

PELVIC FLOOR MUSCLE RETRAINING FOR PEDIATRIC PATIENTS WITH VOIDING DYSFUNCTION

Aims of Study

To determine and compare the effect of pelvic floor muscle retraining assisted by simple verbal feedback among pediatric patients with voiding dysfunction

Methods

This a quasi experimental before and after study. All pediatric patients from January 1999-December 2001 with voiding dysfunction confirmed by history, voiding assessment chart, 72 hour bladder chart, uroflowmetry-electromyography (EMG), and voiding cystourethrogram (VCUG) were enrolled in the pelvic floor retraining program. All patients had failed improvement of symptoms with anti cholinergic for one year. Pelvic floor exercise assisted by simple verbal feedback was done for a period of six months for all patients. Statistical analysis was done using Mc Nemars test at 95% confidence interval with p value of <0.05.

Results

A total of 29 subjects, 5 boys and 24 girls (mean age of 5.7 years) completed the program and were available for evaluation. Frequency was decreased in 69% (20) in one month, 82.8% (24) in three months, and 89.7% (26) in six months. Voiding was continuous after the program in 90% (9/10) of those who presented with staccato voiding pattern. Functional bladder capacity was increased in 70% (22) in one month, 86.2% (25) in three months, and 93.1% (27) in six months. Two patients out of three had resolution of vesicoureteral reflux after six months.

Maximum flow showed an increased in 76% (22) in one month, 89.7% (26) in three months and six months. Voiding was complete without postvoid residual urine.

P value for all parameters was <0.05, meaning after pelvic floor exercises, frequency of voiding significantly decreased, character of voiding improved from staccato to continuous flow and functional bladder capacity increased. In terms of uroflow- EMG, after pelvic floor exercises maximum flow significantly increased and EMG improved from uncoordinated to coordinated voiding pattern.

Conclusions

Pelvic floor muscle retraining resolved bladder sphincter dyscoordination in 96% of patients.