THE PROGNOSTIC VALUE OF PRESENCE OF PELVIC AND/OR PARA-AORTIC LYMPH NODE METASTASES IN CERVICAL CANCER PATIENTS; INFLUENCE OF THE NEW FIGO CLASSIFICATION (STAGE IIC)

Kim Van Kols,* 1Renee Ebisch, 2Maaike Van Der Aa, 3Hans Wenzel, 4Juergen Plek, 1Ruud Bekkers, 1Catharina Hospital, Eindhoven, Department of Obstetrics and Gynecology and Catharina Cancer Institute, Eindhoven, Netherlands; 2Radboud University Medical Center, Department of Obstetrics and Gynecology and Catharina Cancer Institute, Nijmegen, Netherlands; 3Netherlands Comprehensive Cancer Organization, Department of Research and Development, Utrecht, Netherlands

Poster rounds with the professors: Group O2

COST-EFFECTIVENESS OF Hysterectomy AT THE TIME OF RISK-REDUCING BILATERAL SALPINGOOOophorectomy FOR PATIENTS WITH BRCA1 MUTATIONS

Shayan Dioum,* 1Ling Chen, 1Allison Godley, 2Alexander Melamed, 1Caryn St Clair, 1June Hou, 1Fady Khoury-Collado, 2Elena Elin, 3Dawn Henschman, 4Jason Wright, 1Columbia University Medical Center, Gynecologic Oncology, New York, USA; 2Massachusetts General Hospital, Gynecologic Oncology, Boston, USA; 3Columbia University Medical Center, Health Policy and Research, New York, USA; 4Columbia University Medical Center, Dept of Med Hematology and Onc, New York, USA

Abstracts

Objectives One of the major changes in the revised 2018 FIGO-staging system is the addition of stage IIC, which includes patients with pelvic and/or para-aortic lymph node metastases. Therefore, we evaluated the prognostic value of positive pelvic and/or para-aortic lymph nodes in patients with cervical cancer.

Methods A nationwide retrospective cohort study was performed by identifying all patients diagnosed with stage IB-IVA between 2005–2018 from the Netherlands Cancer Registry. Data was converted to the FIGO 2018 stage based on the TNM-classification. 5-year and overall survival rates (OS) were estimated with the Kaplan-Meier method.

Results Of the included 6,082 patients, 1,740 patients, had pelvic and/or para-aortic lymph node metastases. For patients with FIGO 2009 stage IB1-IIA1-IIA1 with pelvic and/or para-aortic lymph node metastases 5-year survival is 77% and OS is 70%, without lymph node metastases survival rates are 92% and 87% (p<0.001). For FIGO 2009 stage IB2-IIA2-IIB, with pelvic and/or para-aortic lymph node metastases 5-year survival is 67% and OS is 62%, without lymph node metastases survival rates are 74% and 65% (p=0.009). FIGO 2009 stage IIIA-IIIB and IVA survival are not significantly influenced by pelvic and/or para-aortic lymph node metastases (p=0.640, p=0.939). Patients with FIGO 2018 stage IIC have a 5-year survival of 65% and OS of 59%.

Conclusions Patients with FIGO 2009 stage IB1-IIA1-IIA1-IIB-IIA2-IIB cervical cancer with positive pelvic and/or para-aortic lymph node metastases have a significant impaired survival compared to patients without metastases. Survival rates of patients with FIGO 2009 stage IIIA-IIIB-IVA are not significantly affected by lymph node metastases.

Objectives More recent data suggests that patients with BRCA1 are at an increased risk of developing uterine serous cancers. This raises the question of whether a hysterectomy should be done at time of rrBSO. We developed a decision model to compare the cost-effectiveness of rrBSO with or without hysterectomy for patients with BRCA1 mutations.

Methods A Markov model was created to simulate the clinical trajectory of a hypothetical cohort of 10,000 women aged 40 years of age with BRCA1 mutations undergoing rrBSO. The initial decision point in the model was whether a hysterectomy was performed at the time of rrBSO. A time horizon of 60 years was used. Postoperative morbidity and mortality were included in the model as well as risk for subsequent hysterectomy and prolapse after hysterectomy. Model probabilities, cost and utility values were derived with assumptions drawn from published literature. The effectiveness was calculated in terms of average quality adjusted life years (QALYs). The primary outcome was incremental cost-effectiveness ratios (ICERs), expressed in 2018 US dollars/QALYs. One way sensitivity analyses were performed to vary the assumptions across a range of plausible values.

Results RrBSO with hysterectomy was the least costly strategy at $13,628, followed by rrBSO alone ($14,630). Hysterectomy at time of rrBSO was cost-effective compared with rrBSO. rrBSO alone was subjected to absolute dominance because it was both more costly and less effective. Multiple one-way sensitivity analyses did not substantially impact the cost-effectiveness.

Conclusions Hysterectomy at time of rrBSO for BRCA1 patients constitutes a cost-effective management strategy.