FIVE YEARS TREND ANALYSIS OF PATIENTS ADMITTED TO McGANN HOSPITAL IN SHIMOGA DISTRICT, KARNATAKA: A RETROSPECTIVE STUDY.

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ABSTRACT

Alcoholism is one of the major problems hindering the growth of many developing countries including India. Alcohol consumption has been steadily increasing in India since 1980s and has been identified as the third largest market for alcoholic beverages. This increased rate of alcohol consumption has adverse effects on society, economy, youth, health, safety and absenteeism. In this retrospective study over a period of five years (2008-2012), the data of patients at a district hospital in Shimoga, Karnataka, India, have been analyzed keeping in view of alcoholic patients. The results of this study indicate that there has been a steady increase in the percentage of alcoholic inpatients as well as outpatients over the years. Further, during the study period about 2.6% of total outpatients and 1.4% of total inpatients recorded at this hospital were due to alcohol related disorders. Among these alcoholics, about 70% patients suffer from liver cirrhosis or liver damage.

KEYWORDS: Alcoholism, liver cirrhosis, liver damage.

INTRODUCTION

The increased rate of alcohol consumption in India has adverse effects on society, economy, youth, health, safety and absenteeism. The proportion of injuries linked to alcohol use is estimated to be 59% of all injuries in India. [1] Brewing and drinking of various liquors was developed into an art in ancient India. Beverages that are believed to contain ethanol are mentioned in ancient Indian literature dated back to Vedic period around 2000 B.C.[2] Currently, India’s ethanol production is 2,170 million litres in 2012, against 1,681 million...
litres in 2011. Domestic consumption of ethanol is 2,085 million litres in 2012 as compared to 1,995 million litres in 2011. About 880 million litres of ethanol has been used in manufacturing of potable liquor, 720 million litres for industrial use and 400 million litres for blended gasoline in 2012.[3] Out of 330 distilleries in India, about 140 have the capacity to distil around 2 billion litres of conventional ethanol per year and could meet the demand for 5% mandatory blending of ethanol with petrol. In India, Karnataka state is the third largest producer of ethanol and is the homeland of a variety of tasty and well flavoured indigenous alcohols and liquors. Several interpretations exist on the drinking habit of Kannadigas, which include mild and strong ones brewed from rice, ragi (sweet barley), palm and ichala (wild palm) and milder ones prepared from grapes, mangoes, jackfruit, coconut, and dates flavored with flower essences. [4] Alcohol is also an ingredient in many medicinal preparations in the traditional Ayurvedic medicinal system. [5] As per the literature, the increased rate of alcohol consumption has adverse effects on society, economy, youth, health, safety and absenteeism. In this regard, we conducted this retrospective analysis the data of alcoholic patients over a period of five years (2008-2012) at Shimoga District McGann Hospital, Shimoga, Karnataka.

RESULTS

In this study, we collected the data of total outpatients and inpatients who visited and admitted to Shimoga district McGann hospital in a period of five years (January 2008 to October 2012) and analyzed the data of alcoholic outpatients and alcoholic inpatients (Table 1). The percentage of total alcoholic outpatients and inpatients were compared with those of all patients admitted to the hospital during this period. The data indicates that during the study period, a total of 13,82,997 outpatients visited the hospital with an average of 2,76,600 outpatients per year and 756 outpatients per day. Out of these outpatients, 7,139 were due to alcohol related disorders which accounts for about 2.6% of total outpatients per year. On the other hand, a total of 2,44,071 inpatients were admitted to the hospital with an average of 48,814 and 133 inpatients per year and per day, respectively. Out of total inpatients, 693 were due to alcohol related disorders, that is about 1.4% of total inpatients per year. Among these alcoholic inpatients, about 70% were found to be suffering from liver cirrhosis or liver damage. Other common symptoms for all the patients include irritability, sleeplessness, stomach ache, vibrations, anger, lack of appetite, loss of memory, back pain and vomiting. Further, some of these patients were also found to have other addictions such as smoking, chewing of tobacco and gutka. The analysis of data reveals that there has been a steady
increase in percentage of outpatients as well as inpatients suffering from alcoholism and related disorders during the study period (Fig. 1).

