

Study of Recurrent Urinary Tract Infections in Females in Sinnar Teaching Hospital

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Abstract:

Introduction: Urinary tract infections (UTIs) are the commonest bacterial infection presented by women in primary care. RUTIs can reduce quality of life and increase healthcare costs associated with outpatient visits, diagnostic tests and prescriptions. Antibiotic prophylaxis can prevent RUTIs [5] but is commonly associated with unpleasant side effects such as oral and vaginal candidiasis and gastrointestinal disturbances, and occasionally more severe side effects. In order to address this gap our study tried to select the most common micro organism that causing -recurrent UTI in female in Sennar state.

Methods: This study was done in Sinnar teaching hospital in period from the first of January up to the end of October 2016, on 110 females presented with more than 3 episode of UTI.

Result: The study concluded that 26% of the patients were single while 74 % were married and showed that 36 % of patients were infected with Coliform , 31 % E.coli, 18 % with Cedecea davicae, 15 % Staphylococcus aureus and only 1 % Pseudomonas spp.

Conclusion: This study is in line with universal studies in dominant of gram negative organism so we need more research in antibiotics protocol in treatment of female with RUTI.

Key words: urinary tract infections, Sinnar Teaching Hospital

INTRODUCTION

In United Kingdom urinary tract infections (UTIs) are the commonest bacterial infection presented by women in primary care [1] with approximately 40–50% of women experiencing one lifetime episode [2]. (RUTIs) are defined as three episodes of UTIs in the previous 12 months [3]. Between 20–30% of women who have one episode will have a further episode and around 25% of these will develop RUTI [4]. RUTIs can reduce quality of life and increase healthcare costs associated with outpatient visits, diagnostic tests and prescriptions. Antibiotic prophylaxis can prevent RUTIs [5] but is commonly associated with unpleasant side effects such as oral and vaginal candidacies and gastrointestinal disturbances, and occasionally more severe side effects. Once prophylaxis is discontinued, even after extended periods 50–60% of women will become re-infected within 3 months [6,7]. In addition antibiotic overuse and the subsequent development of bacterial resistance is a growing problem [8] that increasingly affects management. Although uncomplicated UTIs are considered a mild, self-limiting condition, qualitative research suggests that UTIs can seriously impact women's quality of life [9-11].

Malterud and Baerheim [10] explored the symptomatic experiences of 94 Norwegian women with UTIs and reported an 'unexpected finding' of accompanying systemic symptoms including tiredness, inability to concentrate, and irritability. These systemic symptoms and the disruption they caused were also noted in qualitative interviews with 21 women in the UK experiencing acute UTIs [9]. The Norwegian study (10) also found that women use divide language to describe their symptoms (such as "like peeing barbed wire") To our knowledge ,there has been qualitative study focusing specifically on the

experiences of women with RUTIs and the impact that recurrent infection has on their lives.

PROBLEM

Female have a short urethra, which makes them reliable to urinary tract infection, in addition to this in Sudan tight circumcision increased the risk of UTI .

UTI occurrence can have a systemic impact on health and wellbeing and cause serious disruption to daily activities, term disability and illustrates how the recurrent nature of these episodes amplifies and compounds this disruption into a serious long term complications, this study aimed to isolate the most common micro organism affect Sinnar females.

MATERIAL AND METHOD

The methodological approach adopted for this analysis was Qualitative Description. This is an inductive method that uses analysis of result of urine culture which was done for 110 female with history of more than 3 episodes of urinary tract infection .the data were collected at Sinnar teaching hospital in the period from first of January up to end of October 2006

OBJECTIVE

The general objective of this study is look for the most common micro organism that causing recurrent UTI in females in Sinnar teaching hospital.

RESULTS

Table (1) Age Frequency and Percentage:

Cumulative percent	Valid percent	Percent	Frequency	
14.5	14.5	14.5	16	0 – 20 valid
50.9	36.4	36.4	40	20 – 40
100.0	49.1	49.1	54	More than 40
	100.0	100.0	110	Total

Table (2) Marital Status Frequency and Percentage

Cumulative percent	Valid percent	Percent	Frequency	
25.5	25.5	25.5	28	Single
100.0	74.5	74.5	82	Married
	100.0	100.0	110	Total

Table (3) Organism Frequency and Percentage

Cumulative percent	Valid percent	Percent	Frequency	
30.9	30.9	30.9	34	E.coli
67.3	36.4	36.4	40	Coliform
80.9	13.6	13.6	10	Staph aureus
99.1	18.2	18.2	20	Cedecea davicae
100.0	0.9	0.9	1	Pseudomonas
	100.0	100.0	110	Total

Figure (1) Organism *Marital status Cross Tabulation

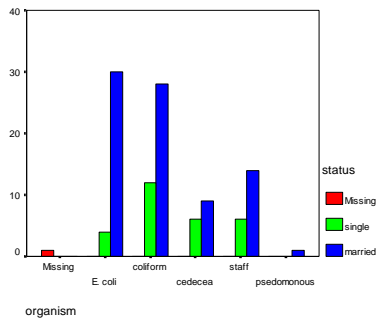
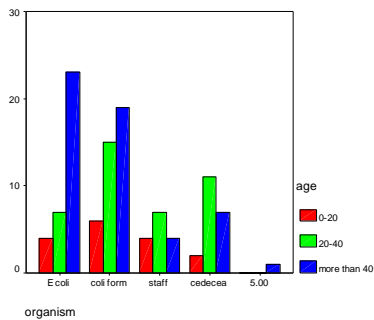


Figure (2) organism *age cross tabulation:



DISCUSSION

The study has been conducted in sinnar teaching hospital in Sinnar state, on 110 patient all of them are females with recurrent UTI, 45 % of them were more than 50 years old , 36 % of them between 20 – 40 years old and 15 % less than 20 Years old (table 1).

Table 2 showed that 26% of the patients were single while 74 % were married, one the other hand 36 % of patient were infected with Coliform (70 % of them were married and 30 % were single) , 31 % E.coli (88 % of them were married while only 12 % were single) ,18 % Cedecea (70 % were married and 30 % were single) , 15 % Staphylococcus aureus (60 % of them were married and 40 % were single) and only 1 % Pseudomonas spp (figure 1,2)

This study in line with Leydon et al 2010 (9) whom found that gram negative is dominant with 50 % E.coli and 30 % Coliform while gram positive organisms were less (15 %)

This study showed that 28 % of patient infected with Coliform were married While 12 % were single.

RECOMMENDATIONS:

After the enumeration of the results that are related to the following study, there are some ideas which could help further in the field of the research and are better to be recommended as follow:

- Social workup is recommended including personal hygiene and sexual behavior.
- We need further research on husbands of females with RUTI.
- We need more studies in the field including antibiotic susceptibility.

CONCLUSIONS:

This study has been done in Sinnar Teaching Hospital 110 female patients with RUTI on all ages groups .

The goal of the study is to look for the most common micro organism that causing recurrent UTI in females in Sinnar teaching hospital .

The results concluded that 26% of the patients were single while 74 % were married, also it showed 36 % of patient were infected with Coliform , 31 % E.coli,18 % Cedecea , 15 % Staphylococcus aureus and 1 % Pseudomonas spp.

Further research is needed in males, social, antibiotics susceptibility.

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