

Urinary tract infections in children: A changing paradigm

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Abstract

Purpose: To review the changing paradigms in the diagnosis, investigation and management of urinary tract infections (UTIs) in children beyond the neonatal period.

Methods: A literature search was done using PUBMED, EBSCO host database and GOOGLE SCHOLAR of all articles including reviews and guidelines on UTIs in children for the last ten years. A total of 2725 articles including review articles and guidelines published over the last 10 years were searched and reviewed.

Results: UTIs are the second most common cause of serious bacterial infections in early childhood. Despite increasing resistance to several first-line antibiotics, appropriate antibiotic treatment has almost eliminated mortality. Early guidelines advocated aggressive treatment and extensive imaging studies, particularly for the detection of serious ureteric reflex and kidney scarring. Treatment in the acute episode is aimed at eradication of bacteriuria and alleviation of symptoms. Long-term goals include prevention of recurrent attacks of UTIs, kidney scarring and correction of urological lesions that may predispose to recurrent infections. Although there is increasing evidence to show that long-term antimicrobial prophylaxis may be associated with a reduced risk of recurrent infection in selected groups of patients, but not renal scarring, more studies are needed to confirm this. Surgical intervention is now restricted to cases with severe vesicoureteric reflux and failed medical management with endoscopic surgery being increasingly used in most centres compared to open surgery.

Conclusion: A more tangible approach to UTIs is advocated providing for more judicious use of resources with reduced harm from procedures, without affecting outcome.

Biography

Rajendra Bhimma, MB, ChB, MD, DCH (SA), FCP (Paeds) (SA), MMed (Natal), is an Associate Professor of Pediatrics, Principal Specialist of Department of Pediatrics and Child Health, Nelson R Mandela School of Medicine, University of KwaZulu-Natal, South Africa. He has published over 50 articles in peer-reviewed journals. He is a member of: American Association for the Advancement of Science, International Pediatric Transplant Association, International Society of Nephrology, South African Medical Association, South African Paediatric Association, South African Transplant Society. His research interest is in glomerular diseases, especially HIV associated kidney diseases. He is a long-standing member of the Biomedical Research Ethics Committee of the University of KwaZulu-Natal and an Editorial Board Member of two international journals.