Pediatr Urol Case Rep 2023; 10(6):348-349 DOI: 10.14534/j-pucr.20222675615

PEDIATRIC UROLOGY CASE REPORTS
ISSN 2148-2969
http://www.pediatricurologycasereports.com

Advances in pediatric neurogenic bladder care for spina bifida

Odis Ray*

Department of Urology, University of California, Berkeley, USA

✉ ***Odis Ray***
Department of Urology,
University of California,
Berkeley, USA,
E-mail: Oray64@gmail

Received: *27-Nov-2023, Manuscript No. PUCR-23-124291;* ***Editor assigned:*** *01-Dec-2023, PreQC No. PUCR-23-124291 (PQ);* ***Reviewed****: 15-Dec-2023, QC No. PUCR-23-124291;* ***Revised:*** *22-Dec-2023, Manuscript No. PUCR-23-124291 (R);* ***Published:*** *29-Dec-2023, DOI: 10.14534/j-pucr.20222675615*

Description

Neurogenic bladder in pediatric patients with spina bifida presents a complex set of challenges, often requiring comprehensive medical management strategies to maintain renal function, prevent urinary tract complications, and achieve continence. Spina bifida, a congenital condition affecting the spinal cord's development, frequently leads to neurogenic bladder dysfunction due to nerve damage, affecting bladder control. Managing this condition necessitates a multifaceted approach involving various interventions and ongoing care to ensure optimal outcomes for affected children.

Neurogenic bladder in spina bifida involves a lack of voluntary control over bladder function due to nerve damage, leading to issues such as overactive bladder, urinary retention, and incontinence. As a result, these children are at an increased risk of Urinary Tract Infections (UTIs), kidney damage, and renal impairment due to high bladder pressures and incomplete emptying. Regular monitoring and evaluation are important components of managing neurogenic bladder. Pediatric patients with spina bifida require frequent assessments, including renal ultrasounds, kidney function tests, and urodynamic studies to assess bladder function and monitor for complications such as hydronephrosis or vesicoureteral reflux.

Clean Intermittent Catheterization (CIC) is a primary treatment modality. This technique involves regularly emptying the bladder using a catheter, promoting complete bladder emptying and reducing the risk of UTIs. Educating both the child and caregivers about proper catheterization techniques is essential.

Medications like anticholinergics (e.g., oxybutynin, tolterodine) are often prescribed to manage overactive bladder symptoms by reducing bladder spasms and increasing bladder capacity, promoting continence. For cases of refractory overactive bladder not responding to medications, botulinum toxin injections into the bladder muscle may be considered. This intervention helps relax the bladder and improve capacity, reducing urgency and incontinence. In severe cases of bladder dysfunction unresponsive to conservative measures, surgical interventions such as urinary diversion or augmentation cystoplasty might be necessary. These surgeries aim to improve bladder capacity and function, reducing the risks of complications.

Bladder training programs and pelvic floor exercises can be beneficial for some children, helping improve bladder control and capacity. Maintaining proper hygiene, including clean catheterization techniques and encouraging adequate fluid intake, is important to prevent UTIs and related complications. A collaborative approach involving pediatric urologists, nephrologists,

physiotherapists, specialized nurses, and psychologists is essential to provide comprehensive care. Educating both the child and family about the condition, treatment options, and the importance of adherence to the management plan is vital for successful outcomes. As children grow, a gradual transition from caregiver-led care to encouraging independence in managing their bladder is important. This transition involves teaching and supporting the child in taking on more responsibility for their bladder management.

Effective management strategies, such as Clean Intermittent catheterization (CIC) and pharmacological interventions, help in emptying the bladder regularly, reducing the risk of urinary stasis, and subsequently preserving renal function. This can prevent kidney damage and associated complications. Regular bladder emptying through CIC and appropriate pharmacotherapy reduces urinary stasis, minimizes residual urine, and lowers the likelihood of UTIs. Preventing UTIs is important as they can lead to kidney damage and recurrent infections.

Conclusion

In conclusion, the medical management of neurogenic bladder in pediatric patients with spina bifida is multifaceted and requires a tailored approach to address individual needs. The goal is to optimize bladder function, prevent complications, and improve the overall quality of life for affected children. Regular follow-ups, adjustments in the management plan, and ongoing support are vital for successful long-term care and adaptation to the child's evolving needs.