

ACUTE PYELONEPHRITIS IN YOUNG AND SEXUAL ACTIVE WOMEN: AN OBSERVATIONAL STUDY



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INTRODUCTION

The main risk factors for pyelonephritis are: obstructive uropathy, diabetes mellitus, and being older. Moreover, there is a no standard definition of pyelonephritis in literature.¹

OBJECTIVE

We did an observational prospective evaluation of all the women admitted to our Department in the last year with a certain diagnosis of pyelonephritis. The aim of the study was to assess the correlations between the renal infection and post coital urinary infection in young women with no associated risk factors for pyelonephritis.

METHODS

This is a prospective observational study of all the sexually active women admitted to our Department for pyelonephritis from January 2016 to January 2017.

All patients had flank pain, fever, positive urinalysis, high blood infection biomarkers, and a CT scan documenting the renal infection.

Exclusion criteria were: age > 45 y.o., diabetes, the presence of urinary stones, previous surgery of urinary tract, urinary tract pathology causing obstruction, neurogenic disorders.

Results

Of 54 patients admitted for pyelonephritis only 23 women (42.6%) were eligible for the study. The mean age was 31.2 years. None patient reported a history of Lower Urinary Tract Symptoms (LUTS). Post-coital urinary infections were reported in 43.4% of the patients (10/23). In the post-coital urinary infection group 80% (8/10) reported recurrent Urinary Tract Infections (UTI), while in the non post-coital group infection only 23% of the women (3/13) had recurrent UTI. Table 1 reports clinical data.

In these patients post-coital urinary infection could be a misunderstood risk factor. Indeed, our data showed a high rate of post-coital urinary infection in young women admitted to hospital for pyelonephritis, four times higher respect to women without post-coital infections. In the group of patients with post-coital urinary infection we found constipation, recurrent UTI, and irregular menstrual cycle rate more common.

	Population of women with pyelonephritis	
	Post-coital urinary infection 43.4% (10/23)	Non post-coital urinary infection 56.6% (13/23)
Mean age (range)	34.1 % (18-45)	28.3 % (17-45)
Constipation	60 % (6)	15.4 (2)
Irregular menstrual cycle	60 % (6)	23.1 % (3)
Recurrent UTI	80 % (8)	23.1 % (3)
Proper vaginal hygiene after intercourse	80 % (8)	84.5 % (11)
Vaginal dryness	40 % (4)	38.5 % (5)

Table1: clinical data, in the picture "Head of Leda" Leonardo da Vinci, 1505

CONCLUSIONS

Our study shows that comparing sexually active women in a childbearing age, without specific risk factors for pyelonephritis, more common associated risk factors was the post-coital urinary infections. In these patients we found a higher rate of constipation, recurrent UTI, and irregular menstrual cycle.

REFERENCES

1. Febrile urinary tract infections: pyelonephritis and urosepsis. Schneeberger C1, Holleman F Geerlings SE. Curr Opin Infect Dis. 2016 Feb;29(1):80-5.