

Original Article

A Study of Awareness of Rabies Prevention and Intra Dermal Rabies Vaccination Amongst Doctors of Mandya City, Karnataka

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Abstract

Objectives: The present study was undertaken with the following objectives

1. To assess the awareness of rabies prevention amongst doctors of Mandya city.
2. To assess the awareness of Intra Dermal Rabies Vaccination amongst doctors of Mandya city.

Study setting: Mandya City in Karnataka State, India.

Study period: 1st June to 15th July of 2010

Type of study: Descriptive Study

Study participants: Practicing doctors of Mandya city with M.B.B.S., or higher qualification who treat animal bites in their practice.

Results: 67 of the 85 practicing doctors in Mandya city participated in the study. 67.2% of the doctors were aware of the WHO classification of animal bite wounds. 10.4% of the doctors advised the animal bite victims to perform wound wash for 15 minutes. 71.6% of the doctors were aware that modern tissue culture vaccines should not be administered in the Gluteal region. 95.5% of the doctors were aware of the correct schedule of Essen regimen. 49.3% of the doctors were aware of the schedule for pre exposure prophylaxis. 25.4% of the doctors were aware of the correct number of doses of TCV to be given in case of re exposure in a previously vaccinated individual. 41.8% (28) of the doctors said that they had used equine rabies immunoglobulin in their practice and of them, only 35.7% (10) were aware of the correct dose of equine rabies immunoglobulin. 85.1% of the doctors had heard about Intra Dermal Rabies Vaccination (IDRV). 64.2 % of the doctors were aware of the updated Thai Red Cross schedule. 76.1% of the doctors were of the opinion that IDRV was shifting patients from private to government hospitals.

Key Words: Rabies, Post Exposure Prophylaxis, Intradermal Rabies Vaccination.

Introduction

Rabies continues to be a major public health problem in India. Every year, 55,000 deaths are estimated to occur in the world¹, in India alone, 20,000 deaths are estimated to occur, thus contributing to 36.4% of the estimated global mortality due to rabies². 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^{3,4}.

Further, some studies have also shown that awareness level about appropriate rabies post exposure prophylaxis is lacking to some extent among the medical professionals, which may be detrimental in rabies prevention^{5, 6}. This study was taken up with the objectives of assessing the

awareness of rabies post exposure prophylaxis and Intra Dermal Rabies Vaccination amongst doctors of Mandya city in Karnataka.

Material and Methods

Study setting: The present study was undertaken involving the qualified doctors of Mandya city which is a district headquarter in Karnataka State in the South of India.

Study period: The study was conducted over a period of 1 ½ months from the 1st of June to the 15th of July 2010 excluding data analysis and write up.

Type of study: This study is a descriptive study that was conducted by adopting a structured interview using a pretested questionnaire.

Study participants: Practicing doctors of Mandya city with M.B.B.S., or higher qualification

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who were treating or had treated animal bite cases in their practice (n = 67) were included in the study.

Results and Discussion:

All 85 doctors practicing in the city were approached to conduct the study and of these only 67 doctors were treating animal bite cases in their practice and hence were included in the study. A pretested questionnaire was administered to the doctors in their clinic/ consultation room at their time of convenience.

Of the 67 doctors who participated in the study, 10 were women. Mean age of the participants was 43 years and mean years of practice was 14.37 years. 34 of the respondents had M.B.B.S. degree and 33 had postgraduate diploma or degree. All the doctors had treated animal bite cases. At present, 82.1% (55) of the practicing doctors were treating animal bite cases. The remaining 17.9% doctors who had stopped treating animal bite cases were referring them to the Anti Rabies Clinic of Mandya Institute of Medical Sciences. Of these 55 doctors who were treating animal bite cases at present, 72.7% (40) of them attended to less than 5 cases per month.

Only 10.4% of the doctors advised the animal bite victims to perform wound wash for 15 minutes as shown in table 1.

Table 1
Distribution of doctors by advice given to animal bite victims about duration of wound wash

Duration of wound wash	Number	%
5 minutes	28	41.8
10 minutes	15	22.4
15 minutes	7	10.4
As long as felt necessary	17	25.4
Total	67	100

31.3% of the doctors had facilities for wound toilet in their clinics or nursing homes. 77.6% of the doctors advise the animal bite victims to observe the biting animal if possible for 10 days but initiate post exposure prophylaxis immediately.

