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The Clinical Audit on the Occurrence of Significant Bacteriuria and Outcomes on TWOC Patients

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Introduction

Urinary catheterization is associated with increased risk of bacteriuria and urinary tract infection (UTI). In a national study from AUA, the incidence rate of CAUTI was 5.3 cases per 100 catheterizations in 2010. However, there is no evidence on UTI occurrence rate for patient who undergone trial without catheterization (TWOC). To avoid any adverse consequences from UTI for those patients, we investigated the occurrence of significant bacteriuria and outcomes on TWOC patients.

Objectives

1. To analyze the clinical data and outcomes of TWOC patients
2. To identify the commonest pathogens which induce UTI.
3. To investigate any risk factors of symptomatic UTI on TWOC patients

Methodology

The audit was conducted in retrospective strategies to explore the occurrence of significant bacteriuria and outcomes on TWOC patients.

Patients scheduled to undergo TWOC from July to September 2016 in surgical day ward in PYNEH were recruited. Patients with a urethral catheter in situ for at least three days were eligible. Patients who had suprapubic catheter in placement, UTI, antibiotic used two days before TWOC were excluded from the analysis. Urine for culture after catheter removal was collected. Medical records of patients were reviewed for any UTI symptoms within thirty days after catheter removal.

Result

Clinical data were collected in 271 TWOC patients, with 65 patients excluded due to no urine culture result available. We analyzed on 206 patients including 174 (84.5%) men, with overall mean age of 78. The mean duration of catheterization is 19 days. Bacteriuria could be detected in 20/32 (62.5%) of female patients and in 61/174 (35%) of male patients. ESBL was detected in 4/20 (20%) of female patients and 7/61 (11.5%) of male patient. The mean duration of catheterization for female patients with bacteriuria was 35 days while for male patients was 21 days. The precipitating factors

for UTI such as DM occurred in 15/61 (24.6%) of those male patients with bacteriuria while occurred in 8/20 (40%) in female. The higher rate of UTI in female patient could be related to longer duration of catheterization and the precipitating risk factor.

However, 4/206 (1.9%) of TWOC patients had been readmitted with systemic symptoms and all of them are male with 3 out of 4 (75%) had history of BPH. They were readmitted after discharged day 0 to day 10. ESBL was the most isolated pathogen detected in 2 out of 4 (50.0%) patients. For those male patients with bacteriuria, ESBL was detected in 7/61 (11.5%) and 2/7 (28.6%) of those patient was suffered from symptomatic UTI. For female patients with bacteriuria, 4/20 (20%) of them with ESBL to be isolated in urine culture, but all of them were asymptomatic. Male patients with BPH and ESBL isolated in urine culture showed significant risk. We could prevent symptomatic UTI and any unnecessary readmission by early identify patients who is at risk and start antibiotic before sepsis developed.