Paracervical and paravaginal tissue dissection in the Okabayashi–Kobayashi radical hysterectomy and nerve-sparing technique

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Accepted 29 October 2020

This video article demonstrates a nerve-sparing Okabayashi–Kobayashi radical hysterectomy used for a 31-year-old woman with 2008 International Federation of Gynecology and Obstetrics (FIGO) stage IB2 (2018 FIGO stage IIC1) cervical cancer. The radicality of radical hysterectomy includes the extent of paracervical and paravaginal tissues and vaginal resection. The Okabayashi method uses the creation of the paravesical and pararectal spaces and resection of both the vesicouterine and vesicovaginal ligaments to enhance surgery radicality. The Kobayashi method is a modified Okabayashi method developed to preserve the pelvic nerves. Proper separation of the tissue plane demarcated by the membranous fascia and accurate knowledge of the pelvic anatomy are critical for the performance of radical hysterectomy.

Concurrent chemoradiotherapy is the treatment of choice for 2018 FIGO stage IB3–IIB tumors in the National Comprehensive Cancer Network Clinical Practice Guidelines. The Okabayashi–Kobayashi method is

commonly used for FIGO stage IB–IIB cervical cancer in Japan.¹ We can treat small stage IB (<2 cm) tumors effectively with less extensive surgery. The Okabayashi–Kobayashi method enables us to perform extensive removal of the paracervical and paravaginal tissues and the vagina in locally advanced cervical cancer. It is generally understood that the Piver classification is currently obsolete because of the lack of clarity of anatomical definition and unnecessary excessive resection of one-half to three-quarters of the vagina. From the specific point of view of radical paravaginal tissue removal using vesicouterine and vesicovaginal ligament resection, the Okabayashi–Kobayashi method seems to correspond to the Piver class IV operation and Querleu–Morrow type C2 operation.^{2,3}

The nerve-sparing technique is combined with radical hysterectomy. Our systematic nerve-sparing procedure is characterized by the selective transection of uterine nerve fibers.⁴ It is my understanding that the vesicovaginal ligament dissection affects

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To cite: Sakuragi N, Kaneuchi M. *Int J Gynecol Cancer* 2021;**31**:145–146.

Video 1 Selective transection of the uterine nerve fibers of the pelvic plexus. (A) Vascular portion of the cardinal ligament lifted upwards after separation from the pelvic nerves, (B) uterine nerve fibers, (C) pelvic plexus, and (D) vesical nerve fibers.

Video article

identifying and preserving the pelvic plexus and its vesical nerve fibers. We use our systematic nerve-sparing method combined with the vesicovaginal ligament dissection bilaterally for stage IB, and unilaterally for stage II tumors if the extracervical extension is one-sided. I wish to present our Okabayashi–Kobayashi radical hysterectomy technique combined with the systematic nerve-sparing method.

Contributors Contributor acknowledgments are included at the end of the video.

Funding The authors have not declared a specific grant for this research from any funding agency in the public, commercial or not-for-profit sectors.

Competing interests None declared.

Patient consent for publication Not required.

Provenance and peer review Not commissioned; externally peer reviewed.

Data availability statement There are no data in this work.

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