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ASSESSMENT OF KNOWLEDGE REGARDING RABIES AND ITS PREVENTION AMONG POSTGRADUATE MEDICAL STUDENTS OF PGIMS ROHTAK

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ABSTRACT

Background: Rabies is a fatal viral zoonotic disease of public health importance. Prevention forms the basis of management. This study was thus planned to assess the knowledge of postgraduate students working in PGIMS Rohtak, regarding rabies and its prevention.

Methodology: A cross-sectional study was conducted among all postgraduate students, working in the departments managing cases of animal bite. The knowledge was assessed using a pretested semi-structured questionnaire. SPSS version 20 was used for analysis.

Results: More than 80% participants had knowledge about the standard wound management practices. Only half of them were clear about the intradermal vaccination schedule. About 1/3rd participant had knowledge about the categories of animal bite, immunoglobulin use i.e. its recommendation, site and dose of administration.

Conclusion: The current study revealed that the correct knowledge about animal bite management and Anti rabies immunization was lacking among postgraduate students managing cases of animal bite.

KEYWORDS : Rabies, Knowledge, postgraduate students.

BACKGROUND:

Rabies, a neglected tropical zoonotic disease is caused by the rabies virus (Lyssavirus genus, family Rhabdoviridae).[1] Globally 95% human rabies' mortality can be attributed to rabid dog exposure. It is a 100% fatal disease & claims more than 59,000 human lives every year globally.[2] One human life is lost every 15 minutes due to this deadly preventable disease. Over 95% of the mortality happens in Asia and Africa, where canine rabies is enzootic. In India, about 20,000 human deaths occur each year by the bite of rabid dog.[3] Timely initiation of post exposure prophylaxis following an animal bite result in 100% preventability of this fatal disease. Studies conducted in various parts of the globe have revealed a low level of awareness among the health care professionals in rabies post exposure prophylaxis. In a medical college setup in India, doctors pursuing their Post-graduation are the first one who attend these patients. So, this study was planned to assess the knowledge of postgraduate students working in PGIMS Rohtak, regarding rabies and its prevention.

OBJECTIVE:

To assess the knowledge of postgraduate students of PGIMS, Rohtak regarding Rabies and its prevention

MATERIALS & METHODS:

Study setting: This study was conducted in PGIMS, Rohtak, a tertiary care hospital in Haryana. Post graduates of all 3 years from the department of Medicine, Surgery, Paediatrics and Community Medicine were included in the study.

Study Design: Observational Cross-Sectional study.

Study Sample: All the 120 postgraduates from the department of Medicine (38), Surgery(38), Paediatrics (32) & Community Medicine(12) were included in the study.

Study Tool: The knowledge was assessed using a pretested semi-structured self-designed questionnaire.

RESULTS:

Most of the participants (85%) had less than 5 years' experience in clinical practice. Most of them were clear about the transmission (77%) and infected material (67%) of rabies. 2/3rd participants (67%) were aware about correct pre-exposure prophylaxis.

Table 1: Knowledge about Rabies and Pre-exposure prophylaxis:

Statement	Correct Response	% of correct response
Transmission of Rabies	Licks on intact skin	77%
Infected material for Rabies	Saliva of the infected animal	67%
Licks on broken skin is which category	Category III	22%
Abrasion without bleeding	Category II	53%
who should be given pre-exposure prophylaxis	All (Veterinary doctors, animal catchers, Zoo keepers, quarantine officers, travellers from free areas)	5%

No of doses of of ARV for PrEP as per I/D regime	Three	67%
Dose of rabies for children	Same as adults	81.7%

Almost all the participants (98-100%) were clear about the wound toileting & its duration post animal bite and most of them (80-90%) knew that the wounds should not be dressed/sutured/cauterized unless absolutely required.

Table 2: Knowledge about Rabies post-exposure prophylaxis:

Statement	Correct response	% of correct response
First step after animal bite	Wash with soap under running water	100%
Duration of wound toileting	10-15 min.	83%
Is dressing of wound necessary	No	71.7%
Is suturing of wound necessary	No	92%
Is cauterization of wound recommended	No	95%
No. of visits in I/M schedule	5 visits	60%
No. of visits in I/D schedule	4 visits	76%
Immunoglobulins for which category of bite	Category III	68.3%
Site of administration RIG	Full dose into and around the wound site	23%
Respective dose of Equine RIG	40IU/Kg	60%
Respective dose of Human RIG	20IU/Kg	66%
Maximum dose for ERIG	3000IU	15%
Maximum dose of HRIG	1500IU	22%

Only half of them were clear about the intradermal schedule and only 5% participants knew the difference in dose of Intramuscular and Intradermal schedule. About 33% participant knew about the category, dose, site of administration and maximum dose of Immunoglobulin to be given to animal bite victims.

DISCUSSION:

The knowledge of 120 post-graduate medical students of PGIMS, Rohtak regarding Rabies and its prevention was assessed. The mean work experience of the participants in our study was lower than study conducted in different parts of north India and by Holla et al in Mangalore[4].

Majority of participants knew about the transmission (77%) and infected material of Rabies (67%) which was lower than study conducted by Holla et al in Mangalore (91%). Knowledge about the category of bite & pre-exposure prophylaxis was also lower when compared to other studies.

All the participants were aware about the wound toileting method and most of them (83%) knew the appropriate duration of wound toileting which was significantly higher as compared to different studies conducted by Holla et al in Mangalore, Singh A et al in Ambala[5].

28.3% PGs were unaware regarding dressing practices of animal bite wound which was similar to the study conducted in Mangalore, whereas, it was 60% and 6% in studies conducted at Nayak RK et al in Belgaum[6] and Singh A et al in Ambala. The knowledge regarding IM (60%) & ID (76%) schedule was also lower when compared to other studies. The knowledge about immunoglobulin site of administration (23%), dose/kg (60%), and maximum dose (15-22%) was lower when compared to other studies conducted in Mangalore, Ambala, and Belgaum.

CONCLUSION:

Based on the results and discussion of the present study, it can be concluded that awareness of post graduate students of PGIMS, Rohtak about rabies & its prevention is inadequate. To combat the disease and to improve the outcome frequent training and workshops for the newly admitted PGs should be arranged.

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