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Synchronous Primary Endometrial and Ovarian Cancers

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Synchronous primary cancers are relatively uncommon in general population. About 0.5-1.7% of women with gynecological malignancies have synchronous primary cancers of the female genital tract [1-5]. Synchronous primary endometrial and ovarian cancers are the most common combination [1,2,4].

The etiology and pathogenesis of synchronous primary cancers of the female genital tract, remains unclear [4,6]. The theory of the "secondary Müllerian system" has been proposed to explain the observation of multiple similar cancers in the female genital tract [6,7]. According to this theory, epithelia of the cervix, uterus, fallopian tubes, ovaries and peritoneal surfaces simultaneously respond to a carcinogenic stimulus [6,7]. Shared hormonal receptors (estrogen receptors) may be responsible for the development of multiple primary malignancies in predisposed tissue [3,4,8].

It is also possible that synchronous presence of these cancers is an indicator of an etiologically distinct condition [9]. Perhaps patients have a more fragile genome and prior genetic damage may predispose to synchronous cancers [9-13]. Thus, embryologic, hormonal or other phenomena may be associated with the development of malignancies arising simultaneously in genital tissues [3,4,6-9,11].

Patients with synchronous primary endometrial and ovarian cancers had distinct clinical characteristics including: young age, obesity, premenopausal status and nulliparity [14]. Usually, they are 10 - 20 years younger than their counterparts with endometrial or ovarian cancer [2,15-17]. The median age at diagnosis is 50 years [1,14,16-19].

The most common presenting symptoms and signs are: abnormal uterine bleeding (46%), abdominal/pelvic pain (17%) and abdominal/pelvic mass (13%) [14,16,19,20].

Synchronous primary endometrial and ovarian cancers may have a similar appearance or may be of different histologic types [4,15,18]. The distinction between metastatic and synchronous primary cancers is relatively easy, when they have different histologic types [21,22]. However, the distinction is relatively difficult when they share the same histologic features [21,22]. For that purpose in clinical practise we use well described empirical criteria [21,22].

For most patients with synchronous primary endometrial and ovarian cancers, systematic surgical staging is the baseline therapy [2,4,16-19,23-25]. Systematic surgical staging includes: total abdominal hysterectomy with bilateral salpingo-oophorectomy, total omentectomy, appendectomy, pelvic and para-aortic lymphadenectomy and complete resection of all disease [2,4,16-18,23-25]. Moreover, systematic surgical staging allows a more clear decision for stage related postoperative adjuvant therapy [24,25].

Especially in advanced stage patients, required a more aggressive management with postoperative adjuvant chemotherapy and/or radiotherapy [4,8,16,17,19,20,23,25,26]. The most active chemotherapeutic agents are: taxanes, anthracyclines and platinum compounds [16,19].

Prognostic factors for synchronous primary endometrial and ovarian cancers are: age, stage of ovarian cancer, grade of endometrial cancer and adjuvant therapy [27]. Patients with synchronous primary endometrial and ovarian cancers endometrioid type have a better overall survival than patients with non-endometrioid or mixed histologic subtypes [14]. Also, patients with synchronous primary endometrial and ovarian cancers have overall 5-year survival 85.9% and 10 year survival 80.3% [18].

The reason for better overall survival of patients with synchronous primary endometrial and ovarian cancers is not intuitively obvious [18]. Usually endometrial cancer produces early symptoms, so synchronous ovarian cancer may be detected at an earlier stage [4,10-13,20,23]. Moreover, favorable prognosis may be related with the detection of patients at early stage and low grade disease with an indolent growth rate [1,4,10-12-20-23].

