Hypothesis / aims of study

The aim of this study is to evaluate the importance of a closed bladder neck during videourodynamic studies in relation to urinary continence following augmentation ileocystoplasty in myelodysplastic patients.

Study design, materials and methods

We retrospectively reviewed the records of 19 myelodysplastic patients who underwent augmentation ileocystoplasty, using a standard technique. All patients had a closed bladder neck during preoperative videourodynamic studies (VUDE). Their charts, imaging studies and VUDE data before and after surgery were analyzed. The mean follow up after augmentation ileocystoplasty was 7.9 years.

Results

The overall incidence of urinary incontinence following augmentation ileocystoplasty was 16%. Continence was achieved in 16 of 19 (84%) patients with no additional procedures. No significant upper tract changes developed. A clinically apparent tethered cord significantly hindered the achievement of continence. No significant correlation was found between the videourodynamic parameters and obtaining continence. Univariate analysis showed that tethering of the spinal cord had a significant negative correlation to postoperative urinary continence in this group of patients.

Interpretation of results

Neurological deterioration caused by spinal cord tethering is important prognostic factor for impaired urinary continence mechanism. This may be due to the result of ischaemic changes from tension on the cord, especially on the anatomical areas of bladder sphincteric functions.

Concluding message

Our study provides evidence that a closed bladder neck as assessed by preoperative videourodynamic does not preclude urinary continence. It is likely that a coexisting tethered cord would actually point to postoperative urinary incontinence in this myelodysplastic group.

Specify source of funding or grant

University Medical Center Groningen

Is this a clinical trial?

No

What were the subjects in the study?

HUMAN

Was this study approved by an ethics committee?

Yes

Specify Name of Ethics Committee

Prof.Dr. Nijman

Was the Declaration of Helsinki followed?

Yes

Was informed consent obtained from the patients?

Yes