# EPIDEMIOLOGY AND CLINIC MANIFESTATIONS OF HEPATITIS IN BIHOR COUNTY

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**Abstract**

*One of the more common causes of acute hepatitis is hepatitis A virus. This study is the result of the observation of 440 cases of hepatitis A admitted the Clinical Hospital of Infectious Diseases Oradea during the year 2009. Incidence of hepatitis A in population of Bihor county was 64/100,000 inhabitants. Prevalence of HAV was higher in children (299 cases – 68%), than in adults (141 cases – 32%).*

*Out of the total cases of HAV the majority were females (256 cases – 58%), the number of males was lower (184 cases – 42%). The manifestations of HAV cases were very different, from jaundice, with dyspeptic manifestations, to fever, abdominal pains, headache, myalgia, neurological affections, and erruptions.*

*Improved sanitation and the Hepatitis A vaccine are the most effective ways to combat the disease.*

**Key words:** hepatitis A virus, jaundice, improved sanitation, hepatitis A vaccine.

## INTRODUCTION

One of the more common causes of acute hepatitis is hepatitis A virus. Since the application of accurate serologic investigations in the 1980s, the epidemiology, clinical manifestations, and natural history of hepatitis A have become apparent.

Improvements in hygiene, public health policies, and sanitation have had the greatest impact on this disease, and vaccination and passive immunization have successfully led to some reduction in illness in high-risk groups.

## MATERIAL AND METHODS

This study is the result of the observation of 440 cases of hepatitis A admitted the Clinical Hospital of Infectious Diseases Oradea during the year 2009. Quantification of population affected by prolonged forms of hepatitis A (HAV) in Bihor county during the period 01.01.2009 - 31.12.2009 according to age, sex, rural area, and urban area was done. Statistic analysis established the reported of incidence within the population of Bihor county (603,000 inhabitants).

We have made the classification of clinical forms of HAV. Study of incidence of cases with HAV correlated with location, seasonality, and existence of any rivers or water bodies was done.

Epidemic investigations were performed by surveys, identifying circumstances leading to occurrences of affections, focal family existence, onset of diseases, establishing the correct time for incubation period, selecting and registering contacts and emphasizing the elements of contaminated media and occupational place data.

**RESULTS AND DISCUSSIONS**

There were identified 440 cases of acute HAV during the year 2009. Incidence rate of prolonged forms was 14% out of the total cases of HAV.

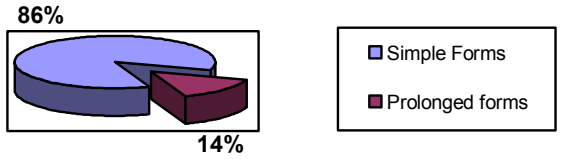


Fig. 1. Prevalence of HAV Prolonged Forms

Incidence of hepatitis A in population of Bihor county was 64/100,000 inhabitants. Prevalence of HAV was higher in children (299 cases – 68%), than in adults (141 cases – 32%).

Out of the total cases of HAV the majority were females (256 cases – 58%), the number of males was lower (184 cases – 42%).

The patients coming from rural areas represented the majority of cases (312 cases – 70.9%). The repartition of cases shows the predominance of HAV – cases in the area of Crişul Repede and urban area of Oradea.

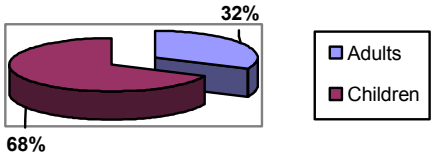


Fig. 2. Prevalence of HAV Prolonged Forms According to Age

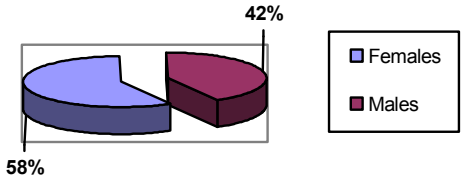


Fig. 3. Prevalence of HAV Prolonged Forms According to Sex

Total number of cases of HAV - prolonged forms in the city of Oradea was 26, representing 44.82%, and in Crişul Repede area there were 12 cases representing 20.68% of total. Evolution of prolonged forms of HAV was influenced by various factors like age, sex, associated diseases, water, sunlight, and heat. We observed an increased number of cases in spring and autumn, as in the following graphic.

