection is low. Knowledge on Rabies immunoglobulin is completely absent. Many health workers have false belief and misconception about food and work restriction during treatment. After collection of data, all the HWMs are given a training class regarding animal bite and its prevention.

So this study recommends education and training activities for HWM about Rabies and its treatment along with other training programmes as they are the first line of contact with rural people.

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