

//  
//  
//

( )

,

\*

:

%

:

% /

% /

(% /)

:

(% )

% /

% /

%

% /

(% /)

(

**CIC)**

(% /)

% /

/ ± /

:

:

Occult spinal dysraphism spina bifida cystica

msharif@sbmu.ac.ir :

.( )

(OSD) Occult spinal dysraphism

.( )

augmentation

.( )

.( )

cystoplasty

)

(

.( )

lower )

%

.( )

(motor neuron lesion

(

)

(VCUG) voiding cystourethrography

%

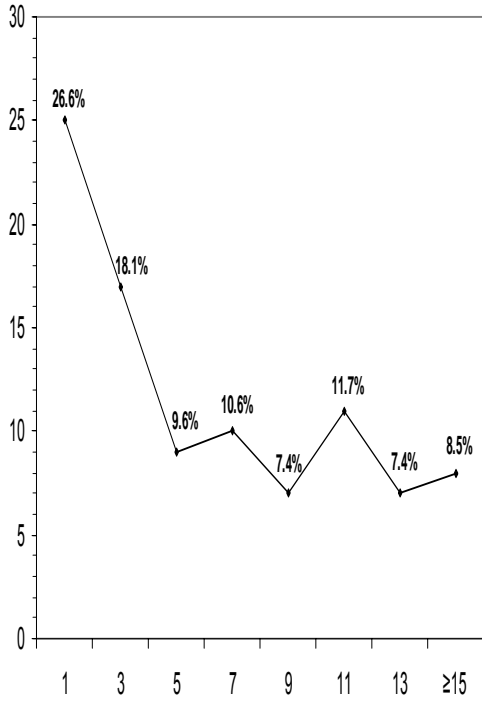
DMSA scan

.( )

clean intermittent catheterization

( ) lapides

(CIC)



( )

(UDSs)

)

VCUG ( )

( ) ( )

CIC )

( )

OSD ( % / )

( % ) ( % )

( % )

( % / )

. / ± / ( % / )

% ,

( % ) ( % )

( % ) ( % )

MRI ( % / ) ( % / )

/ ± /

( % )

OSD ( % / ) ( % / )

( % / ) ( % / )

( % / )

(OSD) occult spinal dysraphisms

( % / )

( % / )

% /

( ) /

( % / )

( % / )



(% / )

/

(% / )

vesicostomy

% /

(bladder neck reconstruction)

( )

Young-Dees

.Burch colposuspension

continent catheterizable stoma

.( )

(% / )

(Mitrofanoff principle)

(% / )

cystoplasty

.( )

sigmoid cystoplasty

ileocystoplasty

) bladder autoaugmentation

(OSD) occult spinal dysraphism

gastrocystoplasty

(

( )

(% / )

(VUR)

.( )

OSD

lower motor neuron

UDSs

VUR

upper motor neuron

.( )

( )

%

VUR

OSD

( )

.( )

OSD

( % / )

CIC

crede'

( / )

)

UDSs

%

OSD

.( )

% /

( )

%

.( )

/

)

(

%

( )

.( )

%

.( )

%

CIC

)

.( )

CIC

% /

(

%

.( )

( )

%

.( )

CIC

( )

( )

( )

)

(augmentation cystoplasty

)

continent catheterizable stoma

(

UDSs

.( )

.( )

/

.( )

(% / )

( )

