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Epidemiologic Characteristics of Hepatitis A Infection

충남대학교병원 내과

*박환희, 이주호, 이희성, 류우선, 은혁수, 주종석, 이엄석, 김석현, 이병석

Background/Aims: As one of the most common causes of acute hepatitis, the number of HAV infection had been significantly increased from the early 1990s to the late 2000s. During the last several years, however, the improved socioeconomic conditions and interest for personal hygiene have contributed to the changes of incidence and epidemiology of HAV infection. It has been well established that the clinical expression and the severity of disease is closely related to the age. Therefore, this study aimed to assess whether the epidemiology of HAV infection has been changed over the last decade. **Methods:** Clinical information and data of the patients with acute HAV infection were collected retrospectively using an electronic medical record. We recruited consecutively enrolled 625 patients who were diagnosed by serological tests with positive anti-HAV IgM at the Chungnam National University Hospital between January 1, 2008 and December 31, 2017. We divided the patients into two five-year-period groups, in order to assess epidemiological changes; 2008-2012 cohort and 2013-2017 cohort. The first cohort consisted of 473 patients and the second cohort consisted of 152 patients. **Results:** In comparison with the patients in the early five years, the incidence of HAV infection had been obviously decreased during the late five years. The mean age of 2008-2012 cohort was 31.2 years (range 16-56), and that of 2013-2017 cohort was 34.7 years (range 15-54). Over the period of 2008-2012, 45.5% of the patients were twenties and 11.5% were forties. In that same period, 33.2% of the patients were diagnosed in the summer and 13.7% in the fall. However, over the next five years, 25.7% were twenties and 25.0% were forties. And, 18.4% were diagnosed in the summer and 25.7% in the fall. The differences between two cohorts by age groups and seasons were statistically significant ($\chi 2=29.58$; $P<0.001$ and $\chi 2=18.62$; $P<0.001$, respectively). **Conclusions:** Although the overall incidence of HAV infection has been decreased with time, the clinical characteristics apparently show the epidemiological shift to the older ages. Modification of strategies for HAV vaccination could be encouraged.

Table 1. The epidemiologic characteristics of acute hepatitis A

Characteristic	2008-2012 (n=473)	2013-2017 (n=152)	Total (n=625)
Sex			
Male	301 (63.6)	87 (57.2)	388 (62.1)
Female	171 (36.2)	65 (42.8)	237 (37.9)
Mean age, yr	31.2	34.7	32.1
Age[1]			
~19	15 (3.2)	4 (2.6)	19 (3.0)
20~29	215 (45.5)	39 (25.7)	254 (40.6)
30~39	180 (38.1)	64 (42.1)	244 (39.0)
40~49	55 (11.6)	38 (25.0)	93 (14.9)
50~59	8 (1.7)	7 (4.6)	15 (2.4)
60~	0 (0)	0 (0)	0 (0)
Season[2]			
Spring	171 (36.2)	56 (36.8)	227 (36.3)
Summer	157 (33.2)	28 (18.4)	185 (29.6)
Fall	65 (13.7)	39 (25.7)	104 (16.6)
Winter	80 (16.9)	29 (19.1)	109 (17.4)

Values are presented as number (%), unless indicated otherwise.
[1]Age: $\chi^2 = 29.58$, $P < 0.001$. [2]Season: $\chi^2 = 18.62$, $P < 0.001$.

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Hepatic hydatid cyst: A case report

[1]가톨릭중앙의료원 내과학교실, [2]창원파티마병원

*정화영[1,2], 진수신[2]

Hydatid cysts are caused by an infestation with larval tapeworms of the genus Echinococcus. The disease is endemic in developing countries, especially Mediterranean countries, the Middle East, Central Asia, China, Russia, South America. It has rarely been reported from immigrant worker in Korea. Therefore, we report a case of hepatic hydatid cyst in a 27-year-old female. She referred with abdominal pain that had persisted for the past two months. The patient was a foreign worker from Mongolia. Physical examination was unremarkable and blood tests showed peripheral blood eosinophilia and elevated liver enzymes. Serological testing for echinococcal IgG was positive. Abdominal ultrasonography showed well-circumscribed cystic mass with septation in the liver (Fig1-1). Abdominal computed tomography scan revealed a 7.5cm sized cystic mass in the right hepatic lobe (Fig1-2). The patient took antihelminthic prophylaxis with albendazole for 1 week before surgery. Surgical resection was performed for complete removal. Grossly, the mass showed a 9×9×4 cm-sized unilocular fibrous cyst containing several membranous cysts (Fig1-3). After uncomplicated postoperative recovery, the patient was discharged with albendazole 400 mg twice daily for 4 weeks. The hydatid cyst is an important disease to be considered in the differential diagnosis of cystic lesions in the liver, particularly in those who have lived in endemic areas. It is important to make an early correct diagnosis based on the typical image findings to treat early before the rupture of the cyst, and this is associated with low morbidity and mortality. Current surgical resection combined albendazole are effective treatments for hepatic hydatid cyst, associated with low recurrence rates.

Fig1. (1) Abdominal ultrasonography. The large cystic lesion has intracystic irregular echogenicities of inner cyst wall infoldings with separation of the hydatid membrane (white arrow) and several tiny mural ovoid nodules. (red arrow) (2) Abdominal Computed tomography scan. A cystic mass with internal septation is present in the right hepatic lobe. (3) Glossly, the open mass showed many hydatid cysts after surgery