

Extraperitoneal radical trachelectomy with pelvic lymphadenectomy

Kotaro Shimura, Seiji Mabuchi

Obstetrics and Gynecology,
Osaka University Graduate
School of Medicine, Suita,
Japan

Correspondence to

Dr Seiji Mabuchi, Obstetrics and
Gynecology, Osaka University
Graduate School of Medicine,
Suita 565-0871, Japan;
smabuchi@gyne.med.osaka-u.
ac.jp

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ABSTRACT

Radical trachelectomy combined with pelvic lymphadenectomy has been used to treat patients with early-stage cervical cancer who wish to preserve their fertility. Vaginal, abdominal, laparoscopic, and robotic approaches have been employed during this procedure, but all cause peritoneal damage, which could result in periadnexal adhesion. As periadnexal adhesion can lead to female infertility due to restricted sweeping of the fimbria over the ovary, it is important to minimize peritoneal damage during the fertility-preserving surgery. Aiming to minimize peritoneal damage, we recently developed a new surgical approach. The techniques used are similar to those used for type III radical hysterectomy; however, all procedures are performed via the extraperitoneal approach.

In this video article, we describe a step-by-step technique of this new fertility-preserving surgical procedure. Surgical procedures are as follows: (1) extraperitoneal pelvic lymphadenectomy, (2) excision of the vesicohypogastric fascia and median umbilical ligament, (3) bladder dissection from the peritoneum and identification of uterine cervix, (4) transection of the cardinal ligaments and vesicouterine ligaments, (5) transection of the vagina, (6) excision of the rectovaginal and uterosacral ligaments, (7) transection of the uterine cervix, (8) cervical cerclage

and placement of a Foley catheter, (9) anastomosis of the uterine cervix, (10) suture of the median umbilical ligament and vesicohypogastric fascia. During these procedures, the uterine arteries, inferior hypogastric nerve, and pelvic splanchnic nerve were preserved. The advantages of this new surgical approach are first, peritoneal injuries can be completely avoided as the procedure is performed extraperitoneally, and second, it can be carried out using conventional low-cost instruments. In view of these features, we consider that this technique could be an ideal treatment option for selected women with early-stage cervical cancer. The oncological and reproductive outcomes of this new surgical approach need to be evaluated in future clinical studies.

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Video 1 Extraperitoneal radical trachelectomy.



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