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**VESICourethRAL DYSFUNCTION ASSOCIATED WITH
MYELODYSPLASIA:
PRINCIPLES IN DIAGNOSIS AND TREATMENT.**

Aims of the study: To diagnose and classify the clinical syndrome of lumbosacral myelodysplasia (LM) according to detrusor status, functional sufficiency or inadequacy of the internal urethral sphincter and or the external urethral sphincter (EUS) [1,2].

Methods: Seventy-four children, ranging in age from 3 to 10 years (mean 6 years) were investigated in the urodynamic center of our department. They were submitted to a complete urodynamic investigation including cystometrogram (CMG), static urethral pressure profile (SUPP), and electromyographic (EMG) study of the EUS response to various stimuli, and synchronously with various phases of bladder filling and voiding. SUPP was studied with a 5 Fr urethral catheter and a concomitant urine flow was recorded in those patients who were able to void during the urodynamic evaluation. The associated vesicourethral dysfunction was classified clinically as either failure to empty or failure to store or a combination of both (emptying and storage) [3, 4].

Results: With a higher neurologic level bladder hyperreflexia was found which when combined with a proximal urethral sphincter insufficiency and a coordinated EUS response was associated with urinary incontinence. The most common type of vesicourethral dysfunction was failure to empty due primarily to bladder hyporeflexia. A combined failure of urinary emptying and storage was observed less frequently in low lesions and was due to sphincteric damage, either acute or chronic, secondary to muscle fibrosis. Bladder hyperreflexia was seen in 18 patients, bladder hypoactivity or areflexia in 49 patients, and a combined failure of urinary emptying and storage in 7 patients.

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Conclusions: A treatment protocol should be based on a detailed urodynamic evaluation of myelodysplasia patients. Administration of anticholinergic drugs for bladder overactivity and instituting a program of intermittent catheterization in cases of detrusor underactivity are appropriate choices when indicated.

Securing an intravesical pressure in levels less than 40cmH₂O is also important to prevent deterioration of upper urinary tracts. Crede maneuver should not be recommended as a means of bladder emptying because it can lead to complications such as bladder trabeculations or diverticula, vesicoureteral reflux and hydroureteronephrosis. It can only be recommended in documented bladder neck insufficiency provided that during this maneuver the intravesical pressure is not higher than 40cmH₂O. As a word of caution these patients should be followed regularly with a complete neurourological evaluation especially during growth spurts to rule out tethering of the cord [2- 5].

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