42. Endometriosis in para-aortic lymph node resembling a malignancy: a case

report and literature review

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Abstract

Background: Endometriosis is a common benign gynecological disease characterized by

growing-functioning endometrial tissue outside the uterus. Extra-pelvic endometriosis, which

accounts for approximately 12% of endometriosis, is more challenging to diagnose because

of its distance from the pelvic organs. Halban's theory of benign metastasis indicates that

endometrial cells can appear in extra-pelvic organs via lymphatic and blood vessels, but

endometrial lymph node metastasis cases are still rare. We report a case of endometriosis in a

para-aortic lymph node whose clinical behavior mimicked a malignancy.

Case presentation: A 52-year-old perimenopausal woman underwent laparoscopic

hysterectomy plus bilateral salpingectomy (the patient insisted on the preservation of her

ovaries) at a local hospital 2 years earlier because of adenomyosis. The patient presented with

a complaint of low back pain to the gastrointestinal outpatient department of our hospital.

The carbohydrate antigen 125 (CA125) was abnormally elevated at 5280.20 U/ml, human

epididymis 4 (HE4) was 86.0 pmol/L, while other tumor markers were normal. Serum female

hormone results were in the postmenopausal range, and her gastroenteroscopy showed no

abnormalities. Moreover, both enhanced magnetic resonance imaging and positron emission

tomography-computed tomography showed a high possibility of a retroperitoneal malignant

lymph node (metastasis possible, primary site unknown). One week after admission, she

underwent laparoscopic exploratory surgery, during which we observed normal shape and

size of both ovaries while the left ovary was cystic-solid. After opening the retroperitoneal

space, an enlarged lymph node-like tissue measuring 8 Å~ 4 Å~ 3 cm3 was found near the

abdominal aorta. When the surrounding adhesions were separated, lymph node-like tissue

was poorly demarcated from the abdominal aorta and renal artery. Some lymph node samples

and left ovary were sent for intraoperative frozen section, which revealed benign lesions,

similar to endometrial tissue. The lymph node tissue was then excised as much as possible,

and the second set of intraoperative frozen sections showed high probability of endometrial

tissue. The final histopathology and immunohistochemistry staining reached a diagnosis of

para-aortic lymph node endometriosis. Gonadotropin-releasing hormone antigen treatment

was recommended every 28 days because of the high preoperative CA125 and imaging-based

suspicion of malignancy. The serum CA125 subsequently decreased to normal levels, and no

para-aortic lesions were detected on abdominal enhancement CT. She is being followed up

regularly.

Conclusion: It is known that the incidence of lymph node metastasis in pelvic endometriosis

is relatively rare. Our report shows that endometriotic tissue can metastasize via the

lymphatic route and suggests that endometriotic tissue has the characteristics of invasion and

metastasis.

Keywords: Carbohydrate antigen 125; Case report; Endometriosis; Para-aortic lymph node.