Enuresis and encopresis

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Enuresis and encopresis: elimination disorders

- Essentially they are “developmental” disorders
- I.e. they are related to maturation
- Appear in childhood and often have spontaneous remission
- Interaction of genetic and environmental factors
Enuresis
Diagnostic criteria DSM IV and ICD 10

**DSM IV**
- Repeated involuntary and voluntary micturition
- Intellectual and chronological age at least 5 years
- At least twice per week or marked pressure or diminished social and academic functioning
- At least 3 consecutive months
- Exclusion criteria: diabetes mellitus, insipidus, spina bifida, cerebrovascular, neurgenic bladder,

**ICD 10**
- Repeated involuntary urination
- Chronological age 5 years, intellectual age at least 4 years
- Not given
- Not given
- Exclusion: epilepsy, neurological incontinence, structural abnormality in neuralpathways, other diseases. Criteria for other mental disorders
Definition & diagnosis

- Repeatedly urinating on clothes or bed, voluntary or involuntary
- At least 2 per week for 3 months, or significant impact in psychosocial interpersonal functioning
- At least 5 years of age (also in development)
- Not only due to a physical disease (spina bifida, epilepsy, diabetes) or medications (diuretics, SSRI, clonidine, risperidone, valproic)
Qualifiers

- Primary enuresis: no “dry” periods developmentally (no duration given)

Secondary enuresis. Period of no bed or clothes wetting (duration not specified)(1, 3, 6 or 12 months, different authors)
Differential diagnosis enuresis

Urinary incontinence. Usually diurnal, micturition due to dysfunction of the bladder (structural, neurogenic or functional) ( Majority of children with urination during the daytime (Olbing, 1993)
Other entities

-Idiopathic urge incontinence. Intense impulse to urinate, micturition, polakiuria, diminished bladder capacity. Instability of detrusor muscle, spontaneous contraction of the concave-bladder muscle during the filling phase of bladder. (overactive bladder)
Other entities.

- Urinary incontinence. Retention of urine due to interruption of urination during micturition.
- Strong maneuvers to avoid urinating during the day
Other entities

- Discoordination of detrusor and sphincter in bladder.

- Relaxation and paradoxical contraction of the bladder sphincter, during micturition, contraction of the pelvic floor, staccatto urination or fractioned micturition, with incomplete emptying of bladder
Rare forms

- Incontinence due to pressure. Increased intraabdominal pressure (cough or sneezing)

- Incontinence with laughter. Complete emptying of bladder during laughter

- Lazy bladder syndrome. Decompensation of detrusor muscle, large bladder, hypotonic, irregular and rare micturition and overflow incontinence
Epidemiology

- 17.5% nocturnal, 1.9% diurnal
- Correlation with very deep sleep
- Low socioeconomical status
- Higher number of children at home
- Enuresis in siblings
Prevalence: Enuresis

- Age 2: 92.5%
- Age 4: 29.2%
- Age 5: 15.7%
- Age 7: 10.3%
- Age 10: 2.5%
- Adolescence: 1.2%
- Adults: 0.3-1.7%

Von Gontard, 2003
Epidemiology

- More frequent in boys 1.5 or 2 to 1
- Spontaneous remission about 13.5% per year
- Primary enuresis nocturna is more frequent than secondary
- Diurnal enuresis more frequent in girls
Physiopathology

- Genetic factors
- Diminished functional capacity of bladder?
- Very “deep” sleep in child
- Difficulty to wake up
- Instability of the vesical sphincter and detrusor muscle
- Greater production of urine during the night
- Actually “wets” the bed, not just humid
Comorbidity

- Frequent association with psychopathology
- Behavioral and emotional
- No specific association
- Enuresis itself can lower self-esteem and lead to shame and guilt
- Increased stress for the child and family
- Rule out urinary tract infection
Associations

- Child often delays going to urinate
- Avoid emptying the bladder totally
- Frequent micturitions with small amounts of urine
Natural course

- Almost all children will eventually stop wetting bed
- Remission about 15% per year?
- Many parents prefer to use only hygienic measures and leave things to their natural course
- There may be a need for "dry bed" some special nights
Interventions

- Preventive and hygienic general strategies
- Diminish ingestion of liquids after 6 PM
- No caffeinated drinks at night
- Empty bladder before going to sleep
- Wake up child at midnight, to empty bladder before enuresis
Interventions

- **EXERCISES TO EXPAND BLADDER CAPACITY**
- Wait to urinate and purposefully retain urine
- After a “load” of liquids
- Positive reinforcement for retaining urine
- Exercises to stop flow of urine during micturition
Nocturnal alarm

