

Bull Yamaguchi Med Sch 46(1-2) : 37-39, 1999

A Case Presumed Early Stage of Ovarian Cancer with Tumor Involvement in the Lymphatic Along the Ovarian Vessel

Yasuhiko Nakamura, Hidenobu Ogata, Fumitaka Numa, and Hiroshi Kato

Department of Obstetrics and Gynecology, Yamaguchi University School of Medicine, 1-1-1 Minami-Kogushi, Ube, 755-8505 Japan.

(Received January 25, 1999, revised February 26, 1999)

Abstract We report here a case of stage IIIc right ovarian cancer, who was presumed stage Ia at surgery but was found later to have metastasis at the para-aortic lymph node and tumor involvement in the lymphatic along the right ovarian vessel. The surgical strategy for presumed stage Ia ovarian cancer may include pelvic and para-aortic lymphadenectomy, with the resection of lymphatic tissue along ovarian vessels.

Key words : ovarian cancer, operation, ovarian vessel, lymphadenectomy

Introduction

It is well documented that metastasis to para-aortic nodes is an important sign not only for staging but also for evaluating prognosis¹⁻³). However, a palpation or biopsy of the lymph nodes during operation are not reliable for diagnosis of lymph node metastases. Knapp and Friedman⁴) reported that lymph nodes were not palpable at surgery in three of five patients with para-aortic node metastases. Also there are several reports which question the reliability of lymph node sampling^{5,6}). The lymphatics along the ovarian vessels are the major routes for tumor metastasis in ovarian cancer. Therefore, we make pelvic and para-aortic lymphadenectomy and also resect the lymphatic tissue along the ovarian vessels at the surgery for ovarian cancer. We report here a case of stage IIIc ovarian cancer, who was presumed stage Ia at the initial surgery, but was found later to have tumor metastasis at the para-aortic lymph node and tumor involvement in the lymphatic along the ovarian vessel.

Case Report

A 59-year-old multiparous woman admitted to our clinic with a diagnosis of right ovarian tumor. Ultrasonography, CT and MRI indicated multicystic tumor (10cm in diameter) at the right ovary. Serum concentrations of CA125 and CA19-9 were 39 U/ml (cut off, 35 U/ml) and 40.8 U/ml (cut off, 37 U/ml), respectively. At surgery, the tumor capsule was intact and there was no adhesion or ascites in the pelvic cavity. Peritoneal washing was performed first for the cytologic examination, and then the tumor was resected and applied for the pathologic examination of quick frozen sections. Since the pathologic diagnosis indicated malignancy, the patient received total hysterectomy and pelvic and para-aortic lymphadenectomy; and we also resected the ovarian vessels with surrounding lymphatic tissue to the levels close to the vena cava on the right and the renal vein on the left. The final pathologic diagnosis indicated grade 1 endometrioid adenocarcinoma of the right ovary. The capsule of the original tumor was intact and there was no tumor cells

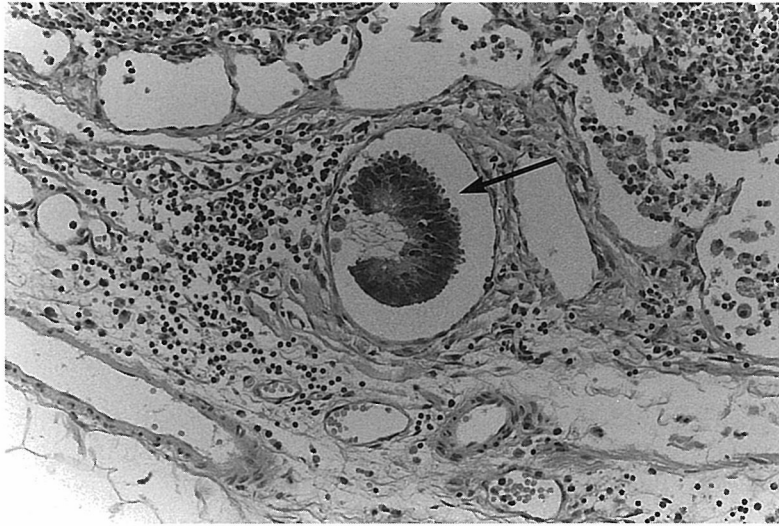


Fig. 1 Histopathologic section of a small metastatic piece (arrow) in a right aortic lymph node. Hematoxylin-Eosin stain. Original magnification $\times 200$.

