UTI in Children: A changing paradigm

Rajendra Bhimma
Natal University, South Africa

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 2 725 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, thus placing a huge financial burden on the health budget. 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: Following extensive research, a more tangible approach to UTIs is advocated providing for more judicious use of resources with reduced harm from procedures, without affecting the outcome. This review addresses the diagnosis, management and treatment of UTIs in children beyond the neonatal period.

Biography
Rajendra Bhimma has received his PhD in Medicine from the University of Natal University during the period of 1999 to 2002. Currently, he is working as Paediatrics and Child Health at this University. He has successfully completed his Administrative responsibilities as Associate Professor of Paediatrics and Principal Specialist. His research has included kidney diseases in children. Based on this research and fellowship training he has received several awards and honors. He is serving as an editorial member of several reputed journals like The World Journal of Nephrology and Asian Journal of Nephrology & expert Reviewers for journals like American Journal of Kidney Disease, Pediatric Nephrology, Journal of Therapeutics and Nephrology etc. He has authored over 50 peer reviewed research articles and has written 5 chapters for books.

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