

Original Article



Sentinel lymph node mapping with indocyanine green in vaginal cancer

In Ok Lee, Jung-Yun Lee, Sunghoon Kim, Sang Wun Kim, Young Tae Kim, Eun Ji Nam

Department of Obstetrics and Gynecology, Institute of Women's Medical Life Science, Yonsei University College of Medicine, Seoul, Korea

OPEN ACCESS

Received: Dec 25, 2016 **Revised:** Jan 10, 2017 **Accepted:** Jan 22, 2017

Correspondence to

Eun Ji Nam

Department of Obstetrics and Gynecology, Institute of Women's Medical Life Science, Yonsei University College of Medicine, 50-1 Yonsei-ro, Seodaemun-gu, Seoul 03722, Korea. E-mail: nahmej6@yuhs.ac

Copyright © 2017. Asian Society of Gynecologic Oncology, Korean Society of Gynecologic Oncology

This is an Open Access article distributed under the terms of the Creative Commons Attribution Non-Commercial License (https://creativecommons.org/licenses/by-nc/4.0/) which permits unrestricted non-commercial use, distribution, and reproduction in any medium, provided the original work is properly cited.

ORCID

In Ok Lee https://orcid.org/0000-0003-3189-701X Jung-Yun Lee https://orcid.org/0000-0001-7948-1350

ABSTRACT

Objective: Sentinel lymph node (SLN) mapping is being adapted to gynecologic cancer. Higher SLN mapping rates were reported with indocyanine green (ICG) compared to other dyes. The aim of this film is to share our experience of SLN mapping with ICG in vaginal cancer.

Methods: A 40 year-old woman was diagnosed with squamous cell vaginal cancer. About 1.5 cm-sized tumor was located on the posterior vaginal fornix. Preoperatively she was assumed to be stage I vaginal cancer. Beginning of surgery, we performed SLN mapping by ICG injection into 3- and 9-o'clock positions of the vaginal tumor. Concentrated in 1.25 mg/mL, 1 mL of ICG solution was injected into deep stroma and another 1 mL submucosally in both sides. Bilateral SLN identification and lymphadenectomy were done. Afterward, laparoscopic Type C1 Querleu-Morrow radical hysterectomy with vaginectomy was done. A fluorescence endoscope produced by KARL STORZ (Tuttlingen, Germany) was used for ICG detection. **Results:** To our knowledge, this is the first film report performing SLN mapping with ICG in vaginal cancer. The mapping was successful and we were able to recognize SLN of vaginal cancer. SLNs were located in the bilateral obturator fossa. According to the pathologic diagnosis, the mass size was 15 mm and invasion depth was 1 mm. Subvaginal tissue involvement and pelvic wall extension were absent. Resection margin of the vagina was free from carcinoma. No lymph node metastasis was reported including the bilateral SLNs. **Conclusion:** For vaginal cancer, SLN mapping can be applied by injecting ICG into the bilateral sides of the vaginal tumor.

Keywords: Vaginal diseases; Neoplasms; Sentinel Lymph Node; Indocyanine Green



Sunghoon Kim https://orcid.org/0000-0002-1645-7473 Sang Wun Kim https://orcid.org/0000-0002-8342-8701 Eun Ji Nam https://orcid.org/0000-0003-0189-3560

Conflict of Interest

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

Author Contributions

Conceptualization: L.I.O., N.E.J.; Data curation: L.I.O.; Formal analysis: L.I.O., N.E.J.; Investigation: L.I.O., N.E.J.; Methodology: L.I.O., N.E.J.; Project administration: L.I.O., N.E.J.; Resources: L.I.O., L.J.Y., K.S., K.S.W., K.Y.T., N.E.J.; Software: L.I.O., N.E.J.; Supervision: N.E.J.; Validation: L.J.Y., K.S., K.S.W., K.Y.T., N.E.J.; Visualization: L.I.O.; Writing - original draft: L.I.O., N.E.J.; Writing - review & editing: L.I.O., L.J.Y., K.S., K.S.W., K.Y.T., N.E.J.

VIDEO CLIP

Sentinel lymph node mapping with indocyanine green in vaginal cancer.



Video can be found with this article online at https://ejgo.org/src/sm/jgo-28-e29-s001.mp4.