- The most efficacious method
- Lesser rate of relapse once one stops using it (65% continue dry)
- Alarm and vibration device
- Must be used for several weeks
- Requires awaking during the night
- Child must wake up to change clothes and alarm should be reset

Requires motivation from child
Nocturnal alarm

- Disadvantages
- May awaken siblings
- May frighten the younger child
- Might be activated by sweat, not only urine
- May require from 4 to 12 weeks for success
Over-learning technique

- Alarm use plus retention of urine
- Once dry bed for two weeks
- Reduces the frequency of relapses
- 500 cc of liquid before going to bed
- Then set the alarm
- Less frequent recurrence of the problem
Multicomponent treatment

- Nocturnal alarm + Urine retention + bladder training
- The child changes bed sheets, clothes, sets the new clean sheets, resets the alarm before sleeping again
- Lower relapse rate
The “dry bed” regime

- Intensive procedure at beginning
- Overload of liquids during the night
- Wake up child to urine every hour
- Praise for not wetting the bed
Other strategies

- Magnetic stimulation of the pelvic floor
- Strengthening of the sphincterian muscles.
Pharmacological treatments

- Desmopresine or antidiuretic hormone (DDAVP)
- Administered at night, reduces production of urine
- Preferable for short term a few months
- High efficacy 70% remission whilst the medicine is being used
- High rate of relapse after its discontinuation
Risks of desmopresine

- Initial dose in children: 2 sprays each of 10 micrograms cada or 20 micrograms, for those over 6 years old. If not effective, 40 micrograms.
- If less than 6 years old, dose of 10 micrograms.
- Risk of water intoxication with desmopresine.
- Risk of hyponatremia and seizures.
- No studies of long term effects.
Medications

- Tricyclic antidepressants
- Imipramine, desipramine
- Increase the tone of the bladder sphincter
- High efficacy rate while the medication is being used
- Caution with cardiac effects (block of the atrioventricular node)
  Previous electrocardiogram is useful
Encopresis
Deposit of feces in inappropriate places (underware, floor, closet, others)

Age at least 4 años (or equivalent developmentally)

Voluntary or involuntary defection

Not due to effects of substances (laxatives) or physical condition (except constipation)
definition

- **Encopresis**

- with constipation and overflow incontinence

- Without constipation and overflow incontinence
Diagnostic criteria ICD 10 and DSM IV

ICD
Voluntary or involuntary deposition of feces in place not intended for that purpose

DSM IV
Repeated involuntary (rarely voluntary) deposition of stool in place not intended
Diagnostic criteria ICD 10 and DSM IV

ICD 10
- Chronological or develop. Age 4
- 1 time per month
- Duration 6 months

DSM IV
- Chronological age 4
- 1 time per month
- Duration 3 months
Diagnostic criteria ICD 10 and DSM IV

- ICD 10
  - EXCLUSION: Spina bifida, megacolon congenitum, other diseases.
  - Encopresis is dominant problem
  - Dx encopresis, if coexists with enuresis

- DSM IV
  - EXCLUSION
  - Not produced by substances (e.g. laxatives) or a general medical condition
Definition

- More frequent in boys than girls
- In preschool age, frequent reason for consultation, of “primary type”, the child has never learned to deposit feces in the right place
- In the school age and adolescent, often secondary type
Manifestations

- Younger child
- Does not want to defecate in “potty chair” or toilet
- Does not want to be a “big boy”
- Is afraid of going to the restroom
- Is hurt by the passage of feces through rectum
Manifestations

- The child says he does not feel passage of feces
- Does not notice the smell (when others do)
- Does not feel clothes have feces
- Tries to hide problem, hiding soiled clothes or feces themselves
Manifestations

- Child says he does not need to go to toilet
- Says there are no feces on clothes, although obviously there are
- Denies it is a frequent problem
- Angry when confronted or denies it is a problem
Epidemiology

- Over 90% of 2 year old children defecate on clothes
- 2.8 of 4 year olds
- 1.3 of 10 year olds
Intervention

- First step, evaluation of problem (duration, frequency severity, degree of interference with everyday life)
- Evaluation of the total functioning of the child. Are there other problems?
ATTENTION DEFICIT HYPERACTIVITY

SELF-STIMULATORY ACTIVITY, RETENTION OF FECES AS “MASTURBACIÓN”

DEVIATION OR DELAY IN DEVELOPMENT

ENCOPRESIS

ANXIETY
Fear of growing
Fear of toilet etc

FAMILY DYNAMICS,
CENTER OF ATTENTION
RESENTMENT
NEED OF CONTROL

CHRONIC CONSTIPATION

POST-TRAUMATIC STRESS

UNUSUAL SENSITIVITIES
To cold, to noise
Water, etc.

