J Gynecol Oncol. 2019 May;30(3):e73
https://doi.org/10.3802/jgo.2019.30.e73
pISSN 2005-0380·eISSN 2005-0399

JOURNAL OF GYNECOLOGIC ONCOLOGY

Editorial

Improving pregnancy outcomes in fertility preserved cervical cancer patients: big challenge after radical trachelectomy

Jin Li [1,2]

[1]Department of Gynaecologic Oncology, Fudan University Shanghai Cancer Centre, Shanghai, China
[2]Department of Oncology, Shanghai Medical College, Fudan University, Shanghai, China

▸ See the article "Reproductive counseling and pregnancy outcomes after radical trachelectomy for early stage cervical cancer" in volume 30, e45.

Received: Feb 27, 2019
Accepted: Feb 27, 2019

Correspondence to
Jin Li
Department of Gynecologic Oncology, Fudan University Shanghai Cancer Center, 270 Dongan Road, Shanghai 200032, China.
E-mail: dr.jinli@yahoo.com

ORCID iDs
Jin Li
https://orcid.org/0000-0001-8526-4395

Conflict of Interest
No potential conflict of interest relevant to this article was reported.

Young patients with early stage cervical cancer often have a strong desire to preserve fertility. Radical trachelectomy (RT) is a viable option for such patients and definitely the "Cornerstone" of fertility-sparing surgery. This novel surgery was initially developed in 1987 by the French surgeon Daniel Dargent. To date, approximately 3,000 cervical cancer patients have been submitted to fertility-sparing surgery (FSS). Improving pregnancy outcomes in patients after RT is a big challenge. Lots of factors could influence the obstetric results. A systematic review [1] reported that more than 50% of the patients, who had undergone FSS procedure and wished to become pregnant, achieved at least one pregnancy. Nevertheless, the data varied in different surgical techniques (vaginal, laparotomic, laparoscopic, and robotic). The pregnancy rates reported in patients submitted to a laparotomic RT varied from 20%–44% [1-4], which were significantly lower compared with other approaches (particularly the widely used vaginal RT) [5,6]. Since laparotomic RT was usually conducted in patients with large tumors (>2 cm), the lower fertility rate after a laparotomic RT could be related to more radical resection of the abdominal procedure, or the compromised ovarian function caused by postoperative chemotherapy. In addition to FSS techniques, social familial factors, physical problems, postoperative complications, sexual functions, quality of life, emotional well-being, and obstetrical complications could also greatly affect the obstetric outcomes. Infertility issues following FSS is challenging. The main cause of infertility after RT was related to cervical factors. Resection of the cervix could cause sperm migration difficulty, subclinical endometritis and cervical stenosis. The last one was the most common complication after RT. Fortunately, assisted reproductive technologies became available options for the management of infertility issues. With the help of assisted reproductive technologies, more patients after RT conceived successfully. A remarkable fact is, even when the patients after RT get pregnant successfully, they remain at higher risk of premature rupture of membranes, premature delivery and miscarriage.

Compared with radical hysterectomy, RT is relatively new. The treatment conception evolved with experiences accumulation. Patients and their families sometimes were not well prepared for the treatment they chose to go through. The complicated situations after RT—the possibilities of infertility issues, postoperative complications and obstetrical risks during pregnancy— became the source of stress, anxiety, and frustration. Gynecologic oncologists played a key role in the fertility-sparing treatment for early stage cervical cancer patients.

JOURNAL OF GYNECOLOGIC ONCOLOGY

However, when communicating with patients, they may focus more on cancer treatment than on future fertility issues. A preoperative consultation with a multidisciplinary team involving not only gynecologic oncologists, but also infertility specialists, reproductive endocrinologists, maternal-fetal medicine specialists would help patients be aware of the problems they may encounter after RT, and get rid of the fear and discomfort during the subsequent fertility-sparing treatment.

