Diagnostic and complication rate of acute appendicitis in kidney transplant recipients compared with general population

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Objectives: Diagnosis of appendicitis in kidney transplant recipients is difficult and complication rate may be higher than general population because immunosuppressed state can mask typical symptoms and position change of appendix after KT.

Methods: Total 2880 cases of kidney transplantation (KT) were reviewed and ten cases of appendicitis were developed. We investigated clinical characteristics, the sensitivity of imaging tools and complication rate of acute appendicitis in KT recipients, and compared those parameters with general population.

Results: The prevalence of appendicitis was 0.34%. The most frequent symptom was right-lower quadrant pain. The diagnostic rate of appendicitis based on clinical symptom and sign was 40% and radiologic finding was 60%. The abdominal CT and sonography was conducted in 60% and 50% of patients, respectively. The sensitivity of CT and sonography was 66% and 40% respectively, which is lower than that of general population (94% and 86%, P= 0.003). Complication rate of appendicitis in KT was almost three times than that of general population (50% vs. 18.6%, P<0.01), and most frequent complication was perforation of appendix.

Conclusions: Diagnostic rate of acute appendicitis in KT recipients is lower and complication rate is higher than general population. Clinical suspicion and radiologic evaluation are needed in KT patients with abdominal pain.