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## Pollakiuria and its relationship with obsessive compulsive disorder

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### ABSTRACT

**Introduction:** Some children have a severe urinary frequency with an abrupt onset. They void every 15 minutes during the day, without daytime incontinence, dysuria, nocturia, or urinary tract infection (UTI). Pollakiuria or daytime frequency syndrome of children is the term used to describe this condition.

**Objectives:** This study was designed to evaluation and correlation between obsessive-compulsive disorder (OCD) and day time frequency syndrome.

**Patients and Methods:** In this study, we selected 76 children with pollakiuria as the case group and 76 healthy children for the control group in Arak, Iran. The diagnosis of obsessive-compulsive disorder was conducted through interviews, OCI-CV tests, and the psychiatrist's approval. The comparison was based on DSM-IV-TR diagnostic criteria. The analysis was conducted by SPSS version 16 and a *P* value less than 0.05 was considered significant.

**Results:** The obsessive disorder was noted in five individuals (6.6%) of case group (pollakiuria) and eight individuals (10.5%) of the control group (*P*=0.282).

**Conclusion:** The results of this study showed that OCD is not more common in children with pollakiuria

#### Implication for health policy/practice/research/medical education:

In a study on 76 children with pollakiuria as the case group and 76 healthy children, OCD is not more common in children with pollakiuria.

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### Introduction

Some children have a severe urinary frequency with an abrupt onset. They void every 15 minutes during the day, without daytime incontinence, dysuria, nocturia, or urinary tract infection (UTI). These symptoms are most common in children between 4 and 6 years old. Additionally this disorder is more common in boys. Pollakiuria or daytime frequency syndrome of children is the term used to describe this condition. No anatomic problem is detected in the child, as it is a functional disorder. The symptoms often occur before the child starts preschool, or if the child undergoes family stress (1-3). The symptoms mostly start before school age. These children should be evaluated regarding presence of UTI.

The physicians should ensure the child empties his/her bladder reasonably. Sometimes, pinworms can also cause these symptoms. This is a self-limiting condition that gets resolved in 2 to 3 months. The administration of an anticholinergic agent has rarely been effective (4-6). Obsessive compulsive disorder is a chronic disabling sickness characterized (7,8). Cleaning compulsions and washing are common in children (9,10). Very few studies have assessed the association between pollakiuria and obsessive-compulsive disorder (OCD) (11-14).

### Objectives

This study was designed to evaluation and correlation between OCD and day time frequency syndrome.



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## Patients and Methods

In this study, we selected 76 children with pollakiuria in the case group and 76 healthy children in the control group. The study was conducted in Amir-Kabir hospital, Arak, Iran. The exclusion criteria were; 1) children with psychological disorders and/or mental retardation or nervous system disorders. 2) Children whose parents did not cooperate fully—for example, did not fill the forms completely. The children of the control group were selected from pediatrics with UTI and normal DMSA renal scan, kidney sonography, and voiding cystourethrogram (VCUG). The diagnosis of OCD was conducted through interviews, OCI-CV tests, and the psychiatrist's approval. The comparison was based on DSM-IV-TR diagnostic criteria (15,16).

## Ethical issues

The research followed the tenets of the Declaration of Helsinki; informed consent was obtained; and the research was approved by the ethical committee of Arak University of Medical Sciences (#92-146-8).

## Statistical analysis

Results were analyzed using descriptive statistics and chi-square test. The analysis was conducted by SPSS version 16 and a *P* value less than 0.05 was considered significant.

## Results

Overall, 152 children (76 as a case group and 76 as a control group) were selected for our study. The demographic factors were studied and matched in 2 groups. The average of age in children in the case and control teams was calculated at  $8.13 \pm 1.39$  years and  $8.19 \pm 2.026$  years (Table 1). The obsessive disorder was noted in 5 (6.6%) of case group (pollakiuria) and 8 (10.5%) of control group ( $P = 0.282$ ) (Table 2).

## Discussion

In this study, we compared OCD in children with and without pollakiuria. To the best of our knowledge, this is the first study that has studied OCD in children with

pollakiuria.

The distribution of obsession in children showed no meaningful relationship between OCD disorder and urination frequency disorders.

Koff et al reported that dysfunctional elimination syndromes are associated with late reflux disappearing and an increase in urinary infection (14).

Mota et al highlighted that wrong training may be a causative factor for bladder and intestinal disorders (17).

Fonseca et al pointed out a high prevalence of lower urinary tract symptoms in children with nocturia. They found the association of nocturia with other urinary symptoms was usual (18).

## Conclusion

In our study we found no definite relationship between obsession and urinary disorders. However, this study requires more investigation. Similar studies with a higher proportion of samples at different centers are recommended in order to help these patients.

## Limitations of study

Low proportion of patients is a limitation of our study.

## Authors' contribution

Study concept and design; PY. Acquisition of data and sampling; PY, BS, HT, AA and FS. Analysis and interpretation of data; PY and AK. Drafting of the manuscript; AK and MH. Critical revision of the manuscript for important intellectual content; PY, AK and MH. Statistical analysis; MR. Study supervision; PY and AK.

## Conflicts of interest

The authors declare no conflict of interest.

## Ethical considerations

Ethical issues (including plagiarism, data fabrication, double publication) have been completely observed by the authors.

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**Table 1.** Mean of children age

Age	Frequency	Mean	<i>P</i> value
Case	76	8.13±1.39	0.816
Control	76	8.19±2.02	

**Table 2.** Frequency of OCD in children

Group	OCD		Total
	Yes	No	
Case, No. (%)	5 6.6	71 93.4	76 100
Control, No. (%)	8 10.5	68 89.5	76 100
Total, No. (%)	13 8.6	139 91.4	152 100

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