



EDITORIAL

Vaginal reflux: A common cause of urinary incontinence[☆]



Reflujo vaginal, una causa frecuente de incontinencia urinaria

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Urinary incontinence is a common reason for care-seeking in the paediatric population that is more prevalent in girls and is found in 3–12% of children 6–8 years of age and in 1–12% of children 10–12 years of age.¹

The diagnostic approach to daytime urinary incontinence in girls without neurological disorders is essentially based on the medical history, physical examination, voiding diary and noninvasive urodynamic tests. Occasionally, when incontinence is associated with other symptoms of lower urinary tract dysfunction, other diagnostic tests are indicated to assess bladder anatomy and/or functioning, such as urodynamic or videourodynamic tests, and at times even cystourethrography.²

Vaginal or urethrovaginal reflux is seen as a minor cause of urinary incontinence. It affects girls that experience urine leaks in the minutes following voiding and is not associated with other symptoms. However, the pooling of urine in the vagina during micturition is a well-known phenomenon in both girls and women, and it does not always lead to urinary incontinence.³

Symptomatic vaginal reflux, or reflux causing urinary incontinence, is defined as incontinence manifesting in girls with sphincter control that leak urine within 10 min from spontaneous emptying, with normal micturition and without evidence of anatomical abnormalities in the physical examination.⁴

The three cases reviewed by Fernández Ibieta et al.⁵ in the current issue of this journal evince that while vaginal reflux is a known cause of urinary incontinence in prepubertal girls, it sometimes goes undetected. As happened in the cases described by these authors, it is not unusual for the diagnosis to be made after a series of tests⁵ or after treatment for urinary incontinence has failed. In fact, the actual incidence of vaginal reflux as a cause of urinary incontinence is not known.¹

In the case series presented by Bernasconi et al.¹ that analysed 39 girls with daytime urinary incontinence, the most frequent cause of the incontinence was vaginal reflux. They also found that patients with vaginal reflux were diagnosed at older ages, had a higher body mass index, and in two cases had labial fusion. Obesity was a statistically significant risk factor in this group of girls, a fact that has been documented by other authors.³

Although the absence of anatomical abnormalities is one of the diagnostic criteria for vaginal reflux, in my experience and that of other authors there are girls that have minor anomalies, such as hypospadias, labial fusion or labial redundancy that make it easier for urine to pool in the vagina.¹

The key to diagnosis is an appropriate history-taking, which ideally would be a structured history based on a questionnaire, as it is common for parents or girls to ignore the symptoms or fail to report them properly.²

These girls characteristically present postvoid dribbling, usually in the minutes following normal micturition, when they get off the toilet and start to move around. Vaginal reflux has not been identified as a cause of other urinary or local symptoms, such as vulvar pruritus or recurrent vulvovaginitis. However, in my personal experience it

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is often associated with these two manifestations, and in many instances girls with postvoid dribbling have recurrent courses of vulvar pruritus and vaginal discharge that respond favourably to simple measures recommended for patients with vaginal reflux.

While ultrasonography is not essential for diagnosis, it will show a normal urinary tract, and a nonsignificant postvoid residual urine volume is a requisite criterion.

Hydrocolpos in the absence of obstruction or any other anatomical anomaly is also described in the literature, consisting in a collection of urine in the vagina that is detectable by ultrasound and that empties completely with appropriate urination.³

The results of uroflowmetry with electromyography are normal, and in cases when videourodynamic testing or voiding cystourethrography is performed, the passage of urine into the vagina during emptying is easily detected.⁵

As expressed by Ibieta et al., treatment offers highly satisfying results, and consists in adopting a correct posture, spreading the legs wide during voiding to prevent the reverse flow of urine into the vagina.⁵ In most cases, it is important to explain strategies like straddling the toilet, so that girls can carry out these postural measures successfully.

In general, it is advisable that patients keep good toiletting habits, setting a schedule for voiding and training girls to stay seated on the toilet long enough to fully void both the bladder and the vagina.

Vaginal reflux is a minor urinary disorder that must be included in the diagnostic algorithm of daytime urinary incontinence to avoid unnecessary tests and diagnostic delays that may cause significant stress both to girls and to their families. Treatment has very favourable outcomes, and its success confirms the diagnosis.

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