

# Navigating Complexity: Overactive Bladder in Prodromal Phase of Pyschosis Mimicking Acute Diarrhea in an Adolescent - A Challenging Therapeutic Journey

## *Exploring Unusual Symptomatology: A Case Study in Adolescent Mental Health*

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### Abstract-

**Introduction:** Urinary incontinence, impacting more women than men, poses significant health-related challenges. Understanding incontinence in adolescents remains limited, creating unique diagnostic challenges, particularly cases resembling diarrhea in young girls.

**Case:** A 12-year-old girl presented with prolonged loose stools resembling acute gastroenteritis, leading to hospitalizations. Despite treatments, her condition persisted, revealing a complex diagnostic challenge. Suspected cholera transformed into a dilemma when a stool sample turned out to be urine, prompting inquiries into incontinence type and possible fistulas. A multidisciplinary approach involving Pediatrics, Urology, Gynecology, and Psychiatry was crucial. Diagnosis indicated overactive bladder, treated with urotherapy and psychiatric evaluation, eventually unveiling underlying an early psychotic episode.

**Conclusion:** This case highlights the importance of a holistic diagnostic approach in pediatric cases. It underscores the intricate interplay between physical and mental health, emphasizing the need for multidisciplinary collaboration and the consideration of mental health in adolescent care.

**Index Terms:** Incontinence, Adolescent Health, Overactive Bladder, Multidisciplinary Approach, Psychotic Episode, Mental Health.

### BACKGROUND:

Urinary incontinence, affecting more women(19.8%) than men(6.4%)<sup>1</sup>, leads to health-related quality of life challenges and significant societal costs. It encompasses stress and urgency types, often overlapping. Its causes involve detrusor muscle issues, pelvic floor problems, and neural control complications<sup>2</sup>. Women with incontinence often encounter other related issues like constipation, diarrhea, fecal incontinence, and sexual function issues<sup>3</sup>. Adolescence, crucial for self-concept development, might link peer rejection to mental health risks<sup>4</sup>. Understanding urinary incontinence and lower urinary tract symptoms in adolescents is limited<sup>5</sup>. However, cases like urinary incontinence resembling diarrhea in young girls prompt unique diagnostic challenges.

### CLINICAL CASE DESCRIPTION:

A 12-year-old girl arrived at the pediatric outpatient department after experiencing loose, watery stools and sporadic abdominal-pain for 15 days, resulting in two recent hospitalizations for acute gastroenteritis. Despite antibiotic and symptomatic treatments, her condition persisted. Initially healthy, she developed uncontrollable watery stools and needed a wheelchair and intravenous fluids during her visit. She reported the inability to control extremely watery stool, resorting to using diapers and not passing urine since the diarrhea began. Medical examination revealed stable vital signs, no signs of dehydration or neurological deficits, normal abdominal, cardiovascular, and respiratory functions.

### MANAGEMENT AND OUTCOME:

On admission, cholera was suspected due to the rice-watery stools. The treatment involved doxycycline, ceftriaxone and other symptomatic management. A stool-sample was sent for various examinations including hanging-drop

preparation, but the whole scenario turned into a diagnostic dilemma when the stool sample was suspected to be urine during microbiological examination. Questions that led to management challenges were-Did the child had incontinence? Was it fecal or urinary incontinence? Is there ureterovaginal or rectovaginal fistula? Hence a multidisciplinary approach, engaging Pediatrics, urology and gynecology was adopted. Pediatrician examining the child reviewed the detailed medical-history and did a thorough neurological-examination but did not find a neurological cause predisposing to incontinence. To differentiate between fecal and urinary-incontinence, the child was catheterized. Surprisingly after catheterisation there was cessation of loose stools. Immediately after catheterisation, it was noticed that the residual urine volume was minimal, and the possibility of overflow-incontinence was ruled out. Her urinalysis was normal and urine culture was also sterile. A Micturating-cystourethrogram(MCU) and a uroflowmetry was done which also showed normal findings. Gynecologist examining the patient ruled out a genitourinary fistula by performing a methylene blue dye test. Urologist examining the patient suggested the possibility of an overactive-bladder leading to urinary incontinence. The Dysfunctional voiding symptom score (DVSS) questionnaire<sup>6</sup> was used to assess the lower urinary tract dysfunction. A score of more than 6 was found which further supported the suspicion. Non-invasive standard urotherapy like lifestyle modifications, pelvic floor muscle training was started along with an anticholinergic medication to treat overactive bladder. Her symptoms subsided within a few days and the planned invasive urodynamic study was deferred. Still there were certain questions still unanswered such as was it a genuine case of incontinence or misreporting of passage of body fluids and/ or a fear of soiling oneself? Did we miss any psychological or traumatic stressor that predisposed to the event? To address these concern psychiatric evaluation was conducted.

