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ANALYSIS OF THE ETIOLOGY OF URINARY INCONTINENCE IN THE MYELODYSPLASTIC CHILDREN WITH URODYNAMIC EVALUATION AND THE OUTCOME OF CONSERVATIVE MANAGEMENT

Aims of study

The etiology of incontinence in the myelodysplastic children is usually not clear-cut [1] Their neurourlogical lesion and resultant urodynamic parameters change with time.[2] Hence the ideal management of these patients must be individualized according to their urodynamic results [3] We evaluated the results of videourodynamic study of 114 children with myelodysplasia to analyze the etiology of urinary incontinence and to recommend appropriate therapeutic modalities.

Methods

Of 114 children (63 boys and 51 girls) with myelodysplasia who had visited in meningomyelocele clinic, 56 had meningomyelocele (mean age 7.4 years at last follow-up) and 58 had lipomeningomyelocele (mean age 8.6 years). Considering the time when normal children achieve urinary continence, we chose the children older than 3 years. Videourodynamic evaluation was performed in every child. Uninhibited contraction, detrusor-sphincter dyssynergia, and bladder leak point pressure were checked. Valsalva leak point pressure was measured in selective cases and static urethral profilometry was performed in nearly all children. Bladder compliance was also calculated.

Results

At the initial evaluation, 30 of the 114 children (26.3%) were dry and the remainder 84 (73.7%) had incontinence In the continent group, detrusor hyperreflexia, detrusor areflexia and normoreflexia were in 2 (6.7%), 4 (13.3%) and 24 (80.0%), respectively. In the same group, only 7 (23.3%) revealed low bladder compliance On the contrary, in the latter group, detrusor hyperreflexia, detrusor areflexia and normoreflexia were in 38 (45.2%), 40 (47.6%) and 6 (7.1%) Most of them (68, 81.0%) revealed low bladder compliance. After this initial evaluation, clean intermittent catheterization with or without anticholinergic drug therapy was offered to the incontinent group.

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Among them, 38 children (45 3%) were dry or improved by this conservative therapy, but 43 (51.2%) treated similarly had no improvement. At this moment, any specific differences were not identified in the urodynamic results of the two distinct groups, except detrusor leak point pressure and bladder neck opening on filling cystometry monitored by fluroscope. Besides low detrusor leak point pressure and bladder neck opening on filling in the poor responder group, low compliance to the conservative therapy was an additional factor for persistent incontinence individually Eventually, 11 children of the group underwent augmentation enterocystoplasty including 3 children received rectus fascial bladder neck sling simultaneously, and in one child bladder neck closure was done. All children except one female child have achieved urinary continence postoperatively.

Conclusions

From the above data, we think that a careful urodynamic evaluation is needed to classify the etiology of urinary incontinence in myelodysplastic children and that urinary continence is achievable in more than half of the patients using pertinent conservative therapy. If the children have prolonged incontinence despite of this noble therapy, surgical treatment based on the results of urodynamic evaluation must be considered to achieve good results.

References

1. J Ped Surg 1991; 26: 466-71
2. J Urol 1988; 140: 1499-502
3. Eur Urol 1998; 34(2): 148-53