Hypothesis / aims of study
Studies evaluating outcomes after urethral diverticulectomy are limited by small numbers and short-term follow-up. We present the largest reported cohort of women with urethral diverticula and evaluate both surgical outcome and long-term voiding parameters after urethral diverticulectomy.

Study design, materials and methods
Subjects who underwent diverticulectomy at our institution between 1996 and 2008 were mailed surveys. These included questionnaires detailing additional surgeries and number of UTIs. Subjects were also sent the UDI-6. For purposes of determining surgical recurrence, charts of women not responding to the survey were reviewed.

Results
One hundred and twenty-two subjects were identified as having a urethral diverticulectomy during the study period. Of these, 13 (10.7%) had an eventual recurrence requiring repeat surgical excision. Patients with a proximal diverticulum, multiple diverticula, or prior pelvic or vaginal surgery (excluding prior diverticulectomy) were more likely to recur (p=0.01, 0.03, <0.001, respectively). Of the sixty-one women (50%) responding to our survey, mean follow-up was 50.4 months. Twenty-four (39.3%) had a UTI within the last year, with 14 (23%) women having 3 or more UTIs over the past year. 16 (26.2%) had persistent pain or discomfort with urination. Mean (standard deviation) total UDI-6 was 31.1 (25.5) in the survey responders.

Interpretation of results
The reoperation rate for primary urethral diverticulum repair in our contemporary series (9.2%) was consistent with previously published rates in the literature for a primary repair. Patients presenting with a prior failure, more proximal, circumferential, or multiple diverticula should be counseled with regards to their increased risk of recurrence requiring repeat surgical excision. Several years after repair, a high percentage of women have persistent urinary symptoms and frequent UTIs.

Concluding message
To our knowledge this represents the largest study with the longest follow-up after urethral diverticulectomy. Patients with proximal or multiple diverticula, or those with prior pelvic surgery should be counseled appropriately with regards to recurrence and persistent voiding dysfunction.

Specify source of funding or grant
None

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
Cleveland Clinic Institutional Review Board

Was the Declaration of Helsinki followed?
Yes

Was informed consent obtained from the patients?
Yes