Title: AWARENESS OF RABIES PREVENTION AND INTRADERMAL RABIES VACCINATION (IDRV): A STUDY AMONG MEDICAL OFFICERS OF MANDYA DISTRICT, KARNATAKA

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Keywords Rabies, Post exposure prophylaxis, Medical Officers, Intra Dermal rabies vaccination

Abstract To assess the awareness of Medical Officers of Mandya District regarding rabies prevention and post exposure prophylaxis. To assess the awareness of Medical officers of Mandya district regarding Intra dermal rabies vaccination.

Original Article:

Awareness of Rabies Prevention and Intradermal Rabies Vaccination (IDRV): A study among Medical Officers of Mandya District, Karnataka

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Abstract:

Objectives: The objectives of the present study were

1. To assess the awareness of Medical Officers of Mandya District regarding rabies prevention and post exposure prophylaxis
2. To assess the awareness of Medical Officers of Mandya District regarding Intra dermal rabies vaccination.

Results: 95 (84.07%) of the 113 Medical Officers from the Primary Health Centres of Mandya District participated in this study. All the Medical Officers agreed that wound toilet was an important component of post exposure prophylaxis; however, only 13 (13.7%) of them were aware of the minimum duration of wound wash to be performed. 64 (67.3%) of the Medical Officers knew the correct WHO classification of animal bites. 62 (65.3%) of the Medical Officers were aware that Tissue Culture Vaccines should not be injected into the Gluteal region. 81 (85.3%) of the Medical Officers were aware of the correct schedule of the Essen Regimen. 63 (66.3%) of the Medical Officers informed that modern tissue culture vaccines can be administered during pregnancy. 80 (84.2%) of the Medical Officers had never used Rabies Immunoglobulin. 33 (34.7%) of Medical Officers were aware of the correct schedule for pre exposure prophylaxis and 7 (7.4%) of them were aware of the number of doses of vaccine to be given in re exposure cases. 58 (61.1%) of the Medical Officers were aware of the Updated Thai Red Cross Regimen and of them, 34 (58.6%) were aware of the correct dose and site of vaccine administration. 84 (88.4%) of the Medical Officers agreed that control of stray dog menace would lead to a decline in human rabies cases.

Key Words: Rabies, Post exposure prophylaxis, Medical Officers, Intra dermal rabies vaccination

Introduction

Rabies is a fatal viral zoonosis that occurs in more than 100 countries and territories. Rabies in dogs is the source of human infections and poses a potential threat to more than 3.3 billion people.[1] It is estimated that about 17.4 million animal bite cases and 20,000 human deaths occur in India every year.[2] Ignorance about the need for post exposure prophylaxis among the general public is cited to be one of the important factors contributing to the high mortality figures due to Rabies in India.[3,4,5,6]

It has also been revealed by some studies that the knowledge and practice regarding Rabies prevention among the medical professionals is lacking and this is a matter of concern and it adversely impacts the efforts for Rabies prevention[7,8]. The present study was envisaged to assess the awareness about rabies prevention among Medical Officers of Mandya District in Karnataka.

Material and Methods

Study Setting : Mandya District of Karnataka

Type of Study : This study is a descriptive study conducted using a pretested questionnaire and structured interview method

Study Participants : All Medical Officers of Mandya district with M.B.B.S, or higher qualification who were available at the time of the study were included in the study.

Results and Discussion

A total of 95 (84.07%) Medical Officers out of 113 were available for the interview at the time of the study and consented to participate in the study. They were administered the pretested questionnaire.

67 (70.5%) of Medical Officers who participated in the study were males. 85 (89.4%) of the Medical Officers were MBBS qualified, and 10 (10.6%) had

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Table 1
Number of animal bite cases seen by Medical Officers in a month

Number of animal bite cases seen in a month	Number	%
<5	81	85.3
5-10	09	9.5
10-15	01	1.1
>15	04	4.1
Total	**95**	**100**

additional postgraduate diploma or degrees. All the Medical Officers had managed animal bite cases in their practice. Mean duration of practice among the respondents was 8.79 ± 3.08 years. 48 (50.5%) of the Medical Officers were in the age group of 31 - 40 years. 76 (80%) of the Medical Officers were treating animal bite cases at present and the remaining Medical Officers were referring the cases to other centres including the Anti-Rabies Clinic of Mandya Institute of Medical Sciences. 81 (85.3%) of the Medical Officers catered to less than 5 cases of animal bites in a month (Table1).

