Inguinal endometriosis connected to intraperitoneal round ligament: Complete excision with extraperitoneal wide dissection

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Inguinal endometriosis is a rare gynecologic disease. A 43-year-old woman had felt small nodular mass, which causing cyclic groin pain and fluctuation with menstrual cycle. CT scan revealed the extraperitoneal inguinal mass connected to the left round ligament. During the operation, infiltrative fibrotic mass around the inguinal mass could only be excised with wide groin dissection. After dissection of the abdominal muscles, the intraperitoneal mass could be pulled out and excised at the level of the intact round ligament. Histological diagnosis at the excised mass was endometriosis. After the surgery, the pain disappeared completely. We have reviewed published articles concerning inguinal endometriosis. The mechanism of development of inguinal endometriosis seems to be to that of indirect hernia with a difference of disappearing hernia sac resulting from inflammation of endometriosis. About half of the patients revealed periodicity such as cyclic pain or fluctuation of pain with menstrual cycle. We describe the complete surgical excision of extraperitoneal inguinal endometriosis connected to round ligament endometriosis. Successful treatment can be achieved with understanding of the pathophysiology and anatomy related to the inguinal endometriosis.

Key Words: Endometriosis, Round ligament, Groin, Tumor, Surgery

Endometriosis is not a rare disease in active reproductive women.1 Symptomatic triad for pelvic endometriosis is dysmenorrhea, dyspareunia, and infertility. The incidence of extragenital portion of the endometriosis is 8.9% (34/379) and the incidence of inguinal endometriosis is 0.8% (3/379).2 Endometriosis is pathologically benign, but clinically it behaves like malignancy, and such could be
seen in cell invasion, unrestricted growth and metastasis. It has shown malignant transformation also. Therefore the complete surgical excision is essential in the management of the endometriosis. We report a case where the complete surgical excision of extraperitoneal inguinal endometriosis connected to intra-peritoneal round ligament by wide extraperitoneal inguinal dissection.

**Case Report**

A forty-three-year-old woman presented with a left inguinal mass which cause cyclic pain. She had discovered the mass 20 years ago. At the age of 23, she had felt a small nodular mass at her left groin, and the size and hardness of the mass changed with the menstrual cycle. Other triad for pelvic endometriosis such as dysmenorrhea, dyspareunia and infertility was denied. Pathology from ultrasound-guided fine needle aspiration biopsy revealed endometriosis.

On physical examination, a 3 cm sized firm mass covered by normal skin was felt. The mass was not reducible and there was no change with straining, coughing and changes in position. CT scan revealed a 3 cm sized mass at her left groin connected with intraperitoneal round ligament (Fig. 1). CA 125 was slightly elevated up to 57.3 U/mL.

After identifying femoral vessels, the mass which had been infiltrating and directly contacting surrounding soft tissue could be excised completely only with wide surgical dissection. The mass was found to be continuous with the intraperitoneal round ligament at the inguinal canal (Fig. 2). After complete excision of inguinal endometriosis, the pain had disappeared completely. The patient recovered without any postoperative complications. The patients received GnRH agonist for 6 months after operation. No symptoms and signs related to the endometriosis were noticed for over 2 years after the surgical treatment.

**Pathologic Findings**

Histologic study of the excised 3×3 cm mass revealed fibromembranous and fibrofatty tissue with foci...