67.2% of the doctors were aware of the WHO classification of animal bite wounds as shown in table 2.

Table 2
Distribution of doctors by awareness regarding WHO classification of animal bite wounds

WHO Classification	Number	%
Two categories	9	13.4
Three categories	45	67.2
Four categories	1	1.5
Five categories	4	6.0
Does not know	8	11.9
Total	67	100

71.6% of the doctors were aware that modern tissue culture vaccines for rabies prevention should not be administered in the Gluteal region as revealed by table 3.

Table 3
Distribution of doctors by awareness of site at which Tissue Culture Vaccines should not be administered

Site at which tissue culture vaccine Should not be administered	Number	%
Deltoid	9	13.5
Antero lateral aspect of the thigh	10	14.9
Gluteal region	48	71.6
Total	67	100

95.5% of the doctors were aware of the correct schedule of Essen regimen. 76.1% of the doctors were aware that TCV can be given to pregnant women. 49.3% of the doctors were aware of the schedule for pre exposure prophylaxis. 25.4% of the doctors were aware of the correct number of doses of TCV to be given in case of re exposure in a previously vaccinated individual.

41.8% of the doctors said that they had used equine rabies immunoglobulin previously. Of these, 10 (35.7%) were aware of the correct dose of Equine rabies immunoglobulin. 4 (14.3%) of them were aware of the maximum amount of RIG that could be infiltrated.

85.1% of the doctors had heard about Intra Dermal Rabies Vaccination. 64.2 % of the doctors were aware of the updated Thai Red Cross schedule. 31.3% of the doctors were aware of the approved dosage of IDRV. 7.5% of the doctors were aware that PDEV is not licensed for Intra Dermal use. 38.8% of the doctors stated that individuals started on IM should not be changed over to IDRV or

vice-versa. 70.1% of the doctors were aware of the advantages of IDRV. 76.1% of the doctors were of the opinion that IDRV was shifting patients from private to government hospitals.

It is evident from the present study that awareness about rabies post exposure prophylaxis except the Essen regimen schedule is lacking in many aspects amongst the practicing doctors of Mandya city and is similar to the findings of other studies conducted elsewhere in the country⁵. Duration of the wound wash is not an important issue for most of the doctors. Awareness about pre exposure prophylaxis and treatment of re exposure cases is low. Rabies immunoglobulin usage and Knowledge is very low. Surprisingly, majority of the doctors were aware of intradermal rabies vaccination but knowledge regarding schedule, dosage and other aspects of intradermal rabies vaccination is poor.

Recommendations

In light of the findings of the present study the authors recommend that similar studies need to be taken up across the country to determine the knowledge levels regarding rabies prevention and intradermal rabies vaccination amongst practicing

doctors. It is imperative that refocus on professional awareness of rabies prevention be made by planners and national associations to achieve the objective of human rabies elimination from India in the near future. A concerted effort to increase awareness of intradermal rabies vaccination amongst the doctors is the need of the hour.

References

- 1) World Health Organization. WHO Expert Consultation on Rabies. TRS 931, WHO Geneva 2005.
- 2) Association for Prevention and Control of Rabies in India. Assessing Burden of Rabies in India, WHO sponsored national Multicentric Rabies survey, 2004. (www.apcri.org)
- 3) Icchpajani R.L, Chhabra M, Mittal V, Bhattacharya D, Singh J, Lal S. Knowledge, attitude and Practices about animal bites and Rabies in general community A multi centric study. J Commun Dis. 2006 Dec; 38(4):355-61
- 4) U S Singh, S K Choudhary. Knowledge, Attitude, Behavior and Practice study on Dog bites and its management in the context of rabies in a rural community of Gujarat, Indian Journal of Community Medicine. Vol 30, No 3, Jul-Sep 2005; pg 81-83.
- 5) S.Bhalla, J P Mehta, A Singh. Knowledge and Practice among General Practitioners of Jamnagar city regarding animal bite. Indian Journal of Community Medicine Vol 30, No 3, Jul-Sep 2005.
- 6) Shah S F U H, Jawed M, Nooruddin S, Afzal S, Sajid F, Majeed S et al. Knowledge and practices among the general practitioners of Karachi regarding dog bite management J Pak Med Assoc Vol 59, No 12, December 2009.

Announcement

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