

Urinary Tract Infections in Infants: Etiology and Associated Urological Anomalies

Deena Mohammed, MBBS, CABP, MSc* Hasan Mohamed Ali Isa, MBCh, CABP** Ayat Abdul Nasser, MD***

Background: Urinary tract infection (UTI) is common in infants; it might be associated with underlying renal anomalies. Early detection and treatment are important to prevent morbidities and improve patients' outcomes.

Objective: To evaluate the most common underlying organisms and the associated urological anomalies in infants with UTIs.

Design: A Retrospective Study.

Setting: Pediatrics Department, Salmaniya Medical Complex, Bahrain.

Methods: All medical records of infants below one year of age with confirmed UTI admitted between June 2015 and June 2017 were reviewed.

Results: One hundred twenty-five infants with UTI were included in the study, 85 (68%) were males. Median age was 29 days (range 2 to 329). Fever, 74 (59.2%), and neonatal jaundice, 46 (33.6%), were the most common clinical presentation. The most common pathogens were *Escherichia coli* in 69 (55.2%) followed by *Klebsiella pneumoniae* in 44 (35.2%) patients. Extended-spectrum beta-lactamase organisms were found in 44 (35.2%) patients. Recurrent UTI were documented in 15 (12%) patients. Eighty-three (66.4%) patients had renal ultrasound; 29 (23.2%) had urological anomalies. Hydronephrosis was found in 19 (15.2%) patients; 11 (8.8%) had bilateral hydronephrosis and seven (5.6%) had unilateral hydronephrosis. Vesicoureteric reflux (VUR) was seen in 15 (12%) patients; 10 (8%) had bilateral VUR.

Conclusions: *Escherichia coli* remain the most common causative organism for UTIs in infants. Approximately one-third of infants with UTIs had urological anomalies. .