

Clinical and Laboratory Patterns of Urinary Tract Infections Associated with Chronic Constipation Among Children: A Study from Saudi Arabia

Shehab Ahmed Alenazi, SBP*

ABSTRACT

Constipation and urinary tract infections (UTIs) pose significant risks in pediatric populations. This study aimed to investigate the correlation between constipation and UTIs among children, focusing on clinical and laboratory patterns. A cross-sectional study was conducted from June 2022 to December 2024 at Paediatrics and Maternity Hospital, Arar, Saudi Arabia. The study included children under 10 years old with a history of constipation, meeting Rome IV criteria. Cases with organic constipation, recent antibiotic or antispasmodic use, history of anorectal surgery, or urinary tract disorders were excluded. The study enrolled 320 participants (54.6% females, 45.31% males), predominantly aged 1-5 years. Constipation duration analysis showed 59.3% experienced symptoms for less than a year, 28.1% for 1-3 years, and 12.5% for over three years. Concurrent UTI was identified in 54 cases (17%) of constipated children, with a significant relationship to constipation duration ($p = 0.01$). UTI prevalence was higher in girls (32 cases) compared to boys (22 cases). Lower UTI (55%) was more common than upper UTI (45%). Frequency (37%) and dysuria (31%) were the most common symptoms. Dribbling was reported in 25.9% of constipated children with diagnosed UTI. *Escherichia coli* was the predominant pathogen (64.8%), followed by *Klebsiella* (28.9%) and *Pseudomonas* (16.6%). This study demonstrates an association between constipation and lower UTI in children. The findings emphasize the importance of systematic evaluation of bowel and bladder function in pediatric UTI cases. Further research is needed to elucidate the underlying mechanisms and develop targeted interventions for this common pediatric health issue.

Keywords: Urinary tract infection (UTI), Constipation, Intestinal microbiome, Pediatrics, Arar

Bahrain Med Bull 2025; 47 (3): 2326-2330

* Saudi Board of Pediatric
Associate Professor, Department of Pediatrics
Faculty of Medicine, Northern Border University, Saudi Arabia.
E-mail: alenazisheshabi@gmail.com