Table 2
Advice given by Medical Officers about duration of wound wash

Duration of Wound wash	Number	%
5 minutes	37	38.9
10 minutes	31	32.7
15 minutes	13	13.7
As long as felt necessary	14	14.7
Total	**95**	**100**

25 (26.3%) of the Medical Officers had seen a case of suspected human rabies in their practice. 6 (6.3%) of the Medical Officers informed that they would initiate post exposure prophylaxis in a suspected human rabies case, whereas 18 (18.9%) of the Medical officers were aware that there was no treatment for Human Rabies and 71 (74.8%) said that they would refer the case to higher centres or the isolation hospital.

83 (87.4%) of the Medical Officers had facilities for wound wash at their health centres. All the 95 Medical Officers opined that wound toilet is a very important part of post exposure prophylaxis in animal bite cases, but only 13 (13.7%) of the Medical Officers advised the animal bite victims to perform wound wash for at least 15 minutes (Table 2).

Table 3
Distribution of Medical Officers by awareness of WHO classification of animal Bite

WHO Classification	Number	%
Three categories	64	67.3
Four categories	22	23.2
Two categories	5	5.3
Five Categories	4	4.2
Total	**95**	**100**

80 (96.4%) of the 83 Medical Officers who had facilities for wound toilet in their centres, informed that they would insist on the animal bite victims with fresh wounds to perform wound toilet at the health centres even if they had already performed wound toilet somewhere else. 77 (81%) of the Medical Officers informed that they instruct the animal bite victims to observe the animal (Dog/cat) for 10 days, but initiate PEP at first visit.

64 (67.3%) of the Medical Officers knew the correct WHO classification of animal bites (Table 3).

62(65.3%) of the Medical Officers were aware that Tissue Culture Vaccines for Post exposure Prophylaxis should not be injected into the gluteal region (Table 4).

81 (85.3%) of the Medical Officers were aware of the correct schedule of the intramuscular Essen Regimen. 83 (87.4%) of the Medical Officers were aware of the correct post exposure prophylaxis procedure to be followed in Cat III exposures. 63 (66.3%) of the Medical Officers informed that modern tissue culture vaccines can be administered during pregnancy. 80 (84.2%) of the Medical Officers had never used RIG in their practice, and of the 15 (15.8%) who had used it previously, none of them had used it in government service. Only 17 (17.9%) of the Medical Officers were aware of the correct dose of equine rabies immunoglobulin and 9 (9.5%) were

Table 4
Awareness of Medical Officers about the site at which Tissue Culture Vaccines should not be given

Site at which tissue culture vaccine should not be given	Number	%
Gluteal region	62	65.3
Antero lateral aspect of thigh	21	22.1
Deltoid	12	12.6
Total	**95**	**100**

aware of the maximum amount of equine rabies immunoglobulin that could be administered. 33 (34.7%) of the Medical Officers were aware of the correct schedule for pre exposure prophylaxis and 7 (7.4%) of the Medical Officers were aware of the number of doses of vaccine to be given in re exposure cases who had previously received pre exposure prophylaxis or the complete post exposure prophylaxis.

84 (88.4%) of the Medical Officers were aware of IDRV. 58 (61.1%) of the Medical Officers were aware of the Updated Thai Red Cross Regimen for IDRV, but only 34 (58.6%) of the 58 Medical Officers were aware of the correct dose and site of vaccine administered in the Updated TRC regimen.41 (43.2%) of the Medical Officers opined that IDRV and IM regimen can be interchanged.

33 (34.7%) of the Medical Officers strongly agreed that appropriate wound toilet would decrease the risk of acquiring rabies in animal bite victims.32 (33.7%) of the Medical Officers were of the opinion that all animal bite victims need not be given complete post exposure prophylaxis. 84 (88.4%) of the Medical Officers agreed that control of stray dog menace would lead to a decline in human rabies cases.

The present study has revealed that most of the Medical Officers were unaware of many aspects of post exposure prophylaxis for rabies prevention and the same situation exists among medical professionals as revealed by other studies.[7,8] Most of the Medical Officers in the present study were not aware of the correct duration of wound wash even though most of them expressed that wound toilet is a very important part of Post exposure prophylaxis. Awareness regarding pre exposure prophylaxis and treatment of re exposure cases was found to be lacking in the Medical Officers. None of the Medical Officers working in the PHCs of Mandya District had used Rabies immunoglobulin at their government centers. Knowledge of IDRV was lacking among the Medical Officers.

Recommendations

Based on the findings of the present study the authors reiterate the need for knowledge upgradation regarding the Post Exposure Prophylaxis for rabies prevention among the medical officers and also similar studies need to be done periodically to assess the knowledge and to plan awareness programmes among the care providers.

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