Endometrial cancer (EC) is the most common malignancy of the female genital tract. It occurs primarily in postmenopausal women. Overall, 2.64% of women develop EC during their lifetime. In patients with EC, the most common presenting symptom is abnormal uterine bleeding.

Based on clinical and pathological features, sporadic EC classified into 2 types. Type I EC, represents the majority of sporadic EC cases (70-80%). It is well differentiated, endometrioid in histology, has less aggressive clinical course and favourable prognosis. Type II EC, represents the minority of sporadic EC cases (10-20%). It is poorly differentiated, usually papillary serous or clear cell in histology, has aggressive clinical course and propensity for early spread and poor prognosis.

Systematic surgical staging is the baseline therapy, for most patients with EC. That therapeutic approach allows a more clear decision for stage related postoperative adjuvant therapy.

In patients with EC, systematic surgical staging includes: total hysterectomy, bilateral salpingo-oophorectomy, pelvic and para-aortic lymphadenectomy and complete resection of all disease. Especially in patients with type II EC, systematic surgical staging requires additional omentectomy, appendectomy and biopsy of any suspected lesion. Pelvic washings are no longer part of FIGO surgical staging system for EC, but may be reported separately.

Appropriate surgical staging provides diagnostic, prognostic and therapeutic benefits for women with EC. It facilitates targeted therapy that maximize survival and minimize the morbidity of over treatment (radiation injury) and the effects of under treatment (recurrent disease, increased mortality).

Pelvic and para-aortic lymphadenectomy is essential for surgical staging in patients with EC. It defines accurately the extent of disease and determines the prognosis of EC patients. It is the only way to identify EC patients with stage IIIc disease. Also, it provides a rationale for the need, type and extent of postoperative adjuvant treatment.

Moreover, pelvic and para-aortic lymphadenectomy have therapeutic benefits for patients with EC. It is associated with improved survival in all patients with type II EC and in patients with advanced stage type I EC. However it has no effect on survival in patients with early stage type I EC.

It seems that pelvic and para-aortic lymphadenectomy can be safely omitted in patients with early stage well differentiated type I EC. However pelvic and para-aortic lymphadenectomy should be performed in all patients with type II EC and in patients with advanced stage type I EC. Also in any case of doubt, lymphadenectomy should be performed rather than abandoned.

The extension of pelvic and para-aortic lymph node dissection is an independent risk factor for postoperative complications. Especially in elderly patients and in patients with relevant comorbidities (obesity, diabetes, coronary artery disease), morbidity must be carefully weighed against any survival advantage.

In most EC patients, systematic surgical staging performed with laparotomy. However in EC patients with early stage disease, systematic surgical staging can be performed with minimally invasive techniques (laparoscopy, robotic-assisted surgery). Minimally invasive surgery associated with smaller incisions, improved outcomes and faster recovery.

Address correspondence to this author at the Department of Obstetrics and Gynecology, University of Patras, Medical School, Rion, Greece; Tel: +306974088092; Fax: ; E-mail: androutsopoulos@upatras.gr

© 2014 Cosmos Scholars Publishing House
visualization, shorter hospital stay, less need for analgesics, quicker recovery and lower risk of complications (blood loss, wound infection, herniation, ileus) [12, 14, 15, 35-38]. Moreover, it offers many advantages especially in overweight and elderly patients [12, 35-39]. Compared with laparotomy, minimally invasive surgery associated with similar overall and disease-free survival [14, 15, 35, 36]. However, there are relatively small differences in recurrence rates [35, 36].

Especially in EC patients with increased risk for recurrence or at advanced stage disease, required a more aggressive management with postoperative adjuvant radiotherapy and/or chemotherapy [2, 11, 15, 30].

Postoperative adjuvant radiotherapy in EC patients includes vaginal brachytherapy and external radiotherapy [15, 40].

Vaginal brachytherapy in EC patients with early stage disease is well tolerated, reduces the risk of local recurrences but has no impact on overall survival [40-43]. Moreover, it is associated with less side effects and better quality of life [40-43]. It is the adjuvant treatment of choice for intermediate risk EC patients (stage IA grade 3 endometrioid type EC, stage IB grade 1-2 endometrioid type EC) [15, 40-42, 44-46].

Especially for intermediate risk EC patients, vaginal brachytherapy is equivalent to external pelvic radiotherapy in achieving local control of disease [15, 40, 41, 44, 45]. Moreover vaginal brachytherapy in those EC patients, have significant advantages in the quality of life [15, 40, 41, 44, 45].

External pelvic radiotherapy in EC patients with early stage disease, reduces the risk of local recurrences but has no impact on overall survival [12, 40-42, 47, 48]. However, it is associated with significant morbidity and reduction in quality of life [41, 47]. It is used only in high-risk EC patients (stage IB grade 3 endometrioid type EC, stage I non-endometrioid type EC) [15, 43-45].

External pelvic radiotherapy in EC patients with advanced stage disease, reduces the risk of local recurrences but has no impact on overall survival [12, 40, 44].

Whole abdomen radiotherapy in EC patients with advanced stage disease has tolerable toxicity and may improve survival [49]. However, it can be used only in patients with completely resected disease [49].

Postoperative adjuvant chemotherapy is the mainstay of treatment for EC patients with advanced stage disease [2, 11, 15, 40, 50, 51]. In those EC patients, the most active chemotherapeutic agents are: taxanes, anthracyclines and platinum compounds [50 52]. Although adjuvant chemotherapy achieve high response rates, it has only modest effect in progression free survival and overall survival [50]. Moreover adjuvant chemotherapy in EC patients with advanced stage disease, is more effective than whole abdomen radiotherapy [30, 53].

The combination of adjuvant chemotherapy and radiotherapy is promising in high-risk EC patients or at advanced stage disease [40, 50, 54]. In those EC patients with completely resected disease, the combination of adjuvant chemotherapy and radiotherapy reduce the risk of relapse or death and increase overall survival [15, 40, 55]. Moreover, the combination of adjuvant chemotherapy and radiotherapy is more effective than adjuvant radiotherapy alone [40, 50, 55].

Recent years, molecular targeted therapies have still shown modest effect in unselected EC patients [50]. They usually target the inhibition of EGFR, VEGFR and PI3K/PTEN/AKT/mTOR signal pathways [56].

Especially the role of ErbB-targeted therapies in EC, should be further investigated in clinical trials [57-64]. Perhaps they are active as adjuvant therapy in well-defined subgroups of type II EC patients with EGFR and ErbB-2 over expression [5, 57, 63, 65]. Moreover additional studies into the molecular pathways of EC development and progression, will increase our knowledge and lead to the discovery of new generation molecules with higher therapeutic efficacy [61].

CONFLICT OF INTEREST

We declare that we have no conflict of interest.

REFERENCES