During the mental-health evaluation, the child exhibited evolving behaviors in the last half-year to eight months. These changes involved growing anxiety and a constant feeling of impending danger. Parents noticed a decline in academic performance leading to school refusal. Stress from impending exams seemed to trigger these changes. This raised concerns about an early stage of either a psychotic episode or an anxiety disorder. Consequently, treatment and continuous monitoring were advised. After discharge, the child was alert, aware, and cooperative with no neurological issues. However, during follow-up, the child experienced psychosis, treated successfully with Risperidone. Though symptoms are controlled, the focus now lies on the child's ability to resume normal function post-treatment, delaying a specific diagnosis of psychosis subtypes.

#### **DISCUSSION WITH REVIEW-OF-LITERATURE:**

This case, initially mistaken as diarrhea but connected to urinary incontinence possibly tied to a psychotic episode, stresses the necessity for a thorough diagnosis. Urinary problems, more prevalent in females, greatly impact life quality and expenses. A collaborative medical approach was crucial, demonstrating the importance of wide-ranging diagnoses and integrated treatment involving pediatrics, urology, gynecology, and psychiatry.

Reviewing the literature, it is evident that urinary-incontinence is not confined to the elderly population; it can affect individuals across age groups, including adolescents. The diagnostic approach should be focussed on proper history taking, clinical examination, bladder-diary, urine analysis, ultrasound and screening of behavioural problems<sup>7</sup>. Urinary-incontinence in paediatric population may occur due to variety of causes including overactive bladder, underactive bladder, voiding postponent, and dysfunctional voiding. In patients with OAB, uninhibited detrusor contractions cause peculiar behaviour patterns for avoiding or postponing incontinence by forceful leg crossing or squatting with heel pressed into the perineum<sup>8</sup>. In prepubertal girls, sometimes post void wetting occurs due to a rare entity called urethro-vaginal reflux. It occurs when urine is entrapped inside vagina by the labial folds because of poor toilet posture or compression by thighs<sup>9</sup>. The first line treatment of every case of urinary incontinence in children started with urotherapy followed by pharmacotherapy. Understanding the specific needs and challenges in pediatric cases is crucial for appropriate diagnosis and management. This case underscores the necessity of considering urinary incontinence as a potential diagnosis in children presenting with gastrointestinal symptoms, ensuring a thorough evaluation and suitable intervention.

The significance of mental-health in adolescent girls cannot be overstated during this critical developmental phase marked by profound physical, emotional, and social changes. Emphasizing mental-health is pivotal as it shapes their self-esteem, emotional-resilience, and overall well-being. The onset of psychosis often emerges after a prodromal phase, where nonpsychotic symptoms manifest. Recent research in early intervention, such as psychotherapy or antipsychotic medications, has aimed to address these early signs in young people. However, data on outcomes remain inconclusive. Treating psychotic symptoms in the pediatric population parallels antibiotic treatment for infections—selecting appropriate medication, monitoring side effects, and awaiting therapeutic results<sup>10</sup>. Vigilance is crucial, given prevalence rates of 9%–14% in adolescent populations<sup>10</sup>, necessitating careful consideration of mental-health in their care.

**CONCLUSION:**

The case stresses the need for comprehensive diagnosis, highlighting the link between physical and mental-health. Collaboration is vital in pediatric care, addressing both aspects crucial for effective treatment. Mental-health in adolescent girls is pivotal, requiring ongoing specialized attention in clinical practice.

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