

Title: A PROFILE OF WOMEN REPORTING TO THE ANTI RABIES CLINIC AT MANDYA INSTITUTE OF MEDICAL SCIENCES, MANDYA KARNATAKA

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Keywords Women, rabies, Category III exposures, Rabies Immunoglobulin, Compliance

Abstract To describe the socio demographic profile of women who reported to the Anti Rabies Clinic (ARC) of Mandya Institute of Medical Sciences, Mandya, Karnataka. To compare the compliance to Intra Dermal Rabies Vaccination (IDRV) among women receiving RIG and those not receiving RIG.

Original Article

A profile of women reporting to the Anti-Rabies clinic at Mandya Institute of Medical Sciences, Mandya, Karnataka

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Abstract

- Objectives :** The present study was undertaken with the following objectives
1. To describe the socio demographic profile of women who reported to the Anti Rabies Clinic (ARC) of Mandya Institute of Medical Sciences, Mandya, Karnataka.
 2. To compare the compliance to Intra Dermal Rabies Vaccination (IDRV) among women receiving RIG and those not receiving RIG.
- Study Setting :** The Anti-Rabies Clinic of MIMS, Mandya
- Study Period :** 1st January 2009 to 31st December 2009.
- Study Subjects :** All women animal bite victims who reported to the Anti-Rabies Clinic of MIMS, Mandya, during the study period, from 1st January 2009 to 31st December 2009.
- Type of study :** Hospital based retrospective study.
- Results:** A total of 1076 women attended the ARC of MIMS, Mandya during the study period of 1st January 2009 to 31st December 2009 for post exposure prophylaxis. Of the 1076 women, 340 (31.6%) were girl children less than 15 years of age. 660 (61.3%) of them were from rural areas. 1022 (95%) of the women were exposed to dogs. 717 (66.6%) of them had Category III exposure and 948 (88.1%) had performed wound toilet. In 684 (63.6%) women the exposure was in the lower limb. 378 (35.1%) of the women reported to the ARC within one day of exposure. Only 46 (6.4%) of the 717 women who were advised rabies immunoglobulin received it. Only 333 (31%) of them completed the full course of vaccination but 41 (89.1%) of the 46 women who took RIG completed the full course.
- Key Words:** Women, Rabies, Category III exposure, Rabies Immunoglobulin, Compliance.

Introduction

Rabies is a fatal viral zoonosis and a serious public health problem.¹ In India alone, Rabies causes an estimated 20,000 deaths with 17.4 million exposures to animal bite occurring every year.²

From many perspectives, women in South Asia find themselves in subordinate positions to men and are socially, culturally and economically dependent on them.³ There is a difference in health seeking behaviour between the genders due to the above factors.⁴ Though almost all studies have observed that majority of the people exposed to animal bite are of the male sex, the risk for the exposed women due to animal bite is no less when compared to exposed males. However the repeated stress by different authors on male preponderance in exposure and disease may subconsciously serve to send across a wrong

message and in an already skewed situation of inequitable access and acceptance of health care may prove disastrous.

In this background the present study was undertaken.

Objectives: The present study was undertaken with the following objectives.

1. To describe the socio demographic profile of women who reported to the Anti Rabies Clinic of Mandya Institute of Medical Sciences, Mandya, Karnataka.
2. To compare compliance to IDRV among women receiving RIG and those not receiving RIG.

Study Period: The present study was conducted using records from 1st January 2009 to 31st December 2009.

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Study Subjects: The records from the source register (OPD register) of all women who reported to the ARC of MIMS during the study period were included into the study.

Study Design: The present study is a hospital based retrospective study.

Material and Methods: The present retrospective study was carried out by analysing the data entered in the records of the ARC of MIMS from 1st January 2009 to 31st December 2009. A total of 1076 women reported to the ARC during this period and their records were analysed for age, place of residence, type of animal exposure, category of exposure, RIG acceptance and compliance to the full course of vaccination.

