International Collaboration of Surgical Training in Gynecologic Oncology Using a Soft Cadaver

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Introduction

Japanese surgical techniques and treatment methods are highly regarded for their precision and originality. By educating overseas medical professionals through cadaveric surgical training (CST), these techniques can be disseminated internationally and contribute to improving the level of medical care in other countries. We had the opportunity to perform CST with young doctors from both Japan and Thailand. The report and its significance of this CST are discussed.

Materials & Methods

Nerve-sparing radical hysterectomy and para-aortic lymphadenectomy were demonstrated in soft cadavers at Cadaveric Surgical Training Center of Faculty of Medicine, Chiang Mai University (CMU), Thailand in November, 2024. The cadavers were cryopreserved and placed at room temperature in the morning of the CST. The dissections were performed in the same techniques and instruments as in the real surgery. Japanese staff doctors participated as operators, one performing laparotomy and the other performing laparoscopic surgery. Japanese residents, fellows and staff of CMU joined as assistants. The operation was broadcasted to the conference room where questions and comments were answered and discussed as the dissection progressed, helping the participants to better understand the process.

Results

Nerve-sparing radical hysterectomy (NSRH): The techniques to identify the hypogastric nerves, bladder branches of autonomic nerves along the lateral aspect of rectovaginal ligament were shown. The key points of NSRH such as mobilization of visceral stump of cardinal ligament before cutting uterosacral ligament was also shown. The original

technique of Okabayashi radical hysterectomy to divide the posterior layer of vesico-uterine ligament and the paracolpium was demonstrated. The degree of preservation of the bladder branches and pelvic plexus was confirmed.
Para-aortic lymphadenectomy: The mesentery was incised, the duodenum was mobilized, and the inferior vena cava was deployed. The right ureter, running right ovarian artery, and left renal vein were identified. The method of developing the surgical field in order to preserve the ureter in space surrounded by the left renal vein and inferior mesenteric artery and vein, and abdominal aorta was shown. The en bloc para-aortic lymph nodes dissection was performed.

Conclusion/Implications

Teaching Japanese surgical techniques abroad using CST has many implications, including improving international medical standards, disseminating Japanese techniques, and deepening cultural exchange. At the same time, it provides an opportunity to broaden the skills and perspectives of Japanese medical professionals themselves. It is important to develop effective educational programs while emphasizing ethical considerations and international collaboration.