

Enuresis in Childhood a Hospital Study

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Summary:

Background: Enuresis remains a society-unresolved problem despite avoluminous literature. The cause is not clearly understood and treatment remains controversial

Objectives: To study the prevalence of Nocturnal enuresis in children among different age groups attending Central Teaching Hospital.

Patients & methods: This study was carried out at Central teaching hospital for children – Baghdad. A total number of 500 children were included in this study, 220 female and 280 male aged 5-13 years who attending the out patient clinic between the first of June and the thirty of September 2003, the parents of these children were asked about the presence and frequency of enuresis.

Results: Fifty(22.3%) of female children included in the study were enuretic and 60 (21.4%) of male included in the study) were enuretic, so the total enuretic children was 110(22%) and non – enuretic number was 390 (78%) taking a minimum frequency of one wet per month. Positive family history was found in (60) 54% of enuretic children, urinary tract infection was found in (10) 9% of enuretic children mostly females. Spina bifida occulta was detected in 22(20%) of enuretic children, worm infestation was present in 61 (55%) of enuretic children. Twenty-two(20%) of the families have asked about medical treatment for their children and 11(50%) of them received short term medical treatment without great benefit.

Conclusion: The prevalence of enuresis in the studied children was higher than that reported previously in Iraq.

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Introduction

Enuresis remains a society-unresolved problem despite a voluminous literature. The cause is not clearly understood and treatment remains controversial⁽¹⁾. It is a common pediatric problem and its potential cause of embarrassment to the child and the parents⁽²⁾. Enuresis is a Greek word for incontinence⁽³⁾. It is defined as involuntary urination occurring in a child at any age when the bladder control should have been obtained which is not a fixed aged⁽⁴⁾. Typically most children have reached continence at age of 5 years in girls and 6 years in boys⁽⁵⁾. It is classified into primary in which the child has never been dry or secondary in which the child has been continent for at least one year begins to wet bed again⁽⁶⁾. Enuresis may occur at night only (Nocturnal type)

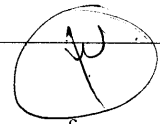
or occurring during the day - diurnal; enuresis or it may be mixed type⁽⁵⁾. Enuresis present in 15-20% of 5 years old children and boys are about twice as likely to wet as girls⁽⁷⁾.

Methods and subjects:

This study was carried in central teaching hospital for children in Baghdad, children aged 5-13 years were attending the out patient clinic between the 1st of June 2003 and the 30th of Sept. 2003 were included in this study. The total number included in this study were 500 children of which 280 (56%) were male and 220(44%) were female, 110 (22%) children were enuretic and 390 (78%) were non-enuretic.

The questionnaire includes: Age which was classified into 3 groups (5-7), (8-10) and (11-13) years and according to sex. Nocturnal versus diurnal enuresis, primary versus secondary enuresis, frequency of enuresis, sequence of the child in the family and association with a possible risk Spina bifida occulta, urinary tract infection, and thread worm manifestation and lastly whether the family asked for medical treatment or advice.

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Results:

1. Nocturnal versus diurnal enuresis

One hundred (90.9%) of enuretic children had only nocturnal enuresis, 4(3.6%) cases had both diurnal and nocturnal enuresis, 3(2.7%) of them have Spina bifida occulta and 10(9%) had urinary tract infection(UTI), UTI were more common in patient who have Spina bifida occulta , 2(66%) patient out of 3 have UTI both of them are female .

2. Primary versus secondary enuresis

One hundred and five (92%) of enuretic children had primary enuresis 5 (8%) had secondary enuresis, 2(1.8%) have Spina bifida and UTI and 2(1.8%) were discovered to have Diabetes Mellitus, 1(0.9%) child has UTI alone. The frequency of bed wetter was as:

- Every night(46)42%
- Twice a week (39) 36%
- Once aweek (18)17%
- Once a month (5) 5%

. Family history

Sixty Childs (54.5%) out of 110 enuretic children had a positive family history of similar condition in one or more of the 1st degree relative. First child affected more of which 35 (31%)of the enuretic children was the 1st born child in the family , and 11(10%) of enuretic children have either father or mother with delayed bladder control.

