

## PATIENT QUALITY OF LIFE AFTER AUGMENTATION CYSTOPLASTY FOR NEUROGENIC BLADDER DYSFUNCTION

### Hypothesis / aims of study

Augmentation cystoplasty is accepted surgical treatment for patients with a neurogenic bladder and either upper tract dilatation and/or intractable urinary incontinence. The results and complications of this procedure are well known; however, the quality of life in these patients is not well understood. The Qualiveen questionnaire is a 40-item urinary disorder (UD)-specific health related quality of life (HRQL) instrument validated instrument in patients with neurogenic bladder (1). The Qualiveen database with 400 neurogenic bladder patients was designed to allow comparison of different cohorts to a standardized group of patients. The objective of this study was to measure quality of life outcomes in patients who had undergone augmentation cystoplasty with this validated questionnaire and to compare our cohort to the standardized group.

### Study design, materials and methods

All 151 patients who had undergone augmentation cystoplasty at our institution were identified. Research Ethics Board approval was obtained for a confidential mail questionnaire. All living patients (n=140) were sent the Qualiveen questionnaire. The domains of specific impact of urinary problems (SIUP) on Quality of Life (inconvenience, restrictions, fears, and daily life) as well as the overall SIUP index were calculated. In these domains, a lower score represents a lesser impact of their urinary problems and therefore a better quality of life. The Quality of Life (QoL) index was also calculated, and in this domain a higher score represents of better quality of life. These were compared by gender and age. Further comparison to the Qualiveen database was performed.

### Results

45 patients returned a completed questionnaire (32% response rate). Of the completed questionnaires, 35 had a neurogenic etiology and were included in this analysis. There were 24 women and 11 men. 20 patients had spina bifida, 10 spinal cord injuries, 3 had multiple sclerosis and 2 had sacral dysgenesis. Mean age was 43.7 years (range 21.1-64.6). The mean duration of follow-up was 9.6 years (range 1.6-20.5). Eighteen patients underwent augmentation cystoplasty alone and 17 patients underwent both augmentation cystoplasty and creation of a continent stoma. Thirty patients also underwent continence procedures. Mean patient scores and Standard Deviation (SD) were inconvenience 1.12 (1.03), restrictions 1.60(1.04), fears 1.17 (0.79), impact 1.17 (1.12), SIUP 1.27 (0.85), and QoL index 0.83 (0.73). These all compared favourably to the mean patient scores from the database: inconvenience 1.40, restrictions 1.79, fears 1.67, impact 1.23, SIUP 1.54 and QoL index of 0.22. Men in our group reported similar quality of life to women in both SIUP score (1.55 vs. 1.14 respectively) and QoL index (0.93 vs. 0.62, p=0.18 (2 tailed t-test)). Patient quality of life was improved in our patients over 40 years of age, as compared to those less than 40 (SIUP score 0.88 vs. 1.72, p=0.002). There were no differences in quality of life between paraplegic and quadriplegic patients (SIUP score 0.71 vs. 1.00, p>0.2).

### Interpretation of results

The response rate was expected given the degree of physical impairment of the selected population and the length of the questionnaire. In this group of patients augmentation cystoplasty provided a good quality of life related to their neurogenic bladder dysfunction. The patients over 40 years of age reported a slightly better outcome than younger patients.

### Concluding message

Quality of life in our cohort is superior to those from the Qualiveen database - 70% of whom have not undergone any surgical intervention.

1. Eur Urol 2001; 39(1):107-13.

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**HUMAN SUBJECTS:** This study was approved by the Sunnybrook Health Sciences Centre and followed the Declaration of Helsinki Informed consent was obtained from the patients.