KNOWLEDGE AND ATTITUDE OF PATIENTS TOWARDS HEPATITIS B AND C

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ABSTRACT
Objective: To assess the level of knowledge and attitude of patients towards Hepatitis B & C in a public sector hospital, especially with reference to educational level.
Design & Duration: Descriptive and cross sectional study, from April to August 2006.
Setting: Surgical Unit-I, Nawabshah Medical College Hospital, Nawabshah.
Patients: All patients admitted in Surgical Unit-I, NMCH, during the study period.
Methodology: Data was collected on a preformed questionnaire. Results were compiled and compared with national and international literature.
Results: During the study period 500 admitted patients were asked questions regarding Hepatitis B and C. Amongst them 280 were males and 220 females. Only 10% males and 5.9% females were educated beyond primary level, and 20.4% males and 10% females to primary level, while 76% were illiterate. Patients educated beyond primary level had more knowledge than illiterate persons about the condition, especially regarding the cause, organ of involvement, prevalence in society, presentation, and vaccination for Hepatitis B. One alarming thing found in this study was lack of knowledge about risk factors, especially amongst illiterate persons. There was also lack of responsibility and poor attitude of even educated persons towards the treatment of these diseases. Both literate and illiterate persons were following customs of community and relying on homeopathic or herbal medicines for their treatment.
Conclusion: There is a significant lack of knowledge and poor attitude of people towards Hepatitis B and Hepatitis C in this area.

KEYWORDS: Hepatitis B, Hepatitis C, Public Awareness, Public Education

INTRODUCTION
Viral hepatitis is a serious health problem affecting approximately two billion people worldwide. Throughout the world Hepatitis B has infected about two billion people, amongst them 350 million has chronic liver disease\(^1\). Hepatitis C virus infection appears to be endemic in most parts of the world, with a prevalence of around 3% world-wide\(^2\). An estimated 170 million people have chronic hepatitis secondary to Hepatitis C. Both these viruses affect 3-4 million people worldwide each year\(^3\).

In Pakistan a large portion of the population is already infected with Hepatitis B and C, the prevalence being about 10% for Hepatitis B and 4-7% for Hepatitis C\(^4,5\). In certain parts, especially in the rural areas, the percentage of infected individuals is significantly higher than the above quoted figures, as shown in different studies. One such study conducted at Nawabshah showed a value of 8.6% for Hepatitis B and 11.6% for Hepatitis C\(^6\). Transmission of both these viruses can occur through blood\(^7\), so persons who are receiving injections or dental treatment through unsterlized syringes or instruments or unchecked blood transfusions in patients of thalas-smia or patients on haemodialysis, and patients who have their armpits or face shaved by street barbers or involved in sexual abuse are at increased risk of developing these infections\(^8,9\).

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Pakistan is a developing country with low educational and health standards, due to the meagre amount of budget spent on education and health. Nawabshah is a central district of Sindh with a population of 11,35,121, 74% comprises of rural areas. There is one tertiary care hospital (attached to Nawabshah Medical College), one taluka hospital, eight rural health centers, 36 basic health units and 26 dispensaries10. Only a small percentage of the population is educated to secondary level.

The treatment of these diseases is expensive and will result in a huge burden on the economy of the country. Hence, there should be more stress on preventive measures to avoid the spread of these deadly diseases. These include use of disposable syringes, screened blood transfusions, avoidance of sexual abuse, antiseptic shaving and hair cutting, proper sterilization techniques in hospitals, clinics and operation theatres, and most importantly mass vaccination drives against Hepatitis B11.

This study was carried out to find the knowledge and attitude of people in the Nawabshah region about Hepatitis B and C, in order to create awareness and know how about the adoption of preventive measures in the society.

**PATIENTS & METHODS**

This descriptive and cross sectional study was conducted at Nawabshah Medical College Hospital, Nawabshah from April to August 2006. During this period 500 admitted patients were asked the following questions relating to awareness and attitude towards Hepatitis B and Hepatitis C, apart from collecting demographic data:

1. Are these viral diseases  
   Yes [ ] No [ ]  
2. Are these diseases common in our society  
   Yes [ ] No [ ]  
3. Do they affect theLiver primarily  
   Yes [ ] No [ ]  
4. Is the mode of transmission blood borne  
   Yes [ ] No [ ]  
5. Can these be transmitted by un-sterilized needle or instruments  
   Yes [ ] No [ ]  
6. Can these be transmitted at the barber’s shop through hair cutting or armpit shaving  
   Yes [ ] No [ ]  
7. Can these be transmitted by sex  
   Yes [ ] No [ ]  
8. Can these be transmitted by un-screened blood transfusion  
   Yes [ ] No [ ]  
9. Are you aware of any clinical feature of these diseases  
   Yes [ ] No [ ]  
10. Are you aware that most patients remain asymptomatic  
    Yes [ ] No [ ]  
11. Can these diseases cause liver cancer  
    Yes [ ] No [ ]  
12. Is there any treatment of these diseases  
    Yes [ ] No [ ]  
13. Do you know about any vaccines in these diseases  
    Yes [ ] No [ ]  
14. What is your source of knowledge (Newspaper, Radio, Television, family physicians or any other)  
    Yes [ ] No [ ]  
15. Have you or any other family member underwent any investigation is this regard  
    Yes [ ] No [ ]

The information and answers were recorded on the performa, and the data compiled and analyzed.

