

THE SEROEPIDEMIOLOGY OF HEPATITIS A VIRUS IN AMMAN, JORDAN

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SUMMARY

Hepatitis A virus (HAV) has emerged as an important public health problem in many countries of the Middle East region and Jordan is no exception. From January 1991 to December 2001, a total of 1015 patients were diagnosed at Al-Battikhi Medical Laboratories. Samples were collected at seventeen private laboratories distributed throughout areas of the Governorate of Amman (capital of Jordan). A significant variation ($P=0.03$) was obtained between number of HAV cases and year. Seasonal variation in HAV cases was seen throughout the study period with maximal rates in the spring and summer months ($P<0.001$). The highest incidence rate (9.6/100,000 population) was detected in the year 1993 and the lowest incidence rate (1.1/100,000 population) was found in the year 2001. There was a significant difference ($P<0.0001$) between number of HAV cases and age group. The highest number of cases 166 (16.4%) was reported for age group 5-14 years and the lowest number of cases 18 (0.02%). Male to female ratio was 1.25: 1. There was no significant sex variation ($P=0.28$). A significant variation ($P=0.006$) was observed between number of HAV cases and districts. The present results suggested a link between the age groups, year, month and occurrence of HAV infection. Male to female ratio indicates no significant sex variation.

KEY WORDS: HAV, epidemiology, incidence rate

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Introduction

Hepatitis A virus (HAV) infection is a significant public health issue commonly found in many developing countries (Santos *et al.*, 2002; Villar *et al.*, 2002; www.twinrix.com/epidemiology_01.htm, 2002; Poovorwan *et al.*, 1993). Hepatitis A virus is transmitted primarily through person-to-person contact by fecal-oral route (Villar *et al.*, 2002) and by consumption of contaminated food (Formiga-Cruz *et al.*, 2002; Dubois *et al.*, 2002 Goh *et al.*, 1987; Goh *et al.*, 1984) and /or water (Yayli *et al.*, 2002). The infection is usually asymptomatic in children and only a small percentage has clinical hepatitis of varying severity (Poovorwan *et al.*, 1993). Infection with the (HAV), especially in children less than 6 years of age, is usually asymptomatic and fre-

quently serves as a reservoir of infection for adults (www.twinrix.com/epidemiology_01.htm, 2002). Hepatitis A infection becomes more symptomatic with increasing age (Poovorwan *et al.*, 1993). For decades, HAV has been a very rare disease in most industrialized countries (Baumgarten, 1995). Accordingly, immune reactivity in the adult population is low and susceptibility for the infection is high. Thus, endemic accumulation of HAV diseases is possible (Baumgarten, 1995). Hepatitis A virus is a health problem in countries where seroepidemiology shows changes from hyper-endemicity to intermediate endemicity (Poovorwan *et al.*, 1997). Prevalence rates of (HAV) are especially high in Africa, the Caribbean South and Southeast Asia, and the Middle East. HAV has emerged as a major public health problem in many countries of the