A STUDY OF CERTAIN SOCIODEMOGRAPHIC FACTORS AMONG PATIENTS WITH DOG BITE IN MULKY COMMUNITY HEALTH CENTRE, DAKSHINA KANNADA DISTRICT

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INTRODUCTION

Rabies is an archaic zoonotic disease, which has been described in the ancient Indian Scripture, the Atharvaveda continues to be a major public health problem even today (Deshmukh, 2004). It is ranked as the 10th biggest cause of death due to infectious diseases in the world, and results in 50,000 - 60,000 deaths annually, majority of them being in tropical developing countries (Haupt, 1999). About 36% of these deaths occur in India, with an estimated burden of 2.74 rabies cases per 100,000 people per year, and actual number of deaths projected as 20,565 annually (Rozoario Menezes, 2008). In India, rabies is not a notifiable disease and there is no organized surveillance for human or animal cases. The most vulnerable members of society, children and poor or lower socio-economic classes are typically affected and succumb to this disease (Dutta, 1999; Ghosh, 2006). The classic clinical features of rabies viral infection, in humans, include hydrophobia, aerophobia, hyper-salivation, agitation, and neurological symptoms, invariably resulting in a fatal encephalomyelitis (Dimaano et al., 2011). A majority of the victims are unvaccinated, adult males, from rural areas. Many victims use indigenous methods of treatment following animal bite, and only about half of them seek hospital attention. One tenth of these patients had taken a partial course of vaccine. The most common bite sites are the head of individuals (Neammanon et al., 2008). In India, the bite rate is 17.4 per 1000 population. Category III exposure as per the WHO classification is estimated to about 63%. Washing of the wound with water/soap or water alone, are practiced by 58.5% people. Application of chillies, salt, turmeric powder, lime, snuff powder, paste of leaves, acid, ash are also practiced by 10.8% of bite victims (Ichhapurjan et al., 2008). This study was planned to estimate the number of dog bite cases coming to Community Health Centre Mulky for Vaccine and their compliance, to throwlight upon the requirements needed and...
the difficulties in vaccination in order to prevent an easily preventable deadly disease.

**MATERIALS AND METHODS**

Longitudinal study was conducted in CHC Mulky, among patients registered from November 2015 to April 2016. All the patients receiving anti rabies vaccine in the OPD during study period who are willing to participate in the study were included in the study. After obtaining free and informed consent, the participants were administered the pre-tested, structured questionnaire at the time of first visit to CHC. The dog bite victims were classified into 3 Categories of contact and recommended post exposure prophylaxis as per the WHO guidelines.

**Categories of contact**

Category 1 – Touching or feeding animals, licks on intact skin.

Category 2 – Nibbling of uncovered skin, minor scratches or abrasions without bleeding.

Category 3 – Single or multiple trans-dermal bites or scratches, licks on broken skin; contamination of mucous membrane with saliva from licks, contacts with bats.

The participants were followed up for the subsequent dosage as advised. On completion of the time for full course of recommended dosage, the records were analysed and the data was collected. The results were analysed using SPSS software.

**RESULTS**

The Table 1 shows that number of study subjects over a period of 6 months were 235, all of them were bitten by dogs. 54 (22.97%) were in the 21-30 years age group, 45(19.14%) were in the 31-40 years age group and 46 (19.57%) were more than 50 years of age. 135 (57.44%) were males and 100 (42.56%) were females. 211 (89.7%) subjects belongs Hindu religion followed by Muslims. Majority of the study subjects belongs to BPL Family (60%)

<table>
<thead>
<tr>
<th>Number of Doses received</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Same day of dog bite</td>
<td>34</td>
<td>36</td>
<td>44</td>
<td>40</td>
<td>81</td>
</tr>
<tr>
<td>Previous day</td>
<td>158</td>
<td>49</td>
<td>28</td>
<td></td>
<td></td>
</tr>
<tr>
<td>&gt;2day</td>
<td>67.23</td>
<td>20.85</td>
<td>11.91</td>
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<tr>
<td>Referred by Whom</td>
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<td>32</td>
<td>41</td>
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</tr>
<tr>
<td>Self</td>
<td>68.93</td>
<td>13.61</td>
<td>17.44</td>
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<tr>
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<td>18.72</td>
<td>17.02</td>
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</tr>
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<td>7.46</td>
<td>17.02</td>
<td>17.02</td>
<td>68.93</td>
</tr>
<tr>
<td>Number of Doses received</td>
<td>94</td>
<td>40.00</td>
<td>60.00</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The present study revealed that the majority of the dog bite victims were males 57.44%. 66% of those bitten were below 40 years. Several international and national studies have reported a similar profile where the productive age group is predominantly affected (Aghahowa and Ogbevoen, 2010; Clinical and epidemiological features of human rabies cases in the Philippines, 2011). In the present study that most of the dog bite victims (85.55%) had Category 2 or 3 wounds, 91.06% of the bites were on the extremities, 94.04% of the victims washed the wound. Public health educational programs are needed to create awareness in the public regarding the dangers of inadequately managed animal bites. The importance of proper wound care must be reinforced. Studies have shown varied...
results with regards to the completion of anti-rabies regimen ranging from 50.2% to 40.5% (Sudarshan et al., 2006). In the present study 67.23% of the dog bite victims approached the hospital on the same day and 34.46 % completed the full course of vaccination. Retrospective studies on rabies victims in India have shown that dogs were the biting animals, majority of the victims were males and unvaccinated, 10% of the victims were partially immunized with post exposure prophylaxis (Sudarshan et al., 2007). This emphasizes the need for adherence to the recommended course of vaccination.

**Conclusion**

This study shows that dog bites affect people of all age groups. Though people are aware of the necessity to approach a health facility following dog bite they are not motivated to complete the full course of vaccination following exposure. There is a need to create awareness regarding adherence to treatment through a strong information education and communication programme among the community.

**REFERENCES**


Rozario Menezes. Rabies in India, MD, CMAJ • February 26, 2008 • 178(5)


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