**RESULTS**

Amongst the 500 patients questioned, 280 (56%) were males and 220 (44%) females, making a male to female ratio of 1.3:1. The average age of the patients was 33.5 years; majority (78%) being seen between 10–40 years of age. Out of the total patients 355 (71%) were married. Awareness regarding different questions about Hepatitis B and C among the patients is shown in Table I.

**Table I. Awareness of the patients regarding Hepatitis B & C**

<table>
<thead>
<tr>
<th>Qs. No.</th>
<th>Aware patients</th>
<th>P-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>47(94.9%)</td>
<td>0.001</td>
</tr>
<tr>
<td>2</td>
<td>183(36.6%)</td>
<td>0.001</td>
</tr>
<tr>
<td>3</td>
<td>361(72.2%)</td>
<td>0.001</td>
</tr>
<tr>
<td>4</td>
<td>29(53.8%)</td>
<td>0.001</td>
</tr>
<tr>
<td>5 &amp; 6</td>
<td>79(17.5%)</td>
<td>0.001</td>
</tr>
<tr>
<td>7</td>
<td>44(31.6%)</td>
<td>0.001</td>
</tr>
<tr>
<td>8</td>
<td>17(53.4%)</td>
<td>0.001</td>
</tr>
<tr>
<td>9</td>
<td>362(72.4%)</td>
<td>0.001</td>
</tr>
<tr>
<td>10</td>
<td>12(50.4%)</td>
<td>0.001</td>
</tr>
<tr>
<td>11</td>
<td>7(50.4%)</td>
<td>0.001</td>
</tr>
<tr>
<td>12</td>
<td>16(36.4%)</td>
<td>0.001</td>
</tr>
<tr>
<td>13</td>
<td>124(24.8%)</td>
<td>0.001</td>
</tr>
<tr>
<td>14</td>
<td>35(73.4%)</td>
<td>0.001</td>
</tr>
<tr>
<td>15</td>
<td>36(73.4%)</td>
<td>0.001</td>
</tr>
</tbody>
</table>
As regards to the educational level: 69.5% males and 84.1% females were uneducated, 20.4% males and 10% females had primary education, and 10% males and 5.9% females were educated beyond the primary level. Data showed that the knowledge and awareness about most aspects of the diseases was more amongst individuals who are educated (increasing with the level of education), especially in information regarding cause, prevalence, organ involvement, presentation and vaccination (Table II). Figures also revealed decreased knowledge of even educated persons concerning route of transmission, transmission by unsafe sex, or complication of the disease like malignancy (Table II). Both educated and uneducated persons were mostly relying on homeopathic or ayurvedic medicine, thinking them to be more accurate and reliable in treating the hepatitis. Uneducated people were either unaware or had only little information in most of the parameters except in prevalence of disease, organ of involvement and clinical presentation.

DISCUSSION

The incidence of Hepatitis B and C, the two deadly and dreadful diseases, appears to be increasing in most parts of the world, mostly in the under developed countries. Pakistan is no exception, and the disease is rampant in most parts of the country, especially in the rural areas. The main factors contributing to the continuous and rapid spread of these diseases are lack of education, reuse of syringes and injections, unchecked blood transfusions, use of improperly sterilized instruments in operation theatres and dental clinics.

In this study we have assessed the knowledge and attitude of people of this area, most of them were illiterate (76%) and working in outfields. They belonged to poor or very poor socioeconomic status. Females were more illiterate and had lesser knowledge than males, though an Aga Khan University Hospital study mentioned that most women had more knowledge about these diseases than men. However, their study comprised of mostly educated individuals.

The knowledge of the study group was significantly low concerning the route of transmission, complications, and allopathic treatment. One more aspect of this study was the casual attitude of even educated persons regarding these deadly diseases. Even people educated beyond primary level were ignorant about matters like use of unsterilized instruments and syringes, unchecked blood transfusion, diagnosis once they developed jaundice.

