Should we rescue clubbed fallopian tubes? A commentary on "Laparoscopic salpingostomy for two types of hydrosalpinx: a step-by-step video tutorial"

We were impressed to view the video manuscript "Laparoscopic salpingostomy for two types of hydrosalpinx: a step-by-step video tutorial" (1). The investigators describe a detailed surgical approach to salpingostomy of hydrosalpinx.

As the in vitro fertilization (IVF) success rates have improved, the role of salpingostomy to treat tubal disease has waned. Hydrosalpinx negatively impacts IVF outcomes with one study showing a 50% decrease in IVF success rates with hydrosalpinx in place (2). It is well recognized that recurrence of hydrosalpinx after salpingostomy is a significant risk, up to 70% in poor-prognosis patients (3). Given these factors, practice patterns have led to salpingectomy or proximal tubal occlusion before IVF. However, it is important to consider all patients, including those who that may not have access to IVF or have ethical objections to IVF and continue to investigate alternative treatment options.

The investigators outline appropriate counseling to patients considering salpingostomy. Patients should not have a history of ectopic pregnancy or prior tubal surgery. Patients also need to be aware of the increased risk of ectopic pregnancy postoperatively and risk of hydrosalpinx recurrence and be open to salpingectomy if tubal disease is determined to be severe. The investigators include several classification systems that are based primarily on the thickness of the tubal wall and the quality of the tubal mucosa. Outcomes vary significantly on the basis of staging of tubal disease; thus, accurate assessment should be made before proceeding with salpingostomy vs. salpingectomy. The American Society for Reproductive Medicine Committee Opinion recommends laparoscopic neosalpingostomy for the treatment of mild hydrosalpinx in young women with no other significant infertility factors (4).

The video shows two main types of hydrosalpinx: the clubbed and cystic variety. When dealing with the cystic type, the investigators demonstrate the importance of removing the adhesive tubal end from the ovary completely exposing the tubo-ovarian ligament. For both types, they demonstrate the important step of everting the mucosa until healthy endothelial folds are visible, increasing the likelihood of tubal function. Finally, securing the everted edges with both cautery and reinforcing this with sutures ensure continued exposure of the healthy endothelial folds and decrease the risk of hydrosalpinx recurrence.

The investigators suggest follow-up hysterosalpinogram at 2 months postoperatively to promptly identify reocclusion. Both patients undergoing the outlined surgical techniques were noted to have patent tubes on hysterosalpingography. Early identification of recurrent hydrosalpinx helps to avoid delays in treatment, such as a return to the operating room for salpingectomy followed by IVF if the patient is amenable.

If distal hydrosalpinx can be reliably treated, should we rescue clubbed fallopian tubes? Even in patients with the best prognosis, the cumulative pregnancy rates and time to pregnancy are inferior to salpingectomy and IVF. A study reviewing 434 historical cases found the 5-year cumulative delivery rate with stage I tubal disease to be 53%, which is similar to live birth rates for one IVF cycle in good-prognosis patients (5). Half of these pregnancies occurred in the first 14 months after surgery. Regardless of the stage of tubal disease, the risk of ectopic pregnancy was approximately 10%. When counseled, many patients will not find this delay in time to pregnancy acceptable. Moreover, these results require an experienced reproductive surgeon. Because decreasing number of salpingostomy procedures are performed, the number of surgeons with adequate experience will continue to decline. Referring appropriate patients to capable surgeons practiced at salpingostomy will keep this as a viable option.

The video manuscript "Laparoscopic salpingostomy for two types of hydrosalpinx: a step-by-step video tutorial" offers valuable insight into patient selection and surgical techniques. Clearly, patient selection and patient counseling are paramount to proceeding with salpingostomy. Thorough discussions with patients about their treatment goals are required by providers. Ultimately, informed shared decision-making will be the only way to determine whether a clubbed tube should be rescued.

CRediT Authorship Contribution Statement

Madeline G. Kroeger: Writing – original draft, Writing – review & editing. **Jessica D. Kresowik:** Writing – original draft, Writing – review & editing.

Declaration of Interests

M.G.K. has nothing to disclose. J.D.K. has nothing to disclose.

Madeline G. Kroeger, M.D.[a]
Jessica D. Kresowik, M.D.[b]

[a] Department of Obstetrics and Gynecology, Carle Foundation Hospital, Urbana, Illinois; [b] Department of Obstetrics and Gynecology, University of Iowa Carver College of Medicine, Iowa City, Iowa

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