

Gastrointestinal and Hepatic Problem in JC Virus Infection

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Abstract

JC virus is a pathogenic virus that is little mentioned in the literature. This infection might cause the neurological problem in immunocompromised host. However, there are also other clinical manifestations of JC virus infection. In this editorial article, the gastrointestinal and hepatic problem in JC virus infection are discussed.

Keywords: JC virus, gastroenterology, hepatology.

INTRODUCTION

JC virus is a pathogenic virus that is little mentioned in the literature. This infection might cause the neurological problem in immunocompromised host [1 -2]. It is also mentioned for the possible association with carcinogenesis process in human [2]. However, there are also other clinical manifestations of JC virus infection. In this editorial article, the gastroenterology and hepatology problem in JC virus infection are discussed.

GASTROINTESTINAL PROBLEM IN JC VIRUS INFECTION

JC virus can be detectable in stool of health human subjects either childhood or adult [3 - 4]. Noted that gastrointestinal tract might be a possible site of polyomavirus persistence in human beings [3]. Nevertheless, there is still non confirmation for the association between JC virus infection and gastrointestinal pathology. However, the JC virus infection might superimpose the patient with ulcerative colitis [5] or Crohn's disease [6 - 7]. Finally, it is also proposed for the possibility that JC virus might induce colon carcinogenesis [8]. In a recent animal model study, JC virus is detectable in gastric epithelium [9].

HEPATIC PROBLEM IN JC VIRUS INFECTION

Similar to gastrointestinal problem, there is still no present conclusion on the hepatic disorder due to JC virus infection. However, the JC virus infection is reported to share common epidemiological endemic setting with hepatitis C virus and hepatitis A virus infections [10 - 11]. Nevertheless, it is reported that JC virus infection might occur in patient with liver transplantation and might concurrently occur with recurrent hepatitis C infection [12].

CONCLUSION

JC virus exists in human gastrointestinal tract. Nevertheless, there is still no clear evidence that this virus can cause gastrointestinal or hepatic problem. As a little studied pathogen, further studies is required on the exact pathogenesis of this virus.

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