

PROTECTION AGAINST TVT SLING INFECTION: HOW MUCH PROPHYLAXIS IS ENOUGH?

Aims of Study

Liberal antibiotic prophylaxis following the surgical use of synthetic materials is widely recommended owing to the much-feared development of postoperative infectious complications. In these times of increasing numbers of drug resistant microbial organisms, judicious use of antibiotics is advised. We attempted to assess the need for postoperative antibiotic use following uncomplicated vaginal surgery involving the polypropylene transvaginal tape (TVT) anti-incontinence sling.

Methods

A review of the surgical log of a single surgeon (HBG) at our institution revealed 35 cases of TVT placement or manipulation between January 2001 and January 2002. All procedures were performed either as an ambulatory or short (<23 hours) observational-stay surgery. Patients were initially evaluated according to the procedure performed: Group I included TVT placement alone; group II, TVT placement with concomitant prolapse repair; and group III, TVT manipulation to include sling incision (modified urethrolysis) or vaginal flap repair of exposed polypropylene mesh. Clinical charts were reviewed to assess intraoperative and postoperative antibiotic use, as well as follow-up postoperative clinical assessments. The two follow-up visits analyzed were at postoperative day 3 - 5, and again at 4 weeks. Main outcome measures were development of symptomatic urinary tract infection and/or surgical wound infection.

Results

Of the 35 women identified (mean age 60; range 36 - 87), 21 comprised group I, 9 comprised group II (3 cystoceles, 2 rectoceles, 1 combined anterior-posterior repair), and 5 comprised group III (3 sling incisions, 2 vaginal flap repairs). All patients received immediate preoperative intravenous antibiotics to include a first generation cephalosporin (e.g. Kefzol) or, in the case of prior cephalosporin or penicillin sensitization, vancomycin. Only ten patients received additional prophylaxis via oral antibiotics for a median of 3 postoperative days (7 from group I, 3 from group II). There were no differences in patient characteristics or degree of comorbidities to account for the additional antibiotic prescription in these patients. No intraoperative or postoperative complications were encountered. Regardless of group, no patient developed a symptomatic urinary tract infection nor surgical wound infection during the postoperative period observed.

Conclusions

Our experience portends a low risk of postoperative infectious complications following simple synthetic TVT sling procedures. Perhaps the impermeable sheath protects the polypropylene mesh against contamination with vaginal flora during placement. Preoperative prophylaxis with a single dose intravenous antibiotic seems to be sufficient, thereby eliminating the need for prolonged postoperative antibiotic use. However, treatment decisions should ultimately be individualized, taking into account various preoperative factors such as comorbidities and functional status. For the uncomplicated TVT procedure, postoperative antibiotic use appears to be superfluous.