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Title (type in
CAPITAL
LETTERS)RESOLUTION OF BLADDER INSTABILITY
FOLLOWING OPEN ANTIREFLUX SURGERY

Aims of Study Children with vesicoureteral reflux often have symptoms of bladder instability, including day and night incontinence. Resolution of these symptoms following antireflux surgery was studied.

Methods Eighteen children (age 3.8 to 10.5 years; mean 5.2 years; 2 males, 16 females), with primary vesicoureteral reflux and symptoms of bladder instability underwent antireflux surgery using the transtrigonal technique. All had diurnal incontinence, urgency, and frequency, and were receiving anticholinergic therapy and antimicrobial prophylaxis. Despite anticholinergic therapy, 5 still had significant diurnal incontinence. Of the children, 15 also had nocturnal enuresis, and children over 6 years of age were receiving desmopressin acetate. Children with a neuropathic bladder were excluded. Reflux was unilateral in 8 and bilateral in 10 children. Reflux grade was I (2), II (3), III (18), IV (5), and V (0). Indications for reflux correction included breakthrough urinary tract infection (12), persistent reflux (4), and noncompliance (2). Assessment of surgical outcome, continence and need for anticholinergic therapy were performed at 3 months and 1 year post-operatively.

Results Post-operatively, none had persistent reflux. Obstruction occurred in 1/28 ureters and contralateral reflux occurred in 2/8 ureters. Of the 18 children, 6 had total resolution of bladder instability 3 months post-operatively, such that anticholinergic therapy was unnecessary. Of the 5 with significant incontinence pre-operatively, 1 had no incontinence off medication, 3 were dry with anticholinergic therapy, and 1 was improved. All 18 children were voiding to completion and had a stable pattern 1 year post-operatively.

Conclusions Following open antireflux surgery, resolution of bladder instability occurred in 1/3 of affected patients. In patients who were poorly controlled with anticholinergic therapy and a voiding regimen pre-operatively, all were improved post-operatively. The possible mechanisms for these results will be discussed.