PROFILE OF VIRAL HEPATITIS IN SAUDI ARABIA

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Outline

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Viral hepatitis is caused by infection with any of at least five distinct viruses, of which hepatitis A virus (HAV), hepatitis B virus (HBV), and hepatitis C virus (HCV) are the three most commonly identified in the world.

In Saudi Arabia, HBV and HCV are major causes of disease requiring liver transplantation and of hepatocellular carcinoma.

The epidemiology of viral hepatitis in Saudi Arabia has undergone major changes, concurrent with major socioeconomic developments over the last two to three decades.

This disease represents a major public health problem in Saudi Arabia resulting in the need for considerable healthcare resources.
Objectives:

- To estimate the prevalence of hepatitis A, B and C in Saudi Arabia from 2006 to 2010.

- To determine which region in Saudi Arabia had the highest prevalence rate for which one of the hepatitis viruses A, B or C.

- To determine which age group is most commonly infected by which one of the hepatitis viruses A, B or C.
Methodology:

Study Design:

Retrospective cross-sectional study.

Study Setting:

The 13 administrative regions of Saudi Arabia.
Study Sample:

Total no. of reported cases (44,679)

- HBV: 23705
- HCV: 13408
- HAV: 7566
The reported cases of viral hepatitis were conducted based on the reports of The Ministry of Health in Saudi Arabia about Hepatitis A, B and C infections in all the regions of Saudi Arabia including all the age groups from the period of January 2006 to December 2010.
Data Analysis:

- Data was analyzed using SPSS V.19. was used to process the data and analyze it.
- Analysis of the data included running Chi-Square tests for each region in Saudi Arabia and for every age group that got infected with which one of the types of the hepatitis viruses A, B or C.
- All these were applied to assess the statistical relationship.
- P-value < 0.01 was considered statistically significant.
Results
Total number of viral hepatitis infections in the kingdom of Saudi Arabia from 2006 to 2010

Total no. of reported cases (44,679)

- **HAV**: 7566
- **HCV**: 13408
- **HBV**: 23705

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<th>HBV</th>
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<td>13408</td>
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Total number of cases by Age group

- <1
- 1 - 4 years
- 5 - 14 years
- 15 - 44 years
- >45 years

Graph showing the distribution of cases across different age groups with categories for HBV, HCV, and HAV.
Summary of the results: P-value<0.01 is considered statistically significant.

- HBV was the most frequent viral hepatitis type reported (n = 23705, 50.7%), followed by HCV (n = 13408, 33%) and HAV (n = 7566, 16.2%).

- The highest prevalence rate of both HAV and HCV was in 2006 but for HBV, it was in 2008.

- HBV was the most common viral hepatitis that was affecting the adult patients aging from 15-44 years of age followed by HCV in elderly patients aging >45 years of age and then HAV in children aging from 5-14 years of age.

- Jeddah was the most common region affected by both HBV and HCV while Najran was the most common region affected by HAV.
Discussion

- The Incidence of viral hepatitis is higher in Saudis in comparison to none Saudis, especially for HAV, which could be attributed to the fact that HAV is mainly a disease of young people with the majority of patients are younger than 14 years of age.
Our study has confirmed that HAV is most commonly affect children with more than 60% of HAV cases are patients younger than 14 years, also it confirmed that HBV is most commonly affect adults with 69% of HBV cases are patients aged from 15 to 44 years, and finally it confirmed that HCV is most commonly affect elderly with more than 59% of HCV cases are patients older than 45 years.
Conclusions:

- Despite significant changes in the prevalence of viral hepatitis A, B and C, it remains a major public health problem in Saudi Arabia.

- It showed a significant decline in the last two decades that could be attributed to the vaccination programs and the improved health facilities.
Recommendations:

- Further researches are needed to identify the risk factors making a specific age group or a specific region in Saudi Arabia targeted for which of any types of hepatitis viruses.
References:


Acknowledgements:

- King Saud University, Riyadh, Saudi Arabia.
- Biomedical Research Journal, An international Journal of Medical Sciences at India.
Thanks for your kind attention and listening.