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Urinary tract infection in neonates with serious bacterial infections admitted to the University Hospital of the West Indies.

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Source

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Abstract

OBJECTIVE:

The aim of this study was to describe the epidemiology of urinary tract infection in neonates, with serious bacterial infections, admitted to the University Hospital of the West Indies.

METHODS:

Admission records of all neonates admitted to the neonatal unit of the University Hospital of the West Indies between January 1995 and December 2000 for sepsis evaluation were reviewed. Infants who had positive bacterial cultures were identified using laboratory records. Those satisfying the criteria for urinary tract infection were selected for detailed analysis. Demographic, clinical and laboratory data were collected using a pre-coded questionnaire. Descriptive analyses were performed.

RESULTS:

Fifty-one (38%) of 135 babies with positive bacterial isolates had confirmed urinary tract infection. Male:female ratio was 6:1. Common presenting features included fever (32%), poor feeding (30%) and irritability (22%). The mean white cell count was 14 +/- 6.26. E coli and Klebsiella species were most frequently identified. Factors associated with a diagnosis of urinary tract infection included male gender ($p < 0.001$), age > 48 hours ($p < 0.05$) and a presenting complaint of poor feeding ($p < 0.003$). Imaging studies of the renal tract detected abnormalities in 5 (10.4%) neonates.

CONCLUSIONS:

Urinary tract infection is an important cause of serious bacterial infection in neonates affecting 1 in 3 babies with proven bacterial infection and may be the first indicator of underlying structural abnormalities. The absence of specific distinguishing clinical features makes it necessary to include urine cultures in the sepsis evaluation of neonates presenting with symptoms suggestive of sepsis.