In this issue of *Journal of Gynecologic Oncology*, Shah et al. [7] evaluated patient perceptions of preoperative reproductive counseling and assessed complications and pregnancy outcomes in women who had RT for early stage cervical cancer. In this study, 39 out of 58 eligible patients completed the survey. 46% of them reported receiving reproductive counseling and 68% reported receiving counseling about pregnancy risks and complications prior to RT. Gynecologic oncologists delivered most of the counseling in this study. 74% of the patients had complications after RT and cervical stenosis was the most common complication, occurring in nearly one third of the patients. The pregnancy rate of the study cohort was 54% and 70% of the pregnancies resulted in live births. The study demonstrated that a significant proportion of patients who underwent RT reported not receiving reproductive or pregnancy risks and complications counseling in the preoperative period.

RT has a short history of three decades. In the past, more attention was paid on cancer treatment and the oncological safety of the novel surgery. As the oncological safety of RT is now widely acknowledged and the number of young patients benefited from the novel surgery grows, improving pregnancy outcomes after RT become more and more important. Given the significant rate of infertility or subfertility issues associated with RT, a preoperative consultation with a multidisciplinary team including infertility specialists, reproductive endocrinologists and maternal-fetal medicine specialists for all patients who are considering RT for treatment of early stage cervical cancer is necessary. To date, there are no specific guidelines or consensus on how to manage fertility related issues in patients after RT. Literatures on this area are also limited. The study reported by Shah et al. [7], is one of the first studies to provide data on the frequency and patient perceptions of preoperative reproductive counseling in patients undergoing RT. More studies on fertility related issues in patients after RT are encouraged and we expect more data to guide clinical practice and eventually improve pregnancy outcomes in young cervical cancer patients who preserved fertility.

REFERENCES

1. Bentivegna E, Maulard A, Pautier P, Chargari C, Gouy S, Morice P. Fertility results and pregnancy outcomes after conservative treatment of cervical cancer: a systematic review of the literature. Fertil Steril 2016;106:1195-1211.e5.
PUBMED | CROSSREF
2. Li J, Li Z, Wang H, Zang R, Zhou Y, Ju X, et al. Radical abdominal trachelectomy for cervical malignancies: surgical, oncological and fertility outcomes in 62 patients. Gynecol Oncol 2011;121:565-70.
PUBMED | CROSSREF
3. Nishio H, Fujii T, Sugiyama J, Kuji N, Tanaka M, Hamatani T, et al. Reproductive and obstetric outcomes after radical abdominal trachelectomy for early-stage cervical cancer in a series of 31 pregnancies. Hum Reprod 2013;28:1793-8.
PUBMED | CROSSREF
4. Kasuga Y, Nishio H, Miyakoshi K, Sato S, Sugiyama J, Matsumoto T, et al. Pregnancy outcomes after abdominal radical trachelectomy for early-stage cervical cancer: a 13-year experience in a single tertiary-care center. Int J Gynecol Cancer 2016;26:163-8.
PUBMED | CROSSREF

https://doi.org/10.3802/jgo.2019.30.e73

5. Hauerberg L, Høgdall C, Loft A, Ottosen C, Bjoern SF, Mosgaard BJ, et al. Vaginal radical trachelectomy for early stage cervical cancer. Results of the Danish National Single Center Strategy. Gynecol Oncol 2015;138:304-10.
PUBMED | CROSSREF
6. Massa LA, Orellana SN, Fredes CM, Astudillo GK, Burztyn MD, Martinez PC, et al. Vaginal radical trachelectomy. A 10 years experience of 3 centers in Chile: IGCS-0076 Cervical Cancer. Int J Gynecol Cancer 2015;25 Suppl 1:28.
PUBMED
7. Shah JS, Jooya ND, Woodard TL, Ramirez PT, Fleming ND, Frumovitz M. Reproductive counseling and pregnancy outcomes after radical trachelectomy for early stage cervical cancer. J Gynecol Oncol 2019;30:e45.
CROSSREF