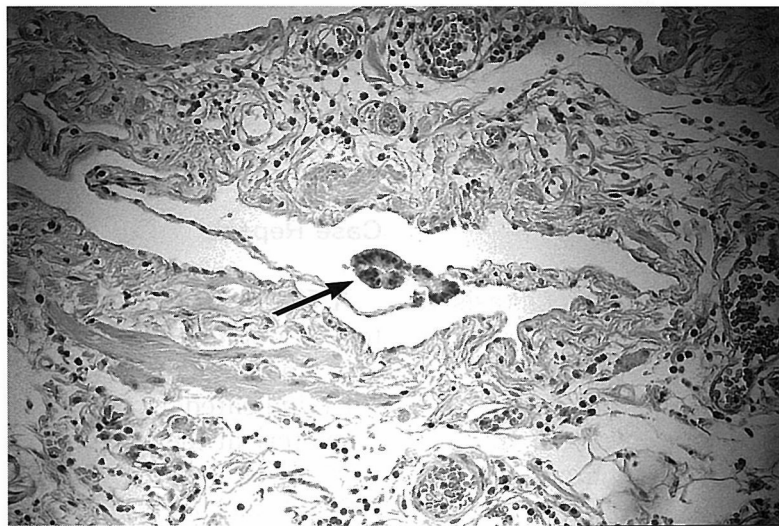


Fig. 2 Histopathologic section of the tumor involvement (arrow) in the lymphatic along the right ovarian vessel. Hematoxylin-Eosin stain. Original magnification $\times 200$.

in the peritoneal washing. However, there were tumor metastasis at the right para-aortic lymph node (Fig. 1) and the tumor involvement in the lymphatic along the right ovarian vessel (Fig. 2). If the present patient did not receive the removal of lymphatic tissue surrounding the ovarian vessels, the cancer cells left in her abdomen. She received five courses of chemotherapy consisted of cisplatin (625mg), adriamycin (250mg) and cyclophosphamide (4,125mg), with a final

diagnosis of stage IIIc ovarian cancer. She remains with no evidence of disease for 25 months after the surgery.

Discussion

Chen and Lee¹⁾ reported that the incidence of positive para-aortic nodes in clinical stage I ovarian cancer was 18.2%. Tsunoda et al⁷⁾ also reported that para-aortic metastasis was detected in three of thirty-six pT1a ovarian

cancer patients (8.3%). Petru et al⁵⁾. recommend not to limit lymphadenectomy to any specific subgroup of ovarian cancer because of the unreliability of operative findings to predict the status of lymph nodes. Carnino et al⁶⁾. reported that lymph node sampling was not reliable to evaluate the retroperitoneal status. We also found tumor metastasis at the para-aortic lymph nodes in three of twenty-one pT1 ovarian cancer (14.3 %), one of six pT1a (16.7 %) and two of fifteen pT1c (13.3 %), and these patients were up-staged to stage IIIc after the final histologic diagnosis (unpublished data; Ogata et al.).

The present study further showed the tumor involvement in the lymphatic along the ovarian vessel in a patient who was presumed to have stage Ia disease at surgery. The treatment of stage Ia ovarian cancer may be individualized further with grade of tumor cells⁷⁾. However, since the lymph node metastasis is one of the crucial factors for selecting the high risk group of ovarian cancer, it may be necessary to perform systematic resection of pelvic and para-aortic lymph nodes and the lymphatic tissue along the ovarian vessels.

References

- 1) Chen SS, Lee L : Incidence of para-aortic and pelvic lymph node metastases in epithelial carcinoma of the ovary. *Gynecol Oncol*, **16** : 95-100, 1983.
- 2) Burghardt E, Pickel H, Lahousen M, Stettner H : Pelvic lymphadenectomy in operative treatment of ovarian cancer. *Am J Obstet Gynecol*, **155** : 315-319, 1986.
- 3) Chen SS : Survival of ovarian carcinoma with or without lymph node metastasis. *Gynecol Oncol*, **27** : 368-372, 1987.
- 4) Knapp RC, Friedman EA: Aortic lymph node metastases in early ovarian cancer. *Am J Obstet Gynecol*, **119** : 1013-1017, 1974.
- 5) Petru E, Lahousen M, Tamussino K, Pickel H, Stranzl H, Stettner H, Winter R : Lymphadenectomy in stage I ovarian cancer. *Am J Obstet Gynecol*, **170** : 656-662, 1994.
- 6) Carnino F, Fuda G, Ciccone G, Iskra L, Guercio E, Dadone D, Conte PF : Significance of lymph node sampling in epithelial carcinoma of the ovary. *Gynecol Oncol*, **65** : 467-472, 1997.
- 7) Tsunoda H, Nishida M, Arisawa Y, Sato T, Oki A, Ichikawa Y, Kubo T : Treatment of stage Ia ovarian cancer. *Acta Obstet Gynecol Jpn*, **46** : 1027-1032, 1994.