

Abstract Type : Oral
Presentation No. : OR 01 DL-06

End stage renal disease and risk of tuberculosis: a nationwide cohort study

Yu-Mi Yang, Soon Kil Kwon, Hye-Young Kim Kim, Sun Moon Kim, Hyunjeong Cho
Department of Internal Medicine-Nephrology, Chungbuk National University Hospital, Korea, Republic of

Objectives:

Tuberculosis (TB) poses a global public health threat and remains one of the major causes of death from infectious diseases. ESRD requiring dialysis is recently highlighted because of high global prevalence, which is caused by increased incidence of diabetes and aging population in both developing and developed countries. The aim of the current study was to examine the incidence of TB in a large population of dialysis patients in South Korea.

Methods:

The data on patients undergoing dialysis were obtained from Korean National Health Information database. This database, which contains reimbursement record from all medical facilities. We also analyzed KNHIS National Sample Cohort (NSC) originating from the National Health Information database established by the KNHIS in 2011 which approximated 1,000,000 individuals, extracted by sampling from the 2002 records of National Health Information database.

Results:

A total of 59,584 patients were newly diagnosed with ESRD between 2004 and 2013. Total 582 patients were newly diagnosed with TB (457 (0.8%) patients in the dialysis cohort and 125 (0.2%) patients in the control cohort). TB incidence in the dialysis cohort was 215/100,000 person-years, whereas in the control was 45/100,000 person-years. The ESRD were associated with a significantly higher risk of tuberculosis (IRR 4.80, 95% confidence interval [CI] 3.95-5.87). For all the subgroup analysis, the IRR of ESRD patients with TB was significantly higher than that of controls except age of ≥ 80 years. The average interval from onset of ESRD to diagnosis of TB was 2.0 years (1.7 years for dialysis cohort and 3.1 years for control cohort).

Conclusions:

We found consistent epidemiological evidence demonstrating an increased risk of TB among patients with ESRD on dialysis. Patients undergoing dialysis should be monitored for development of TB.