---

## REFERENCES

---

1. Lewis D. Neurologic disease. In: Behrman RE, Kleigman RM. Nelson Essentials of Pediatrics. 5<sup>th</sup> ed. Philadelphia, W.B. Saunders Company. 2002; P: 767-8.
2. Bauer SB, Koff SA, Jayanthi VR. Neuropathic dysfunction of the lower urinary tract. In: Walsh PC. and coworkers. Campbell's Urology. Vol 3. 8<sup>th</sup> ed. Philadelphia, W.B. Saunders Company. 2002; P: 2058-45.
3. Cohen AR, Robinson S. Early management of myelomeningocele. In: McLone DG and co-workers. Pediatric Neurosurgery. 4<sup>th</sup> ed. Philadelphia, W.B. Saunders Company. 2001; P: 241-77.
4. Elder JS. Urologic disorders in infants and children. In: Behrman RE, Kleigman RM, Jenson HB. Nelson Textbook of Pediatrics. 17<sup>th</sup> ed. Philadelphia, W.B. Saunders Company. 2004; P: 1808-10.
5. Lapidus J, Diokno AC, Silber SJ, Lowe BS. Clean intermittent self catheterization in the treatment of urinary tract disease. J Urol 1972; 107: 458.
6. Bauer SB. The effects of challenges of bladder outlet obstruction. J Urol 2000; 163: 3.
7. McLone D. Care of neonate with myelomeningocele. Neurosurg Clin North Am 1994; 44: 319-21.
8. Little DM, Gleeson MJ, Hickey DP, Donovan MG, Murphy DM. Renal transplantation in patients with spina bifida. Urology 1994; 44: 319-21.
9. McLone D, Czyzewsky D, Reimondi A. Central nervous system infections as a limiting factor in the intelligence of children with myelomeningocele. Pediatrics 1980; 70: 338-42.
10. Atala A, Bauer SB, Dyro FM, Shefner J, Shillito J, Sathi S, et al. Bladder function changes resulting from lipomeningocele repair. J Urol 1992; 148: 592-4.
11. Keating MA, Rink RC, Bauer SB, Krarup C, Dyro FM, Winston KR, et al. Neurourologic implications of changing approach in management of occult spinal lesions. J Urol 1988; 140: 1299-391.
12. Satar N, Bauer SB, Scott RM, Shefner J, Kelly M, Darbey M. Late effects of early surgery on lipoma and lipomeningocele in children less than two years old. J Urol 1997; 157: 1434-7.
13. Cornette L, Verpoorten C, Lagae L, Van Calenbergh F, Plets C, Vereecken R, et al. Tethered spinal cord in occult spinal dysraphism: Timing and outcome of surgical release. Neurology 1998; 50: 1761-5.
14. Proctor M, Bauer SB, Scott MR. The effect of surgery for the split spinal cord malformation on neurologic and urologic function. Pediatr Neurosurg 2000; 32: 13-9.
15. Pierre-Kahn A, Zerah M, Renier D, Cinalli G, Sainte-Rose C, Lellouch-Tubiana A, et al. Congenital lumbosacral lipomas. Childs Nerv Syst 1997; 13: 298-334.
16. Tanaka H, Kakizaki H, Kobayashi S, Shibata T, Ameda K, Koyanagi T. The relevance of urethral resistance in children with myelodysplasia: Its impact on upper urinary tract deterioration and the outcome of conservative management. J Urol 1999; 161: 929-32.
17. Edelstein RA, Bauer SB, Kelly MD, Darbey MM, Peters CA, Atala A, et al. The long term urologic response of neonates with myelodysplasia treated proactively with intermittent catheterization and anticholinergic therapy. J Urol 1995; 154: 1500-4.



- 
18. Kasabian NG, Bauer SB, Dyro FM, Colodny AH, Mandell J, Retik AB. The prophylactic value of clean intermittent catheterization and anticholinergic medication in newborns and infants with myelodysplasia at risk of developing urinary tract deterioration. *Am J Dis Child* 1992; 146: 840-3.
  19. Flood HD, Ritchey ML, Bloom DA, Huang C, McGuire EJ. Outcome of reflux in children with myelodysplasia managed by bladder pressure monitoring. *J Urol* 1994; 152: 1574-7.
  20. Bauer SB. Vesico-ureteral reflux in children with neurogenic bladder dysfunction. In: Johnston JH editor. *International Perspectives in Urology*, vol 10. Baltimore, Williams & Wilkins. 1984; P: 159-77.
  21. Oi S, Yamada H, Matsumoto S. Tethered cord syndrome versus low-placed conus medullaris in an over-distended cord following initial repair for myelodysplasia. *Childs Nerv Syst* 1990; 6: 264-9.