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CASE REPORT

Acute urinary retention in a pre-school girl with constipation

Guillermo A. Ariza Traslaviña[a], Luiz Antonio Del Ciampo[b,*], Ivan Savioli Ferraz[b]

[a] *Hospital das Clínicas, Faculdade de Medicina de Ribeirão Preto, Universidade de São Paulo (FMRP-USP), Ribeirão Preto, SP, Brazil*
[b] *Department of Child Care and Pediatrics, Faculdade de Medicina de Ribeirão Preto, Universidade de São Paulo (FMRP-USP), Ribeirão Preto, SP, Brazil*

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KEYWORDS
Urinary retention;
Constipation;
Child

Abstract
Objective: To report a case of a preschool girl who developed acute urinary retention associated with constipation.
Case description: A girl aged six years old presented a 24 h history of inability to urinate. She was went twice to the emergency room during this period. In the first admission, 12 h after the onset of the symptoms, she presented abdominal pain and acute urinary retention. After the drainage by urinary catheterization of 300 mL of clear urine, she presented relief of the symptoms and, as urinalysis had no change, the patient was discharged home. Twelve hours after the first visit, she returned to the emergency room complaining about the same symptoms. At physical examination, there was only a palpable and distended bladder up to the umbilicus with no other abnormalities. Again, a urinary catheterization was performed, which drained 450 mL of clear urine, with immediate relief of the symptoms. Urinalysis and urine culture had no abnormalities. During the anamnesis, the diagnosis of constipation was considered and a plain abdominal radiography was performed, which identified large amount of feces throughout the colon (fecal retention). An enema with a 12% glycerin solution was prescribed for three days. During follow-up, the child used laxatives and dietary modifications, this contributed to the resolution of the constipation. There were no other episodes of urinary retention after 6 months of follow-up.
Comments: Acute urinary retention in children is a rare phenomenon and constipation should be considered as a cause.

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* Corresponding author.
E-mail: delciamp@fmrp.usp.br (L.A.D. Ciampo).

PALAVRAS-CHAVE
Retenção urinária;
Constipação intestinal;
Criança

Retenção urinária aguda em pré-escolar feminina com constipação intestinal

Resumo
Objetivo: Relatar um caso de criança que desenvolveu retenção urinária aguda associada à constipação intestinal.
Descrição do caso: Menina, 6 anos de idade, há 24 horas apresentou incapacidade de liberação de esfíncter vesical. Foi atendida por duas vezes em um serviço de emergência nesse período. Na primeira consulta, 12 horas após o início do quadro, apresentava dor abdominal e retenção urinária aguda, sendo realizada sondagem de alívio com saída de 300 mL de urina clara. Houve alívio imediato dos sintomas e, como o exame de urina tipo 1 não apresentou alterações, a paciente recebeu alta. No segundo atendimento, 12 horas após a primeira consulta, apresentava as mesmas queixas. Ao exame físico, observou-se apenas bexiga palpável e distendida até a cicatriz umbilical, sem outras alterações. Nova sondagem vesical foi realizada com saída de 450 mL de urina clara, com alívio imediato dos sintomas. Nenhuma anormalidade foi observada no exame de urina tipo 1 e urocultura. Durante a anamnese, foi levantada a hipótese diagnóstica de constipação intestinal, sendo realizada radiografia simples de abdome, que identificou grande quantidade de fezes em todo cólon (retenção fecal). Enema com solução glicerinada a 12% foi prescrito por três dias. Durante o seguimento a criança fez uso de laxativos e modificações na dieta que contribuíram para a resolução da constipação intestinal, não havendo repetição do quadro de retenção urinária aguda após 6 meses de acompanhamento.
Comentários: A retenção urinária aguda em crianças é um fenômeno raro e a constipação intestinal deve ser considerada como uma das causas.

Introduction

Acute urinary retention is defined as the incapacity to voluntarily urinate for more than 12 h, despite the presence of an intravesical urine volume higher than that expected for age [(age in years + 2) × 30 mL][1] or the presence of a distended bladder on physical examination. It is a common symptom in the adult male population, mainly due to benign prostatic hyperplasia,[2] whereas its presentation is rare in children, being associated to neurological diseases, infections in the urinary tract and other sites, severe voiding dysfunction, side effects of some drugs (especially anticholinergics), tumors, anatomical and emotional problems, as well as trauma.[3–5] Although mentioned in some studies, constipation does not appear among the most common causes of acute urinary retention.[3–5] Although the prevalence of intestinal constipation in our pediatric population is high,[6] the report of its association with urinary retention in the Brazilian medical literature is rare. Therefore, the aim of this article is to present the case of a six-year-old child with acute urinary retention and constipation, aiming to expand the possibilities for differential diagnosis and alert pediatricians at the initial evaluation of these patients.

Case report

A female child, aged six years old, born to non-consanguineous parents, with an ectopic left kidney (pelvic) and normal kidney function, came for the second time to the emergency department of a district health unit in the Ribeirão Preto city (state of São Paulo) showing irritability, generalized abdominal pain of moderate intensity and incapacity to release the bladder sphincter for 24 h. According to the mother, the child had no prior voiding disorder and did not use any medication, having been treated 12 h before at the same emergency department with similar complaints. At the first consultation, an increase in bladder volume was observed and urinary catheterization was performed, with 300 mL output of clear urine, followed by immediate abdominal pain improvement. On that occasion, a urinalysis test was requested, which showed no alterations, and the child was discharged home. However, the symptoms had reappeared in the last 12 h and the child was once again brought to the emergency department.

At the second consultation, the child was afebrile, weighed 18 kg, had a respiratory rate of 20 breaths per minute, heart rate of 90 beats per minute and blood pressure of 90/60 mmHg, and was between the 25th and 50th percentiles for height/age index by gender. Additionally, she presented with pain on palpation of the lower abdomen and shifting dullness in the hypogastric region, where a mass of cystic consistency was palpable, compatible with bladder distention, which reached the umbilicus. There were no alterations in the vulvovaginal area. New bladder decompression was performed through catheterization, with a 450 mL output of clear urine, followed once again by marked pain relief after the procedure. Urine samples were obtained for urine culture and urinalysis, which showed no alterations.

During the anamnesis, we obtained the information that the child had daily bowel habits with hard, dry and thick stools for at least three years, occasionally using oral