CASE REPORT

Synchronous Occurrence of Endometrial Stromal Nodule with Papillary Serous Carcinoma of Ovary: Report of a Case and Brief Review of Literature

Mitra Sumit · Chatterjee Uttara · Ray Suchandra ·
Mukhopadhyay Debasis · Mukhopadhyay Sanghamitra

Received: 17 February 2011 / Accepted: 12 July 2011 / Published online: 30 August 2013
© Federation of Obstetric & Gynecological Societies of India 2013

Introduction

Synchronous primary malignant neoplasms of the uterus are uncommon. We report a case where a 36-year-old lady diagnosed with ovarian carcinoma underwent hysterectomy after having received three cycles of chemotherapy. Endometrial stromal nodule (ESN), which is the rarest of the three types of endometrial stromal neoplasms [1], was an incidental finding occurring concomitantly with papillary serous carcinoma of ovary. An extensive literature search yielded no previous such report.

Case History

A 36-year-old presented to our Institution with lower abdominal pain. An USG done on 29 June 2010 revealed a complex SOL with both solid and cystic component in right ovary, bulky uterus with ‘fibroid’ and ascites with bilateral Pleural effusion. CA125 level was found to be 4,601 U/ml (normal <35). Ascitic fluid examination

revealed malignant cells. The patient was started on neo-adjuvant chemotherapy with Paclitaxel and Carboplatin on 10/07/10. She had received three cycles of chemotherapy before being operated on 30 Aug. 2010.

On gross examination, the right ovary was larger, measuring 5.5 cm in maximum dimension, compared to the left (maximum dimension 2.5 cm). A well-circumscribed intramural mass, 4 cm in diameter and having a yellow cut section was noted. Microscopically, the right ovary showed features of papillary serous carcinoma with invasive implants in omentum (Fig. 1a). Sections from the intramural mass showed a tumour composed of uniform small cells with dark-staining oval nuclei and scant cytoplasm resembling cells of the endometrial stroma (Fig. 1b). These small oval cells were arranged concentrically around spiral arterioles. There was no cytological atypia and mitotic activity was sparse. Immunohistochemistry with Vimentin and CD10 was positive. The tumour had a well-circumscribed pushing margin from the surrounding myometrium. By keeping all these features in mind, the diagnosis of ESN was made.

Patient is being followed up with CA125 level monitoring and USG studies (done in Dec 10 and Feb 11; next visit is due on Aug 11). CA125 level as on Feb 11 was 14.5. The patient is asymptomatic at present.

Discussion

Endometrial stromal nodule is the rarest of the three types of endometrial stromal neoplasms, viz ESN, low-grade

Mitra S., Assistant Professor · Chatterjee U., Associate Professor · Ray S., Associate Professor · Mukhopadhyay D., Assistant Professor · Mukhopadhyay S., Assistant Professor
Department of Pathology, IPGIMER/SSKM Hospital, Kolkata, India

Mitra S. (✉), Assistant Professor
Flat 5A, 335 Jessore Road, Kolkata 700089, India
e-mail: sumitsumit@rediffmail.com

Fig. 1 **a** Endometrial stromal nodule (H and E, 40×). **b** Omental deposits of the serous adenocarcinoma of the ovary (H and E, 40×)

endometrial stromal sarcoma and high-grade endometrial stromal sarcoma [1]. These endometrial stromal tumours tend to occur in middle-aged women (average age, 45 years) and often present with vaginal bleeding [2]. ESN appear grossly as well-circumscribed lesions having a characteristic yellow colour. They do not invade veins, lymphatics or the myometrium, are positive for CD10 and may express actin or desmin focally. The prognosis is excellent [2]. In our patient, an erroneous diagnosis of fibroid was made earlier on USG. In this regard it might be

mentioned that the constituent cells of an ESN can resemble very closely those of a cellular leiomyoma in that the cells have scanty cytoplasm. However, in contrast to ESN, uterine smooth muscle cells almost always express caldesmon [2].

Cases have been described in literature where ovarian carcinoma coexist with endometrial carcinoma [2–5]. There are also reports regarding collision of endometrioid carcinoma and stromal sarcoma of the uterus, or primary ovarian rhabdomyosarcoma associated with clear cell carcinoma of the ovary [2]. Our present case is unique in the sense that two primary neoplasms were noted at different sites. These double tumours usually present in premenopausal subfertile women with abnormal uterine bleeding. The prognosis in most of the cases is good [4].

Hence to conclude, though Endometrial stromal tumours are rare neoplasms, they can occasionally coexist with another primary tumour of the uterus or ovary. We must be aware of this possibility especially because devising suitable treatment regime for that particular case will always be a challenge.

References

1. Anderson MC, Robboy SJ, Russell P. Endometrial tumors with a stromal component. In: Pathology of the Female reproductive tract. Anderson MC, Robboy SJ, Russell P, editors. 1st edn. Churchill: Livingstone; 2002. p. 361–87.
2. Juan R. Uterine corpus, ovary. In: Rosai and Ackerman's Surgical pathology. 9th edn. Mosby Elsevier: New Delhi; 2004(2). p. 1569–736.
3. Saglam A, Bozdag G, Kuzey GM, et al. Four synchronous female genital malignancies: the ovary, cervix, endometrium and fallopian tube. Arch Gynecol Obstet. 2008;277(6):557–62.
4. Papathanasiou K, Tolikas A, Dovas D, et al. Simultaneously detected primary malignant tumors of ovary and endometrium with unusual histology. Int J Gynecol Cancer. 2005;15(6):1191–4.
5. Grammatoglou X, Skafida E, Glava C, et al. Synchronous endometrioid carcinoma of the uterine corpus and ovary. A case report and review of literature. Eur J Gynaecol Oncol. 2009; 30(4):437–9.