### Table II. Comparison of Knowledge and Attitude of Patients regarding Hepatitis B and C in relation to Educational level (M=Males, F=Females)

<table>
<thead>
<tr>
<th>Question Number</th>
<th>Uneducated Pts.</th>
<th>Primary Level Pts.</th>
<th>Beyond Primary Level</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M-195</td>
<td>F-185</td>
<td>M-57</td>
</tr>
<tr>
<td>1</td>
<td>00.0%</td>
<td>00.0%</td>
<td>14.0%</td>
</tr>
<tr>
<td>2</td>
<td>47.6%</td>
<td>7.0%</td>
<td>49.1%</td>
</tr>
<tr>
<td>3</td>
<td>73.3%</td>
<td>61.1%</td>
<td>80.7%</td>
</tr>
<tr>
<td>4</td>
<td>1.5%</td>
<td>0.5%</td>
<td>15.8%</td>
</tr>
<tr>
<td>5 &amp; 6</td>
<td>8.7%</td>
<td>1.6%</td>
<td>50.9%</td>
</tr>
<tr>
<td>7</td>
<td>1.5%</td>
<td>0.5%</td>
<td>29.8%</td>
</tr>
<tr>
<td>8</td>
<td>0.5%</td>
<td>0.0%</td>
<td>5.3%</td>
</tr>
<tr>
<td>9</td>
<td>72.8%</td>
<td>59.4%</td>
<td>92.2%</td>
</tr>
<tr>
<td>10</td>
<td>1.0%</td>
<td>0.0%</td>
<td>7.0%</td>
</tr>
<tr>
<td>11</td>
<td>0.5%</td>
<td>0.0%</td>
<td>3.5%</td>
</tr>
<tr>
<td>12</td>
<td>1.0%</td>
<td>0.5%</td>
<td>7.0%</td>
</tr>
<tr>
<td>13</td>
<td>8.7%</td>
<td>1.1%</td>
<td>87.7%</td>
</tr>
<tr>
<td>14</td>
<td>6.6%</td>
<td>0.0%</td>
<td>12.3%</td>
</tr>
<tr>
<td>15</td>
<td>1.5%</td>
<td>0.5%</td>
<td>12.3%</td>
</tr>
</tbody>
</table>
and use of allopathic medicines.

One of the main factors responsible for the spread of these diseases is the use of unsafe injections by quacks and even doctors. Khan et al.\textsuperscript{13} from Karachi mentioned that 94\% of their study patients were receiving unsafe injections. Certainly, the figures will be much higher in the rural and remote areas of the Sindh province. Another factor contributing to the spread of these diseases is unchecked blood transfusion. Most blood banks provide blood from professional blood donors and lack proper equipment for checking blood for these diseases. Luby et al.\textsuperscript{14} revealed that blood banks provide 50\% blood from professional donors, and they do not have any proper equipment to check it for Hepatitis viruses.

Keeping these facts and figures in mind, and the rampant spread of Hepatitis B and C, a mass campaign is needed at the national level. Different ways and means are required to be adapted to prevent the spread on an emergency basis. This includes health education regarding factors leading to the spread of these diseases, especially through electronic and the print media. Lectures, seminars and walks, etc. should be arranged at teaching institutions and public places. Vaccinations for Hepatitis B should be freely provided by the government, in the same way as polio eradication program.

On a long-term basis, basic facilities like education, health, proper water supply and sanitation should be provided to remote areas of the country. It is also the duty of doctors specially general practitioners, nurses and dispensers to play an important role in prevention and education of these diseases.

**CONCLUSION**

In this study we discovered a significant lack of knowledge and poor attitude of people towards Hepatitis B and C, especially concerning important aspects like risk factors, vaccination and treatment. Most people, even educated ones, were using homeopathic or Ayurvedic medicines for the treatment of these diseases. Hence there is a dire need to increase public awareness both at local and national level by the government and the NGOs.

**REFERENCES**


Yamazhan et al. in a multi-centre cross-sectional study showed that nursing students had a low level of knowledge about nature of the disease and its complications [22Yamazhan T, Durusoy R, Tasbakan MI, et al. Published online 2014 June 25. Knowledge, Attitude and Practice of Dentists Towards Patients With HIV, Hepatitis B and Hepatitis C Infections 1. 1,* Hamideh Kadeh ; Shirin Saravani ; Parviz Golzari.Â Can hepatitis B virus and hepatitis C virus infections result in chronic hepatitis and liver cancer? Is a vaccine for hepatitis C available? Should individuals with hepatitis B or C infection receive dental treatment in hospital? Is the risk of hepatitis C infection after a needlestick about 10%-20%? Is vaccination against hepatitis B an efficient protection against infection after an infected needlestick? Is transmission after needlestick higher for HBV in comparison with HIV? Is prevalence of HBV lower than 1% in Iranian population?