4. Association with increase risks

1. Urinary tract infection were found in 10 (9%) of enuretic children. 8(80%) were female and 2(20%) were male.
2. Spina bifida occulta was detected in 22 (20%) of the enuretic children.
3. Thread worm infestation was found in 61(55%) of enuretic children and 132(43%) of non- enuretic children.

5. Medical advice

Twenty percent (22 families) were asked about medical advice for their children and received impramine tablets for various period without definite response, while 5% (6)of enuretic children had used desmopression for short period without great benefit.

Discussion:

Enuresis is a fairly common problem. The prevalence was somewhat variable among population ⁽²⁾. The prevalence of enuresis is approximately 20% at age of five years, 10% at age of six years, 7% at age twelve years and 1% at age of eighteen years⁽⁸⁾.

In this study the prevalence was:

5-7 years	24.4%
8-10 years	25%
11-12 years	13%

In Newcastle as a part of 1000 family survey the

prevalence of enuresis was 17.7% at 5 years, 11% at 10 years and 2% at 15 years⁽⁸⁾ so in comparison with our study the prevalence in Iraqi children at every age was higher, the same finding reported by Jabri at al (1989)⁽⁹⁾ high prevalence can be explained on account that children in this study come from families of big size and low socio economic class. Bed wetter was more common in lower socio economic classes⁽⁶⁾.

Sex distribution:

In this study Boys out number girls by ratio of 1.5/1(8) in those study but girls were slightly more likely to be enuretic than boys though the difference was statistically insignificant the male to female ratio was 1/1.06(9) similar study was reported by Jabri at el (1989)(10).

Nocturnal versus diurnal enuresis Nocturnal enuresis is most common type(10). Most children were continent during the awaking hours by age of 3-4 years(10). Approximately 8% of children with nocturnal enuresis have daytime bed enuresis. Daytime bed-wetting occurs in 1% of children in (7-12) years of age(9) . In this study the majority 96.6% of enuretic children had only nocturnal enuresis. And just 3-4 % had both diurnal and nocturnal enuresis, most survey suggest that day time wetting is more common in girls(6) in this study, 4 cases reported had both nocturnal and diurnal enuresis.

Primary versus secondary enuresis Our study showed that the majority of enuretic children were of primary type 92.8% and just 7.2% had secondary enuresis, as related to the family history 54% had positive family history of similar condition, 1st child affected more(6) and 18% of enuretic children has either father or mother with delayed bladder control.

Association with possible increase risk The most common association was with urinary tract infection (10) which was found in 9% of children, mostly female, Spina bifida occulta was detected in 20% of enuretic children, thread worm infestation was present in 55% of enuretic children and 34% non- enuretic children. Conclusion and recommendations From this study the prevalence of enuresis in our study is higher than those reported in literature with slightly higher figures in girls and it is especially frequently in families of large size. Enuresis is common in childhood. So treatment should not overemphasized and even if it is no effective The symptoms will cease when the child grows up and lastly the enuresis is a symptom rather than a disease. It is a delay in maturation process though sometimes might focus attention towards organic disease of problem.



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Table (2) Shows The Prevalence Of Enuresis In Each Age Group In Relation To Sex (Male, Female) Ratio

Age group	male					female				
	Total	Non-enuresis		enuresis		Total	Non-enuretic		enuresis	
		No.	%	No	%		No.	%	No.	%
5-7	165	120	76	40	24	118	92	76	26	21
8-11	65	49	76	16	24	64	48	66	16	25
11-13	50	46	92	4	8	38	30	86	8	21
5-13 all	280	220	76	60	21	220	170	84	50	21

Table (1) Shows The Prevalence Of Enuresis In Each Age Group.

Age	Enuretic		Non - enuretic		Total
	No.	%	No.	%.	
5-7	65	24.4	205	75.6	270
8-10	30	25	115	75	145
11-13	15	18	70	72	85
5-13 all	110	22	390	78	500