P-100

신장이식환자에게서 발생한 폐렴의 진단에 기관지내시경의 진단적 효용성

인제대학교 부산백병원 신장내과[1], 인제대학교 부산백병원 병리과[2]

김현주[1], 장미진[1], 권정인[1], 박석주[1], 강선우[1], 김영훈[1], 강미선[2]

A Role of Early Bronchoscopy for Pneumonia Diagnosis and Treatment in Kidney Transplant

Hyun Ju Kim[1], Mi Jin Jang[1], Jung In Kwon[1], Seok Ju Park[1]
Sun Woo Kang[1], Yeong-Hoon Kim[1], Mi Sun Kang[2]

Department of Nephrology[1], Inje University Busan Paik Hospital
Department of Pathology[2], Inje University, Busan Paik Hospital

Background: Immunosuppression in kidney transplant is associated with an increased risk for opportunistic infection. Pneumonia is the most common life-threatening infection. Early and accurate diagnosis is important for active treatment. This study assessed the diagnostic rate of pulmonary tuberculosis and pneumocystis jiroveci between sputum and fiberoptic brochoscopy(FBS) with bronchoalveolar lavage(BAL).

patients and Methods: We retrospectively reviewed 30 pneumonia patients occurred in single transplant center from January 1, 2008 through May 30, 2010. Group A performed FBS, group B didn't. The positive rate of smear for acid fast bacilli, polymerase chain reaction(PCR) for acid fast bacilli and PCR for pneumocystis jiroveci were analyzed between group A and group B. The results of sputum and FBS with BAL were compared to the treatment results.

Results: There were 8 cases who underwent FBS with BAL among 30 patients with suspected pneumonia after kidney transplantation. The median time to development of pneumonia after transplant was 23.7 months in group A. The causes of pneumonia in group A were bacteria (3/8), pneumocystis jiroveci (2/8), tuberculosis (1/8), and cytomegalovirus (2/8). The pathogens of 2 among 3 patients with bacterial pneumonia were cultured in the BAL culture. All of pneumocystis jiroveci pneumonia were diagnosed by sputum PCR in group A. Mycobacterium tuberculosis was positive result from sputum PCR and BAL PCR in group A. Moreover chest computed tomography finding was consistent with M. tuberculosis.

conclusion: This result presents that the sensitivity of FBS with BAL to detect pathogen is not higher than sputum smear and culture. However, FBS with BAL is an important diagnostic procedure to find causative pathogen in kidney transplant recipients with suspected pneumonia. The small study sample limits our observations. Following the protocol of FBS with BAL, additional study about the usefulness of FBS is required.

Key Words: 신장이식, 폐렴, 기관지내시경
Kidney transplant, Pneumonia, Brochoscopy