References

1. Ayhan A, Yalçin OT, Tuncer ZS, Gürgan T, Küçükali T (1992) Synchronous primary malignancies of the female genital tract. Eur J Obstet Gynecol Reprod Biol 45: 63-66.
2. Tong SY, Lee YS, Park JS, Bae SN, Lee JM, et al. (2008) Clinical analysis of synchronous primary neoplasms of the female reproductive tract. Eur J Obstet Gynecol Reprod Biol 136: 78-82.
3. Deligdisch L, Szulman AE (1975) Multiple and multifocal carcinomas in female genital organs and breast. Gynecol Oncol 3: 181-190.
4. Eisner RF, Nieberg RK, Berek JS (1989) Synchronous primary neoplasms of the female reproductive tract. Gynecol Oncol 33: 335-339.
5. Matlock DL, Salem FA, Charles EH, Savage EW (1982) Synchronous multiple primary neoplasms of the upper female genital tract. Gynecol Oncol 13: 271-277.
6. Woodruff JD, Solomon D, Sullivant H (1985) Multifocal disease in the upper genital canal. Obstet Gynecol 65: 695-698.
7. Lauchlan SC (1972) The secondary Müllerian system. Obstet Gynecol Surv 27: 133-146.
8. Sica V, Nola E, Contieri E, Bova R, Masucci MT, et al. (1984) Estradiol and progesterone receptors in malignant gastrointestinal tumors. Cancer Res 44: 4670-4674.
9. Herrinton LJ, Voigt LF, Weiss NS, Beresford SA, Wingo PA (2001) Risk factors for synchronous primary endometrial and ovarian cancers. Ann Epidemiol 11: 529-533.
10. Terzakis E, Androutsopoulos G, Grigoriadis C, Zygouris D, Derdelis G, et al. (2010) Synchronous primary endometrial and fallopian tube cancers. Eur J Gynaecol Oncol 31: 467-468.
11. Androutsopoulos G, Adonakis G, Tsamantas A, Liosis S, Antonopoulos A, et al. (2008) Synchronous primary cancers in a woman with scleroderma: a case report. Eur J Gynaecol Oncol 29: 548-550.
12. Decavalas G, Adonakis G, Androutsopoulos G, Gkogkos P, Koumoundourou D, et al. (2006) Synchronous primary endometrial and ovarian cancers: a case report. Eur J Gynaecol Oncol 27: 434-436.
13. Grigoriadis C, Androutsopoulos G, Zygouris D, Arnogiannaki N, Terzakis

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E (2012) Synchronous squamous cell carcinoma of the endometrium and endometrioid adenocarcinoma of the ovary. Eur J Gynaecol Oncol 33: 666-668.

14. Soliman PT, Slomovitz BM, Broaddus RR, Sun CC, Oh JC, et al. (2004) Synchronous primary cancers of the endometrium and ovary: a single institution review of 84 cases. Gynecol Oncol 94: 456-462.

15. Pearl ML, Johnston CM, Frank TS, Roberts JA (1993) Synchronous dual primary ovarian and endometrial carcinomas. Int J Gynaecol Obstet 43: 305-312.

16. Liu Y, Li J, Jin H, Lu Y, Lu X (2013) Clinicopathological characteristics of patients with synchronous primary endometrial and ovarian cancers: A review of 43 cases. Oncol Lett 5: 267-270.

17. Signorelli M, Fruscio R, Lissoni AA, Pirovano C, Perego P, et al. (2008) Synchronous early-stage endometrial and ovarian cancer. Int J Gynaecol Obstet 102: 34-38.

18. Zaino R, Whitney C, Brady MF, DeGeest K, Burger RA, et al. (2001) Simultaneously detected endometrial and ovarian carcinomas--a prospective clinicopathologic study of 74 cases: a gynecologic oncology group study. Gynecol Oncol 83: 355-362.

19. Chiang YC, Chen CA, Huang CY, Hsieh CY, Cheng WF (2008) Synchronous primary cancers of the endometrium and ovary. Int J Gynecol Cancer 18: 159-164.

20. Sheu BC, Lin HH, Chen CK, Chao KH, Shun CT, et al. (1995) Synchronous primary carcinomas of the endometrium and ovary. Int J Gynaecol Obstet 51: 141-146.

21. Ulbright TM, Roth LM (1985) Metastatic and independent cancers of the endometrium and ovary: a clinicopathologic study of 34 cases. Hum Pathol 16: 28-34.

22. Scully R, Young R, Clement P (1998) Tumors of the ovary, maldeveloped gonads, fallopian tube, and broad ligament. In: Armed Forces Institute of Pathology/American Registry of Pathology WD, editor. Atlas of Tumor Pathology.

23. Androutsopoulos G, Adonakis G, Tsamandas A, Andonopoulos A, Decavalas G (2011) Systemic Sclerosis and Multiple Cancers of the Female Genital Tract: Prolonged Survival following Current Treatment Strategies. Case Rep Rheumatol 2011: 392068.

24. Androutsopoulos G (2012) Current Treatment Options in Patients with Endometrial Cancer. J Community Med Health Educ 2: e113.

25. Androutsopoulos G, Decavalas G (2013) Management of endometrial cancer. International Journal of Translation & Community Medicine 1: e101.

26. Eifel P, Hendrickson M, Ross J, Ballon S, Martinez A, et al. (1982) Simultaneous presentation of carcinoma involving the ovary and the uterine corpus. Cancer 50: 163-170.

27. Ayhan A, Guvenal T, Coskun F, Basaran M, Salman MC (2003) Survival and prognostic factors in patients with synchronous ovarian and endometrial cancers and endometrial cancers metastatic to the ovaries. Eur J Gynaecol Oncol 24: 171-174.