Results and Discussion:

Table 1
Age Distribution of women (N=1076)

Age in Years	Number	Percentage
< 15	401	37.3
> 15	675	62.7
Total	1076	100

Of a total of 4013 new bite victims who reported to the ARC of MIMS, Mandya in 2009, 1076(26.8%) were women. Among them, 401(37.3%) were children aged less than 15 years. This age distribution is comparable to the previous studies conducted at our centre⁵ and also with other studies.^{2,6}

Majority of the women who reported to the ARC were from the rural areas. 660 (61.3%) of the women who reported to the ARC during the study period were from the rural areas and 416 (38.7%) were from the urban areas.

Table 2
Distribution of women by type of animal exposure (N=1076)

Animal	Number	Percentage
Ret Dog	340	31.6
Community owned Dog/ Stray Dog	682	63.4
Cat	37	3.4
Cow	7	0.7
Monkey	9	0.8
Pig	1	0.1
Total	1076	100

It is evident from the above table that the commonest animal to which the women were exposed was the dog. 1022 (95%) of the women gave the history of exposure to dogs. Of these 197 (19.3%) of the dogs had been immunised and the remaining 825 (80.7%) dogs were unimmunised or their immunisation status was not known. This is similar to other studies done at our centre⁵ and elsewhere.^{7,37} (3.4%) of the women were exposed to cats, 9 (0.8%) to monkeys, 7 (0.7%) to cows and 1 (0.1%) to pig.

717 (66.6%) of the women had category III exposure and 359 (33.4%) had category II exposure.

Table 3
Distribution of women by performance of wound toilet (N=1076)

Wound Toilet	Number	Percentage
Not Done	128	11.9
Water Only	180	16.7
Water and Soap	751	69.8
Water, Soap and Disinfectant	16	1.5
Disinfectant Only	01	0.1
Total	1076	100

Of the 1076 women, 128 (11.9%) had not performed wound toilet before reporting to the ARC. A total of 948 women (88.1%) had performed wound wash before reporting to the ARC of which, 751 (79.2%) had performed wound toilet using water and soap.

Table 4
Distribution of women based on time from exposure to reporting at ARC (N=1076)

Time since exposure	Number	Percentage
< 1 day	378	35.1
1-3 days	563	52.4
4-6 days	68	6.3
> 7 days	67	6.2
Total	1076	100

Only 378 (35.1%) of the women reported to the ARC of MIMS within a day of exposure. 563(52.4%) of the women reported to the ARC within 1-3 days of exposure and 68 (6.3%) reported by 4-6 days. 67 (6.2%) of the women took a week or more than a week to report to the ARC.

Table 5
Distribution of women based on site of wounds
(N=1076)

Site of Wounds	Number	Percentage
Head and Neck	36	3.3
Upper Limb	328	30.5
Lower Limb	684	63.6
Trunk	22	2.0
Multiple sites	06	0.6
Total	1076	100

In 684 (63.6%) of the women the site of wounds was on the lower limbs, followed by 328 (30.5%) women with wounds on the upper limbs, 36 (3.3%) with wounds on head and neck and 22 (2%) had wounds on the trunk. In 6 (0.6%) of the women the wounds were on multiple sites. Similar observations have been made by other studies also.^{8,9}

Table 6
Distribution of women based on type and application of irritant (N=1076)

Type of Irritant	Number	Percentage
No Irritant	1026	95.4
Turmeric Paste	15	1.4
Chilli Powder	10	0.9
Lime powder	9	0.8
Jack fruit sap	6	0.6
Others	10	0.9
Total	1076	100

1026 (95.4%) of the women had not applied any irritants to the wound. Of the 50 (4.7%) women who had applied irritants 15 (1.4%) had applied turmeric paste, 10 (1%) had applied chilli powder, 9 (0.8%) lime powder, 6 (0.6%) jack fruit sap and 10 (1%) had applied other irritants.

