DIAGNOSTIC ROLE OF CT ENTEROGRAPHY DIFFERENTIATING INTESTINAL TUBERCULOSIS FROM CROHN’S DISEASE

1Department of Internal Medicine and Institute of Gastroenterology, 2Radiology, Yonsei University College of Medicine
*Yoon Hea Park1, Jae Hee Cheon1, Tae Il Kim1, Won Ho Kim1, Joon Seok Lim2, Sung Pil Hong1

INTRODUCTION/OBJECTIVES: Because intestinal tuberculosis (ITB) has similar clinical, pathological, and endoscopic findings with Crohn’s disease (CD), it is challenge to differentiate from each other. Recently CT enterography (CTE) is widely used to evaluate the small bowel involvement, complication and disease activity in patients with CD. The aim of the present study was to evaluate the diagnostic value of CTE in the distinguishing ITB from CD.

AIMS & METHODS: From January 2006 to January 2011, 67 patients with suspected ITB or CD who received CTE on initial work-up were included in the present study. The final diagnosis was made after histology, microbiology, and follow-up by experimental treatment. The CTE findings were reviewed by two radiologists who were blind to patient histories, endoscopic findings and final diagnosis. In CTE, degree of bowel involvement (number and length), mural change (mural hyperenhancement, stratification, wall thickening, distribution), adjacent mesenteric change (Comb sign, fibrofatty proliferation, fistula, abscess, lymphadenopathy) and peritoneal change (peritoneal thickening, ascites) were assessed. Medical records and endoscopic findings were reviewed retrospectively.

RESULTS: Among 67 patients, 54 patients had CD and 13 patients had ITB. The male-to-female ratio was 46:8 in patients with CD and 5:8 in patients with ITB (p<0.001). The median age at the time of diagnosis was 25 years (range, 14-71 years) in patients with CD and 53 years (range, 31-62 years) in patients with ITB (p=0.001). Patients with CD had significantly more small bowel lesions than patients with ITB (83.3% vs. 46.2%, p=0.009). Segmental involvements (6-40 cm), Comb sign and fibrofatty changes of adjacent mesentery were significantly more common in patients with CD than in patients with ITB (31.5% vs. 0%, p=0.028; 61.1% vs. 7.7%, p=0.001; 35.2% vs. 0%, p=0.013). Mural hyperenhancement, stratification, asymmetric distribution and size of lymphadenopathy (>8 mm) were not significant but frequently observed in CD (83.3% vs. 53.8%, p=0.057; 46.3% vs. 15.4%, p=0.059; 64.4% vs. 16.7%, p=0.070; 27% vs. 16.7%, p=0.079).

CONCLUSION: CTE is a useful diagnostic modality differentiating ITB from CD.