Table 1: The pattern of patients admitted to district McGann hospital, Shimoga, during January 2008 to October 2012.

<table>
<thead>
<tr>
<th>Year</th>
<th>Total number of OPs</th>
<th>Daily average</th>
<th>Total number of IPs</th>
<th>Daily average</th>
<th>Alcoholic OPs</th>
<th>Alcoholic OPs (%)</th>
<th>Alcoholic IPs</th>
<th>Alcoholic IPs (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td>2,76,389</td>
<td>755</td>
<td>47,712</td>
<td>130</td>
<td>6,840</td>
<td>2.47</td>
<td>612</td>
<td>1.28</td>
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<tr>
<td>2009</td>
<td>3,06,777</td>
<td>840</td>
<td>58,380</td>
<td>160</td>
<td>7,449</td>
<td>2.42</td>
<td>732</td>
<td>1.25</td>
</tr>
<tr>
<td>2010</td>
<td>2,98,961</td>
<td>819</td>
<td>51,256</td>
<td>140</td>
<td>7,454</td>
<td>2.49</td>
<td>721</td>
<td>1.4</td>
</tr>
<tr>
<td>2011</td>
<td>2,80,186</td>
<td>767</td>
<td>45,140</td>
<td>123</td>
<td>7,080</td>
<td>2.52</td>
<td>698</td>
<td>1.54</td>
</tr>
<tr>
<td>2012</td>
<td>2,20684</td>
<td>602</td>
<td>41,583</td>
<td>113</td>
<td>6,870</td>
<td>3.11</td>
<td>702</td>
<td>1.68</td>
</tr>
<tr>
<td>Total</td>
<td>13,82,997</td>
<td>3,783</td>
<td>2,44,071</td>
<td>666</td>
<td>35,693</td>
<td>13.01</td>
<td>3,465</td>
<td>7.15</td>
</tr>
<tr>
<td>Mean</td>
<td>2,76,599.4</td>
<td>756.6</td>
<td>48,814.2</td>
<td>133.2</td>
<td>7,138.6</td>
<td>2.61</td>
<td>693</td>
<td>1.43</td>
</tr>
</tbody>
</table>

IP, Inpatient; OP, Outpatient

Figure 1: Percentage of alcoholic outpatients (OPs) and inpatients (IPs) recorded at the district McGann Hospital, Shimoga, Karnataka.

IP, Inpatient; OP, Outpatient

DISCUSSION
This retrospective analysis of data of alcoholic patients at a district hospital in Karnataka, India, indicates an increase in the percentage of patients which is in correlation with the rate
of increase in alcohol consumption in the country in general. The increase in addiction may be correlated to an increase in overall GDP growth of 56.2% and per capital GDP growth of 42.3% in the last decade in Karnataka state. It is also to be noted that, about 70% patients were found to be suffering from chronic liver damage or cirrhosis indicating that the patients visit the hospital only at later stages of their alcohol related illness. From the data collected from our study, although it is not possible to clearly point out the causes of increase in alcoholism, the increase in the percentage of alcoholic patients may be due to various factors including change in the socio-economic status, state alcohol policy regarding sale and price, and lack of awareness regarding adverse effects due to alcohol addiction. Hence, there is an urgent need to implement proper programs to control the problem of increase in the rate of alcohol addiction and related social and health hazards. This includes proper education and creating awareness especially among the youths with respect to the problems associated with alcoholism. In addition, it is also very important to identify the population who have been suffering from alcoholism and strengthen the de-addiction programs in this region in particular and in the country in general.

ACKNOWLEDGEMENT
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REFERENCES
3. India’s 2012 Ethanol Output likely to rise 29%. The Economic Times 2012, June 27.