

Urinary Retention: A Sign of Occult Dysraphism

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Port J Pediatr 2022;53:543-4

DOI: <https://doi.org/10.25754/pjp.2022.17815>

Keypoints

What is known:

- Occult dysraphism is a critical diagnosis, with clinical signs and symptoms often being present since birth.
- Occult dysraphism manifestations can appear in late childhood, given the variability and different severity of the disease.

What is added:

- Urinary retention is a rare symptom of occult dysraphism that only appears in late childhood.
- A meticulous physical examination, and a good clinical history, often lead to the diagnosis in all age groups.

Introduction

A previously healthy 13-year-old female was admitted to the emergency room complaining of fever, bilateral lumbar pain, and abdominal pain for 72 hours. She did not report dysuria, pollakiuria, or incomplete voiding. Physical examination showed a palpable bladder and negative renal Murphy sign. Blood analysis revealed a C-reactive protein of 2.95 mg/dL with no leukocytosis. Urine analysis showed 612 leucocytes per high-power field. Reno-vesical ultrasonography reported a distended bladder (500 mL) and a significant post-voiding volume (300 mL). She was discharged home under antibiotics for a urinary infection. Based on our reevaluation, after 72 hours, she maintained the abdominal pain, although she had no fever since the first day of using antibiotics and urine culture was negative.

A more detailed history revealed intermittent urinary incontinence and decreased urinary frequency in the previous six months. A complete physical examination uncovered gluteal clefts, juxta-midline capillary malformation, and a mass on the left gluteal region (Fig. 1). These cutaneous markers were present at birth, and the mass had already been submitted to ultrasonography with no pathological findings reported. No motor or sensory deficits or bowel disorders were identified.

The adolescent was submitted to a lumbosacral spine magnetic resonance, which revealed a possible sacral bifidism, a large intra- and extracanal sacral lipoma, and a tethered cord on L4-L5 level, resulting in compression of the medullary conus and roots (Fig. 2). Treatment with an alpha-blocker receptor was started along with intermittent catheterization. She was referred to neurosurgery clinics. Currently, the patient is waiting for surgery.

Urinary retention is a rare manifestation in the pediatric population and can be a symptom of neurological disease. A thorough clinical history and a meticulous physical examination are mandatory. Recognition of red flags, such as cutaneous stigmata and fatty masses is crucial for the differential diagnosis of such conditions as occult dysraphism and tethered cord.¹⁻⁵

Keywords: Adolescent; Spina Bifida Occulta/diagnosis; Urinary Retention/diagnosis



Figure 1. Gluteal and lumbosacral region showing a capillary malformation juxta midline, a left-side mass and gluteal cleft deviation.

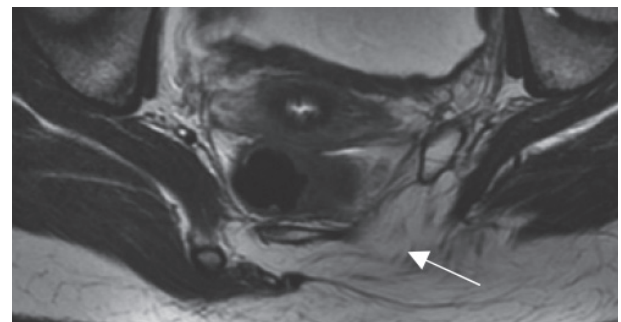


Figure 2. Magnetic resonance image showing a large sacral lipoma, compressing medullary roots.

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Received: 20/10/2020 | Accepted: ??/??/20?? | Published online: 01/04/2022 | Published: 01/04/2022

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Author Contributions

CGS, ACC and VS participated in the study conception or design. All authors participated in acquisition of data. All authors participated in the analysis or interpretation of data. CGD, ACC and VS participated in the drafting of the manuscript. All authors participated in the critical revision of the manuscript. All authors approved the final manuscript and are accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

Conflicts of Interest

The authors declare that there were no conflicts of interest in conducting this work.

Funding Sources

There were no external funding sources for the realization of this paper.

Protection of human and animal subjects

The authors declare that the procedures followed were in accordance with the regulations of the relevant clinical research ethics committee and with those of the Code of Ethics of the World Medical Association (Declaration of Helsinki 2013).

Provenance and peer review

Not commissioned; externally peer reviewed

Confidentiality of data

The authors declare that they have followed the protocols of their work centre on the publication of patient data

Acknowledgements

The authors thank everyone involved in the treatment and clinical orientation of this case.

Awards and presentations

Case report presented as a poster at the 20^o Congresso Nacional de Pediatria, Estoril, Portugal, 2019.

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