Fear of growing
Fear of toilet etc
Encopresis and attention deficit

- Little awareness of body
- Does not attend to somatic signals
- Distracted during play and does not go to defecate on time
- Defecation in the “last minute”
- Not clean self correctly, or in a hurry to finish defecation
Encopresis and constipation

- Constipation from other causes
- Diet little fiber, little exercise, dry foods, scarce vegetables, etc.
- Child makes efforts to retain feces
- Tighten buttocks to impede passage of feces
- Push feces back into rectum
- Pain with defecation
Chronic constipation

- Difficulty to defecate normally, several days without avoidance to do it due to pain
- "overflow" due to impaction of old feces in rectum
- Small and semi-fluid evacuations, often unnoticed
With other delays or deviations in development

- Lack of awareness of body sensations
- Sensations may not lead to logical consequences i.e. defecation
- Fear of changes, used to routine, learn new things
Encopresis and unusual sensitivities

- Fear of cold temperature of toilet
- Fear of noise of “pulling the chain”
- Avoids sensations of defecation, particularly if constipated
- Difficulty to remain seated, and lack of patience to wait for evacuation
Encopresis and self-stimulation

- Interest in “playing” with defecation
- Need to control the feces “almost out” but return
- Pleasure to contract the gluteal muscles
- Return the feces upward with fingers or hand
- Accostumed to the feeling of “fullness” with feces
Encopresis with anxiety

- Fear of the toilet
- Fear of “letting go” of feces
- Fear of falling into toilet
- Fear of going “down the tubes”
- Worry that an animal may get out from the toilet
- Memory of previous traumatic event
Encopresis and family dynamics

- The child has this "specialty" in the family
- Special role. Everybody worries if he/she might defecate on clothes
- To get attention is preferable to not
- Difficulty to abandon this special role
Encopresis and family dynamics

- Sensation of control, when one cannot control other things
- Resentment toward caregivers
- Feces on drawers, furniture, vents of air conditioner, etc.
- Encopresis becomes “the identity” of the child
Interventions

- Rule out a primarily medical problem
- Lack of sensibility in anal area
- Difficulty to control sphincters due to poor perception or coordination
- Another cause of constipation
- Malformación in the bowel, rectum, anus, etc.
Obtain the history of the problem

- Duration, if there was a time when in control
- Reactions toward defecations
- Previous attempts at resolution
- Frequency, if at school, home or both
- Regularity or irregularity of problem
Interventions

- Take records of the previous two weeks
- what, how, when, where
- Behavioral sequences around evacuations
- E.g. who washes the feces, who cleans the child, what happens afterward
Interventions

- Cognitive and behavioral strategies with positive reinforcements
- If possible, motivate and get cooperation for child
- Draw a “neutral” behavioral plan, without much emotional intensity
- Planes de contingencia, generalmente de consecuencias positivas por cooperación
Interventions

- Go to the toilet periodically and stay there a few minutes
- Reward for sitting there
- Points or positive marks for sitting or defecating
- Points for attempting to do it
Interventions

- Often a laxative is required, often at beginning, or an enema
- A laxative may be necessary for long term
- Changes in diet, increased amount of fibers or vegetable,
- Attempt to establish positive hygienic habits
- It may be necessary to teach child to “clean up”
Other interventions

- Depending on the dynamics observed
- If anxiety, alleviate anxiety
- Visualization
- Gradual approximation to feared stimulus
- Small steps toward feared object
- A medication for anxiety may be required
If family factors

- Avoid “cat and mouse” interactions
- Focus attention of child even without feces
- Diminish importance of the topic
- Work toward a positive relationship based on positive interactions
- Develop other areas of “specialization”
If themes of control

- Give the child the sensation of control in other areas
- Symbolic games where the child is in control
- Attempts to diminish resentment
- Expressing anger in alternative forms, verbalization, play, other behaviors
If additional factors

- Increase capacity for attention
- Be able to stop playing at the right time
- Go to the bathroom with enough time
- Promover greater abilities for self-control
- Diminish associated adverse stimuli, coldness of toilet, noise, etc.
If fear of growing

- Stimulate with to be a big boy or girl
- Convince it is not dangerous to grow
- Underline advantages of being an older child
- Games in which one grows and “ungrows” (Alice in Wonderland)
- Parents might prefer a child who acts according to age
If negative consequences have to be used

- “natural” consequences accompanied by much support and affection
- In general brief and related to an episode
- Not going out to play today
- Washing the soiled item
- Not obtaining prize
- Not go to an outing
- Not watch television today, etc.