

## Original article

# Matrix ranking of diseases in relation to dog bite and rabies in the rural community

N.R. Ramesh Masthi

## Introduction :

Rabies is a zoonotic disease<sup>1</sup>. In India, an estimated 20,000 human rabies deaths are reported annually and three-fourths of these are reported from rural areas affecting mostly the poor. Majority (76%) of the rabies victims are from rural areas and belong to the lower socio economic status (88%). Majority of the rabies death occurred in males (71%) and children (35%) below 14 years of age. Rabies victims (79%) had not received any rabies vaccination. The animal bite incidence is 1.7%. The most common biting animal was dog (92%) and majority of them were strays (70%)<sup>2</sup>. In this context the present study was taken up to assess if dog bite and rabies are the main health problems and diseases observed in the rural population and to rank the health problem and disease (dog bite and rabies) according to matrix order (rank) of importance.

## Materials & Methods:

The present study was conducted **in the rural field practice area of the department of community medicine, Kempegowda Institute of Medical Sciences, Bangalore**. Three villages were included in the study by convenient sampling. The study was conducted over a period of three months (Oct-Dec 2005). The study population were adult males, adult females and school children. The sample consisted of about 30 members from each group. Matrix ranking of disease is a participatory rural appraisal (PRA) technique used for ranking diseases in the rural community. In **matrix ranking of diseases**, groups are asked to list their main health problems. Then for each category of problem, groups are asked to rank them in order of priority<sup>3</sup>. In the present study 3 groups i) adult male, ii) adult female and iii) school children were asked to elicit their views on the main health problems & diseases

in the community and to rank them according to matrix ranking.

## Results :

In the adult male members who were asked to name the main diseases in the community and rank them according to frequency, we observed from the table I that dog bite is one of the important and second most frequently occurring health problem. Similarly according to the adult female members who were asked to name the main diseases in the community and rank them according to frequency, they had observed that Tuberculosis as the important communicable disease in the community. Dog bite did not figure in the ranking or important disease. Lastly among the school children who were asked to name the important diseases in the community and rank them according to frequency, they had observed dog bite as one of the important and fourth most frequently occurring health problem. However we observed none of the groups named rabies as a main disease in the community.

**Table - I**  
**Matrix ranking of diseases Adult Male**  
**(n=30)**

Rank Order	Five Communicable Disease	Five Non Communicable Disease
1.	Hepatitis	Accidents
2.	<b>Dog bite</b>	Dental carries
3.	Skin infection	COPD
4.	Gastro-enteritis	Gynecological Problems
5.	Upper & lower respiratory tract infection	Diabetes Mellitus

## Discussion:

Among the adult males in the present study it was observed that dog bite is an important health problem and none of them had mentioned about the



disease rabies indicating lack of awareness. In the study conducted by APCRI<sup>2</sup>, It was observed majority of the bites were seen in males in both urban (68%), and rural (92%) areas, and majority of them were stray (70%). However among the women none of them mentioned dog bite or rabies as the important disease in the rural community indicating no awareness about the disease. Among the school children it was observed that dog bite is an important health problem and none of them had knowledge about the disease rabies indicating lack of awareness. However Vinay M et al had observed in their study that 100% of the college students had heard about rabies and 97% of the students knew that dogs transmit rabies<sup>4</sup>.

The present study clearly shows that there is no awareness regarding rabies in the rural community. As rabies is 100% fatal disease, there is need for advocacy on awareness of the dangers of animal bites and rabies and should form one of the important strategy in the proposed national rabies prevention control programme.

To conclude dog bite is perceived to be a important and most frequently occurring health problem by adult male and school children in the rural community. However there is no awareness about rabies among all the groups.

#### **Acknowledgement:**

I would like to sincerely thank Dr M K Sudarshan, Dean & Principal & Professor of Community Medicine, Kempegowda Institute of Medical



Participation of the adult males in matrix ranking of disease

Sciences, Bangalore for giving me the opportunity to conduct the study and Dr B J Mahendra Professor & HOD, Department of Community Medicine, Mandya Institute of Medical Sciences, Mandya for his guidance and valuable support in conducting the study.

#### **References:**

1. George M Baer : The Natural History of Rabies, 2<sup>nd</sup> edition, Boston: CRC press, 2000; 515.
2. Association for Prevention and Control of Rabies in India-Assessing the burden of rabies in india: WHO sponsored national multicentric rabies survey, 2004; 16-27.
3. Social Development Papers-Environmentally and Socially Sustainable Development, Participation series, World Bank paper number 20, April 1997; 1,9.
4. Vinay M, Mahendra B J, Harish B R, Venu RP- A study of awareness regarding rabies and its prevention among college students of maddur town in karnataka state: APCRI Journal, volume XI, Issue 1, July 2009; 35-37.

## **Announcement**

**The APCRI Journal is published twice a year. Once in January and again in July. The APCRI Journal invites Contributions from the Scientific Community, on All aspects of Rabies and Related Matter, in the form of Original Articles and Review Articles, Brief Reports, Case Reports, Personal Viewpoint, Letters to the Editor, Notes and News, Your Questions and Book Review.**

**Please Contact:**

**Dr. Amlan Goswami,**

**Convener of the Editorial Board of APCRI,  
28-A, Gariahat Road, 2<sup>nd</sup> Floor, Flat No: 2-A,  
Kolkata- 700029, INDIA.**

**Phone: 91- 33-24405826, Mobile : 91- 9830212694.**

**E-Mail: amlan\_kolkata29@rediffmail.com**