

Opportunistic salpingectomy: an appropriate procedure during all pelvic surgeries



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Ovarian cancer, specifically the epithelial subtype, is the deadliest gynecological disease affecting US women. The overall incidence increases with age with the median age of 63 years at diagnosis.¹ Unlike breast and cervical cancers, there is no supported standard screening method to detect preinvasive or early ovarian cancer. The result is 70% of women present with late-stage III and IV disease and poor prognoses.²

With such disheartening statistics, the prevention of ovarian cancer has become an important aspect in attempts to decrease its incidence. For those at high risk of developing ovarian cancer, secondary to genetic mutations and/or family history, studies have shown that risk-reducing bilateral salpingo-oophorectomy upon completion of child-bearing should be the standard of care.¹

However, in young premenopausal women with no genetic or family history affecting their baseline risk of ovarian cancer, the risks of early age oophorectomy greatly outweighs the benefits. This leads to recent studies that have focused on the role of fallopian tubes in the development of serous and nonserous ovarian cancer,³ with more specific areas of concern localized to the fimbria and distal end of the fallopian tubes.^{4,5} Thus, it is no surprise that excising all or portions of the fallopian tubes has been shown to decrease one's risk of ovarian cancer.⁶⁻⁸

The Nurses' Health Services study, published in 2014, demonstrated that bilateral tubal ligation decreased the risk of epithelial ovarian cancer with a hazard ratio 0.76 (95% confidence interval, 0.64–0.90).⁶ This effect, however, was more prominent in nonserous cancers (hazard ratio, 0.57 [95% confidence interval, 0.40–0.82]).

Transitionally in the United States, the surgical methods of choice for tubal ligation involve excision of the isthmic position of the tube; cauterization is also used, particularly during laparoscopic procedures. Thus, while having a significant impact on women's health, bilateral tubal ligation leaves in situ portions of fallopian tubes that still pose a risk to women in the form of

cancer and unintended pregnancy, with no added benefit to the health. As demonstrated by Falconer H et al,⁹ opportunistic salpingectomy at the time of pelvic surgery for women at average risk has been found to decrease the risks of ovarian cancer when compared with tubal ligation.

Venkatesh et al have developed a decision-analytic and cost-effectiveness model, involving a large theoretical cohort of 110,000 pregnant women undergoing cesarean delivery who desired permanent sterilization and whom they followed up for 40 years.¹⁰ Within this model, patients underwent either tubal ligation or salpingectomy during cesarean delivery, and a third arm received a long-acting reversible contraception. This type of contraception was found to be the least effective and costliest option and was thus dominated.

An important result of the paper shows that when compared head to head, salpingectomy and tubal ligation are both cost-effective strategies when performed at the time of cesarean delivery. Although tubal ligation was more cost saving than salpingectomy, salpingectomy was found to lower the number of ovarian cancer diagnoses and deaths compared with tubal ligation by 479 and 234 cases, respectively.

Based on sensitivity analyses of key variables in the study, the authors found that because of uncertainty in the baseline estimates used in creating the study model, tubal ligation was the preferred strategy in majority of simulation trials. With these results, the authors conclude that the risks and benefits of salpingectomy with cesarean delivery need to be better defined before a preferred strategy can be determined. While support for their conclusion is presented throughout the paper via sensitivity analyses and Monte Carlo simulation trials, this conclusion is somewhat troublesome.

Given the statistics on cancer and pregnancy reduction rates placed by opportunistic salpingectomy, it can be stated that we as practitioners are doing a disservice to our patients by not performing opportunistic salpingectomies during a pelvic surgery. A cesarean delivery may be the only time in a woman's life in which she undergoes pelvic surgery. If permanent sterilization is desired, our patients should be presented with the data of ovarian cancer risk-reduction strategies and be allowed to make an informed decision.

A theoretical cohort demonstrating a possible increase in perioperative complications and long-term cost does not justify leaving a woman at risk of developing ovarian cancer, particularly given that randomized controlled studies have demonstrated similar complication outcomes when comparing salpingectomy with tubal ligation.⁷ While opportunistic salpingectomy is by no means a perfect prevention strategy, it surely is a better option than deliberating leaving in situ research-proven specimen linked to carcinoma and continued risks of other conditions (ie, ectopic pregnancies).

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➤ Related article, page 106.

As in every procedure, risks and benefits must be weighed at the time of surgery, and when clinically feasible, opportunistic salpingectomy should be our preferred method of sterilization at the time of cesarean delivery. As recommended by SGO and ACOG, salpingectomy during hysterectomy is an appropriate option for patients.^{11,12} It is also an approach that is offered to patients undergoing other pelvic surgeries, including myomectomy and treatment of endometriosis, in whom fertility is no longer desired or fallopian tubes are damaged.^{13,14}

Importantly, this paper brings to the light the need for continued research on risks, benefits, and long-term outcomes of salpingectomy at the time of cesarean section. ■

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