

TRENDS IN MESH USAGE AND RESIDENT INVOLVEMENT FOR VAGINAL SURGERY FROM THE NATIONAL SURGICAL QUALITY IMPROVEMENT PROGRAM

Hypothesis / aims of study

Recent legal questions regarding the usage of mesh has made many physicians cautious about using this in pelvic surgery. Concurringly, the potential decreased usage could impact resident teaching and training using these materials. The goal of this analysis was to assess the utilization of mesh procedures over time from the National Surgical Quality Improvement Database (NSQIP) and to compare these trends with resident involvement.

Study design, materials and methods

Using the NSQIP database, we pooled surgical data from multiple vaginal procedures, including anterior and posterior colporrhaphy, paravaginal defect repair, enterocele repair, and colpexy using CPT coding for years 2010 through 2012. We stratified this data by the modifier associated with mesh usage at the time of the procedure. This analysis included both urologic and gynecologic surgeons. We queried within each group to determine resident participation in the procedure. Resident involvement was assessed overall and then stratified based on year of procedure.

Results

We identified a total of 6,924 pelvic reconstruction surgeries of which 1280 cases (18.5%) utilized mesh. Mesh utilization decreased over time from 427 (26%) of cases in 2010 to 481 (21%) in 2011 and 372 (12%) in 2012 ($p < 0.001$ for trend). Overall, residents were more likely to participate in a procedure which did not involve mesh usage (28.4% vs 24.5%, $p = 0.0068$). When stratified by year we found a decrease in resident involvement for all procedures. In consecutive years resident involvement in mesh cases decreased from 155/427 (36%) in 2010 to 106/481 (22%) in 2011 and finally 57/332 (15%) in 2012 ($p < 0.01$ for trend).

Interpretation of results

The overall number of vaginal urologic procedures utilizing mesh decreased each year between 2010 and 2012. Similarly, the frequency of resident involvement in these cases decreased each year.

Concluding message

In a review of NSQIP data from 2010 through 2012, vaginal pelvic reconstruction procedures had decrease usage of mesh and resident involvement. Resident training in the utilization of vaginal procedures that include mesh is likely negatively affected by the steep drop in overall usage and exposure.

Disclosures

Funding: NONE. **Clinical Trial:** No **Subjects:** HUMAN **Ethics not Req'd:** This is a quality improvement study utilizing a national database. The database itself does not include any identifiers for the participants included. **Helsinki:** Yes **Informed Consent:** No