

DIAGNOSTIC ALGORITHM IN CHILDREN WITH ENURESIS NOCTURNA

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ABSTRACT

Enuresis nocturna is a common disorder in childhood representing a serious medico-social problem. A series of organic, functional, familial, life-style, and psycho-social reasons are involved in wetting one's bed in children. The diagnostic algorithm in children with enuresis nocturna includes a detailed anamnesis and clinical examination, laboratory tests of urine, urea, creatinine, uric acid, ionogram, and echography of the urinary tract. The exclusion of an organic etiology requires purposeful search for psycho-social, familial, and life-style factors as well as consult examination by a psychiatrist or neurologist.

Key words: enuresis nocturna, diagnostic algorithm, echography, laboratory tests, children

INTRODUCTION

According to different authors, enuresis nocturna (night wetting one's bed) occurs in 5-25 per cent of the children. It is a serious medico-social disease with a complex etiology, pathogenesis, various clinical manifestations. Most often, it answers hard to medical treatment. The age of five but, according to some authors, the age of six years is considered the upper limit of the physiological and the onset of the pathological enuresis (1,7).

The reasons for enuresis in childhood are the following:

- a) organic reasons - congenital and acquired urinary tract diseases, diseases of the central nervous system and of other organs and systems such as diabetes mellitus, diabetes insipidus, etc. (1,2,8);
- b) functional reasons - congenital functional weakness of the urethral sphincter, functional inferiority of the regulation of the neuro-muscular urinary tract structures (3-6);
- c) familial, and psycho-social reasons.

DIAGNOSTIC ALGORITHM

The analysis of this serious problem in childhood requires the elaboration of behaviour in these children consisting of:

- a) detailed anamnestic data (date of initial enuresis, form of enuresis such as primary and existing after birth and continuing without interruption even after the period of the so-called physiological enuresis, nocturnal enuresis, mixed enuresis, rhythm of wettings one's bed, presence of dry periods, nutritional regimen, familial anamnesis,

sleep of the child, presence of psychotrauma, presence of other manifestations such as encopresis, neurotic disturbances, peculiarities of the character, behaviour, school scores);

- b) anamnesis about common upper respiratory tract infections;
- c) relapsing urinary tract infections;
- d) anamnestic evidence about vulvovaginitis;
- e) careful clinical examination: detection of developmental abnormalities such as congenital anomalies, diseases of the central nervous system such as hydrocephaly, pareses, examination of the local status of the urinary system;
- f) laboratory examinations: urine tests for the presence of albumin, sugar, acetone, erythrocytes, leukocytes; when an inflammatory process is suspected - urinary cultures, urea, creatinine, uric acid, ionogram, tests for thread worms and helminths, in case of polydipsopolyuric syndrome - blood sugar, urine relative weight, and diuresis;
- g) consult examination by an obstetrician and gynaecologist to exclude pathology of the external genital organs;
- h) consult examination by an otorhinolaryngologist in common upper respiratory tract infections.

The primary task of the paediatrician is to exclude any organic reasons for the enuresis such as any diseases of the urinary system, of the central nervous system, and diabetes. Besides the aforementioned laboratory examinations to prove an organic reason for enuresis the performance of echography is obligatorily necessary.

Enuresis is a common symptom in some congenital urinary tract anomalies such as vesico-ureteral reflux and double drainage system. Functional echography is required when alterations at the level of pyelon are established. In cases of changes persisting or even aggravating after the functional

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echography such as drainage disturbances and hydronephrosis the performance of miction cystography is necessitated in order to exclude any pathology of the lower urinary segment.

The elimination of any organic reasons for the enuresis allows the specifying child's regime and, eventually, its psychic loadings and to discuss the familial predisposition as well. Consulting examinations by neurologist or psychiatrist are recommended when certain psycho-social and familial, life-style reasons for the enuresis are suspected.

CONSLUSIONS

The following main conclusions about the behaviour in children with enuresis nocturna are imposed:

- 1) after a detailed anamnesis and careful clinical examination the organic reason for the enuresis should be excluded;
- 2) the following examinations are obligatory in children with enuresis: urine tests, blood urea, creatinine, uric acid, ionogram, helminths and thread worms;
- 3) echography of the urinary tract represents an obligatory imaging examination with a view of looking for pathological alterations;
- 4) after the elimination of the organic reasons for the enuresis nocturna one should undertake a purposeful search for psycho-social, familial, and life-style reasons and therefore, consult examinations by neurologist or psychiatrist are required;
- 5) the proof of the reasons for the enuresis nocturna in childhood determines the correct therapeutic approach and the results from the treatment carried out.

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