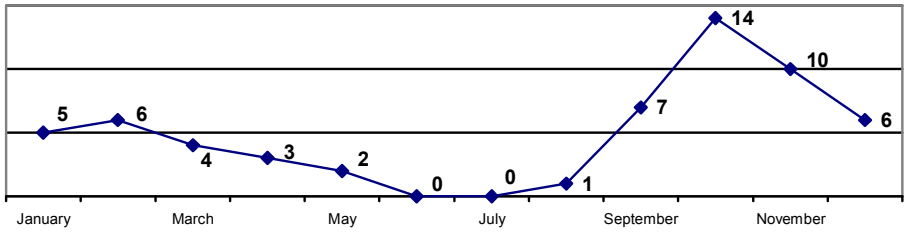


Fig. 4. Seasonality of HAV

The increased incidence of HAV is favorized by the human contacts in schools, children collectivities, where the conditions of sanitation are poor.

Out of the total of 440 HAV cases, 65 evolved in prolonged forms, representing 14.77%, 45 cases presented simple prolonged forms, representing 69.23%, 20 of the cases had undulant forms, representing 30.77% of total prolonged forms. Undulant forms were dominant in adults as compared to children, simpler forms of HAV in adults presented approximately equal proportion in each sex, representing 50.4% in males and 49.6% in females.

The manifestations of HAV cases were very different, from jaundice, with dyspeptic manifestations, to fever, abdominal pains, headache, myalgia, neurological affections, and erruptions.

*Table 1*

Clinical Manifestations of HAV

| Clinical manifestations of HAV | Number of cases | Percent |
|---|---|---|
| Jaundice | 410 | 93.18% |
| Fever or subfebrilities | 105 | 23.86% |
| Dyspeptic manifestations | 103 | 23.40% |
| Abdominal pains | 67 | 15.22% |
| Asthenia | 60 | 13.63% |
| Myalgia | 20 | 5.00% |
| Headache | 19 | 4.54% |
| Erruptions | 6 | 1.36% |
| Neurological manifestations | 5 | 1.13% |

The majority of cases presented icteric forms (93.18%), the duration of icteric forms varied from 4 to 52 days, averaging 28 days and the duration of hospitalization varies from 14 to 56 days, averaging 35 days.

Unlike hepatitis B and hepatitis C, hepatitis A does not cause chronic disease. Although the liver becomes inflamed and swollen, it heals completely in most people without any long-term damage. Once a person contracts hepatitis A, they develop lifelong immunity, and rarely contract the disease again. Improved sanitation and the Hepatitis A vaccine are the most effective ways to combat the disease.

**CONCLUSIONS**

1) There were identified 440 cases of acute HAV during the year 2009.
2) Incidence of hepatitis A in population of Bihor county was 64/100,000 inhabitants. Prevalence of HAV was higher in children (299 cases – 68%), than in adults (141 cases – 32%).
3) Out of the total cases of HAV the majority were females (256 cases – 58%), the number of males was lower (184 cases – 42%).
4) The patients coming from rural areas represented the majority of cases (312 cases – 70.9%). The repartition of cases shows the predominance of HAV cases in the area of Crişul Repede and urban area of Oradea.
5) 65 cases evolved in prolonged forms, representing 14.77%, 45 cases presented simple prolonged forms, representing 69.23%, 20 of the cases had undulant forms, representing 30.77% of total prolonged forms.
6) The majority of cases presented icteric forms (93.18%), the manifestations of HAV forms were very different, from jaundice, with dyspeptic manifestations, to fever, abdominal pains, headache, myalgia, neurological affections, and erruptions.
7) Hepatitis A does not cause chronic disease.

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