Letter to Editor

# Intraoperative diagnosis by frozen section study would prevent unnecessary surgery in ovarian Burkitt's lymphoma

Sir,

Ovarian Burkitt's lymphoma is a rare form of malignant ovarian tumors accounting for 1% of all ovarian neoplasms.[1-3] It has been reported as a cause of ovarian torsion.[4] Herein, we briefly report a case of bilateral ovarian Burkitt's lymphoma in a 29-year-old woman presenting with vague suprapubic pain and abdominal distension. On physical examination, a rather large midline pelvic mass with abdominal extension was palpated. Serum beta hCG was negative and serum CA-125 level was within normal limits. Ultrasonography revealed homogenous and slightly echogenic large lobulated masses in both adnexae, each measuring approximately 10 cm in diameter. Pelvic and abdominal computed tomography confirmed the ultrasound findings and also detected enlarged paraaortic lymph nodes. The clinicoradiologic features of the tumor mimicked a primary malignant ovarian epithelial neoplasm despite the normal serum CA-125 level, and the patient became candidate for surgery. At surgery, peritoneal deposits and partial involvement of small intestine were also detected. The patient underwent surgical removal of the ovarian masses, paraaortic lymph node dissection, and peritoneal sampling. Permanent pathology revealed the ovarian masses to be Burkitt's lymphoma with the involvement of paraaortic lymph nodes and peritoneal seedings. The diagnosis was further confirmed by immunohistochemistry showing positive reactivity with leukocyte common antigen (LCA) and CD20 and CD10 markers. Following surgery, the patient underwent chemotherapy for Burkitt's lymphoma. However, an appropriate intraoperative management and diagnosis using tumor sampling and frozen section study would have avoided extensive and unnecessary surgery in this case. In fact, what made us consider extensive surgery was the presence of bilateral ovarian masses with diffuse peritoneal deposits and paraaortic lymphadenopathy, leading to an erroneous impression of primary malignant ovarian tumor originating from the surface epithelium.

The main treatment of ovarian lymphoma is chemotherapy, and the overall prognosis of the tumor is good.[5,6] Spontaneous conception with live birth outcome has been reported following gonadotoxic chemotherapy for bilateral Burkitt's lymphoma.[7] The role of surgery is in question and debatable with the present available chemotherapeutic agents.[1] We do emphasize that, although rare, ovarian lymphoma should be considered in the differential diagnosis of advanced ovarian neoplasms, especially bilateral tumors in young women. Appropriate intraoperative management prevents unnecessary surgery in these cases.

Azar Danesh Shahraki,
[1]Fereshteh Mohammadizadeh, Azam Zafarbakhsh

Departments of Obstetrics and Gynecology, [1]Pathology, School of Medicine, Isfahan University of Medical Sciences, Isfahan, Iran

**Address for correspondence:** Dr. Azar Danesh Shahraki, Department of Obstetrics and Gynecology, School of Medicine, Isfahan University of Medical Sciences, Isfahan, Iran.
E-mail: danesh@med.mui.ac.ir

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| Quick Response Code: | Website: www.advbiores.net |
| | DOI: 10.4103/2277-9175.125859 |