P-105

상염색체 우성 다낭신 환자에서 Serratia plymuthica 균에 의한 간낭종 감염 1례

서울대학교 의과대학 내과학교실[1], 서울대학교 의과대학 핵의학과교실[2], 을지대학교 의과대학 내과학교실[3]

박혜인조[1] · 황영환[3] · 이호영[2] · 문승환[2] · 강건욱[2] · 김동기[1]
오국환[1] · 주권욱[1] · 김연수[1] · 한진석[1] · 김성권 [1] · 안규리[1]

A Case of Hepatic Cyst Infection with Serratia Plymuthica in Autosomal Dominant Polycystic Kidney Disease Patient

Hayne Cho Park[1], Young-Hwan Hwang[3], Ho Young Lee[2], Seung Hwan Moon[2]
Keon Wook Kang[2], Dong Ki Kim[1], Kook-Hwan Oh[1], Kwon Wook Joo[1]
Yon Su Kim[1], Jin Suk Han[1], Suhnggwon Kim[1], Curie Ahn[1]

Department of Internal Medicine[1] Seoul National University College of Medicine
Department of Nuclear Medicine[2] Seoul National University College of Medicine
Department of Internal Medicine[3] Eulji University College of Medicine

Approximately 30-50% of autosomal dominant polycystic kidney disease (ADPKD) patients experience more than one renal or hepatic cyst infections in their lifetime. However, cyst infection is not easy to diagnose in ADPKD patients because of vague symptoms and negative culture results. Several imaging studies have been used to identify infected cysts: ultrasound (US), computed tomography (CT), magnetic resonance (MR) imaging, and FDG-PET. Unfortunately, none of them has been proven to be effective in the diagnosis. Here, we present a case of hepatic cyst infection with unusual organism, Serratia plymuthica, diagnosed by WBC-PET CT guided cyst aspiration.

A 61-year-old woman with ADPKD was admitted because of malaise, fever, and chills. She had a history of recurrent renal and hepatic cyst infection, for which she had been treated with antibiotics for a long time. Upon admission, the body temperature was 38.3℃. The white blood cell count was 6,300/μL and the C-reactive protein level was 18.43 mg/dL. The urine sediment showed mild proteinuria without pyuria. No causative organisms were isolated. She did not show any focal abdominal tenderness over her kidneys or liver. Therefore, we performed imaging studies to localize infected cysts. The CT scan showed focal enhancing lesion in the right lobe of the liver. In addition, the kidney MR imaging showed renal cyst wall enhancement suggesting both hepatic and renal cyst infection. Considering her recurrent cyst infection history, we decided to perform WBC-PET CT scan to precisely localize the infected cyst. The WBC-PET CT scan revealed focal WBC accumulation in the S7 segment of the liver. The US-guided aspiration was performed, and 40 milliliters of pus was evacuated from a position identical to the WBC-PET CT uptake. The culture study revealed Serratia plymuthica. We treated her with vancomycin and cefotaxime for 6 weeks. The fever dropped 4 days after drainage and antibiotics therapy and the CRP level returned to normal level after 5 weeks.

Serratia species rarely cause serious infection in human beings, and most previous reports suggest that Serratia plymuthica causes nosocomial infection after central venous catheter insertion or urinary tract instrument usage. This is the first time to report Serratia plymuthica cyst infection in ADPKD patient without any known risk factors. Also this case suggests the usefulness of WBC-PET CT scan compared to other imaging modalities.

Key Words : 낭종감염, 상염색체 우성 다낭신, 양전자방출 단층촬영
Cyst infection, ADPKD, WBC-PET CT