Table 7
Distribution of women based on RIG administration (N=717)

RIG administered	Number	Percentage
Yes	46	6.4
No	671	93.6
Total	717	100

Of the 717 women who had category III exposure and were advised RIG only 46 (6.4%) opted to

receive RIG. Availability of RIG at our centre has resulted in an increase in the rate of animal bite victims who opt to receive RIG.⁵ The percentage of women who opted for RIG is comparable to the overall figures of animal bite victims with category III exposure who received RIG in our centre.¹⁰

Table 8
Distribution of women based on number of doses of vaccine received (N=1076)

No of doses of vaccine	Number	Percentage
One dose	1076	100
Two doses	926	86.1
Three doses	676	62.8
Four doses	333	31
Disinfectant Only	01	0.1
Total	1076	100

Of the 1076 women who had received the first dose of vaccine, only 926(86.1%) received the second dose of vaccine. A total of 676 (62.8%) received the third dose and only 333(31%) completed the full schedule of vaccination. Overall, 743 (69%) of the women did not complete the full course and dropped out. This is comparable with the prevailing dropout rates in our centre¹¹ but is higher compared to other centres.⁶

Table 9
Distribution of women who received RIG and completed the vaccination schedule (N=46)

Women who received RIG and Completed the course of vaccination	Number	Percentage
Yes	41	89.1
No	05	10.9
Total	46	100

Out of 46 women who had received RIG, 41(89.1%) completed the full course of vaccination. This is higher compared to the total RIG recipients who completed the full course of vaccination (60.8%) in the same centre.¹⁰ The dropout rate among receivers of RIG is lower compared to those who did not receive RIG.

References:

1. Rabies. In: Heymann D, ed. Control of Communicable diseases manual. 18th edition. Washington, DC: American Public Health Association: 2004:438 - 47

2. Association for Prevention and Control of Rabies in India. Assessing the burden of rabies in India: WHO sponsored National multi-centric rabies survey, 2004 [www.apcri.org]
3. Narayan D, Patel R, Schafft K, Rademacher A, Koch-Schulte S. Changing gender relations in the household. In: Voices of the poor: can anyone hear us? New York, NY: Oxford University Press, 2000.
4. web.worldbank.org/WEBSITE/EXTERNAL/TOPICS/EXT/POVERTY (accessed on 8/6/2010 at 3.00 pm)
5. Borooah VK. Gender bias among children in India in their diet and immunisation against disease. Soc Sci Med 2004;58:1719-31.
6. B.R.Harish & et al. Intradermal Vaccination dedicated anti rabies clinic, experience at Mandya Institute of Medical Sciences, Mandya, Karnataka state. APCRI Journal, July 2008: Vol X, Issue I:20-22
7. D.M.Satapathy, D. Shoba Malini, T.R.Behera, S.S.S. Reddy, R.M.Tripathy, T.sahu. Intra Dermal Rabies Vaccination: The crucial 1st year experience. Brief Report. APCRI Journal, July 2009: Vol XI, Issue I:27-28
8. Renu Bedi & et al. Profile of animal bite cases attending Anti Rabies Clinic of JLN Medical College & Hospital, Ajmer. APCRI Journal Vol VIII, Issue I, July 2006:28-30
9. Tiwari Ranjana, Marathe Neera, Srivastava Dhiraj Kumar. A retrospective study of the patients attending the Anti Rabies Clinic at J.A.Group of Hospitals, Gwalior APCRI Journal, July 2009: Vol XI, Issue I : 24-26
10. Sudarshana M K, Ashwath Narayana D H. A clinical evaluation of usage of Rabies immunoglobulins. APCRI Journal, January 2010: Vol XI, Issue II : 33-34
11. Vinay & et al. Profile of rabies immunoglobulin recipients of Anti Rabies Clinic, MIMS, Mandya. (Accepted for publication in APCRI Journal)
12. Mahendra B J , Harish B R , Vinay M. A study of factors influencing compliance to IDRV at Anti-Rabies Clinic of Mandya Institute of Medical Sciences, Mandya. APCRI Journal, July 2009: Vol XI, Issue I:18-20

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The APCRI Journal is published twice a year. Once in January and again in July.

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