ORIGINAL RESEARCH ARTICLE

URINARY TRACT INFECTIONS IN MALE CHILDREN: A PROSPECTIVE OBSERVATIONAL STUDY

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Abstract: A total of 96 male children with Urinary Tract Infections (UTI) were included in the study to identify the risk factors predisposing to UTI in male children .78.83% were in <1 yr age and 20.3% were in 1 to 5 yr of age. Dysuria, fever and frequency are the most common symptoms (33%). Culture positivity was only in 35 children (36.36%). E.coli was the most common organism isolated (80%). Urinary tract abnormalities were found in 34/96 (33%). Phimosis was the most common urinary anomaly noted (47.06%). PUJ obstruction with hydro-nephrosis was seen in 39.29% followed by VUR in 11.76% and renal calculi in 5.88%.

Key words: UTI; Male Children; Structural Abnormalities of Uro-Renal System

INTRODUCTION

Urinary tract infections are very common in children and is the most common focus of infection children with fever without focus between one to 36 months of age. Up to infancy urinary infections are equal in both sexes. After one year of age female children are more involved than males. But if an UTI is identified in male children an attempt should always be made to rule out predisposing anatomical anomalies of urinary tract. With this in mind present study is undertaken to study the risk factors for UTI in male children.

MATERIALS AND METHODS

96 male children attending pediatrics out patient at government general hospital, Kurnool medical college over a period of one year from January 2013 to January 2014 were included. Only male children with diagnosed UTI were taken in to the study group. The inclusion and exclusion criteria were used as per IAP guidelines. Required investigations including Urine for culture, Ultrasound examination of urology renal system, IVP and MUG as per the need. SSP Statistical software is used to analyze the data.

RESULTS AND DISCUSSION

Table 1: Cases in relation to age groups

Age Group	Number	%
<1yr	68	70.85
1-5 yrs	20	20.83
5-12 yrs	8	8.33
total	96	100

Majority of children are infants only (70.83%). 20.83% (20/96) are in one to five years age group and only eight children are in 5-12 years age group (8.33%) All the children are males only.

Table 2: culture positives vs negatives

Culture	<1yr	1-5yrs	5-12yrs	Total (%)
Positive	28	5	2	35 (36.46)
Negative	40	15	6	61 (63.54)
Total	68	20	8	96 (100)

Culture and sensitivity reports are positive in 35/96 cases (36.46%). rest are negative cultures

Table 3: microorganisms isolated in cultures

Microorganism	Number	%
E.coli	28	80
Klebsiella	4	11.41
Staphylococcus Coag. Neg	2	5.7
Pseudomonas	1	2.86
Total	35	100

Culture facilities are far inadequate. Within available facilities E. coli was found to be the most common organism 28/35 (80%) followed by klebsiella sps. 4/35 (11.41%)

Table 4: urinary tract anomalies identified

Urinary Tract Problem	Number	%
Phymosis	16	47.06
PUJ Obstruction	12	35.29
Vescico Ureteric Reflux	4	11.76
Renal Calculi	2	5.88
Total (N=96)	34	35.42

Around 35.42% (34/96) of children were found to be having associated urinary tract anomalies. phimosis was the most common urinary problem identified (47.06%). significant abnormalities like PUJ obstruction with hydronephrosis either unilateral or bilateral was seen in 35.29%. Vescico ureteral reflux was seen in four children (11.76%). renal calculi was the predisposing event in 2 children (5.88). B. Manohar et al., (3) in their study included both male and female children and isolated E. coli as the most common organism.

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CONCLUSIONS

Majority of children are infants only (70.83%). 20.83% (20/96) are in one to five years age group and only eight children are in 5-12 yrs age group (8.33%)

Culture and sensitivity reports are positive in 35/96 cases (36.46%) rest are negative cultures

Cultures facilities are far inadequate. Within available facilities *E. coli* was found to be the most common organism 28/35(80%) followed by *klebsiella* sps. 4/35(11.41%)

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