

SIOG 2017 - Abstract Submission

Track 4: Modern diagnostics & therapeutic areas

Radiotherapy

O29

TOLERABILITY AND OUTCOMES OF RADIATION THERAPY FOR BREAST CANCER IN OLDER WOMEN: A RETROSPECTIVE STUDY IN 817 PATIENTS

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Introduction: Breast cancer (BC) management in older women requires an individual approach and is becoming increasingly topical given the aging population. Postoperative radiation therapy (RT) is a standard treatment of BC after breast-conserving-surgery in most patients but its relative benefit may be counteracted by potential side-effects, especially in elderly.

Objectives: The aim of this study was to assess acute and long-term radiation-induced toxicities and the impact of comorbidities on outcomes in the older women treated by RT for non-metastatic breast cancer.

Methods: Women aged ≥ 70 years at diagnosis, who received exclusive or postoperative RT for primary non-metastatic breast cancer, including carcinoma in situ, between 2003 and 2009 were retrieved from the Institut Curie registry. We calculated the Charlson comorbidity index (CCI) for each patient and collected the cardiovascular risk factors other than age (hypertension, dyslipidemia, smoking status). We analyzed overall survival (OS), progression free survival (PFS) and acute and late toxicities according to the CTCAE (*Common Terminology Criteria for Adverse Events*) v3.0.

Results: A total of 817 patients was included in this study. Median age at diagnosis was 76.6 years [70 – 93.3]. Most patients had HR+ (hormone-receptor positive) HER2- breast cancer (83.9 %). 517 patients (62.7%) had at least one cardiovascular risk factor. With a median follow-up of 6.7 years [0.5 - 13], OS at 5 years was 86.3% CI_{95%}[83.8 - 88.8], and PFS was 84.5% CI_{95%}[81.9 – 87.1]. OS at 5 years was statistically different according to the Charlson index: 90.2% CI_{95%}[87.2 – 93.3] for a CCI of 0, 84.6 % CI_{95%}[80.5 – 88.8] for a CCI of 1, and 78% CI_{95%}[70.5 – 86.2] for a CCI ≥ 2 ($p < 0.001$, log-rank test), respectively. Similar results were found for PFS ($p < 0.001$, log-rank test). 22.6% of patients had no toxicity; of those who experienced toxicity, most was limited to grade I or II. Only five cases (0.6%) of radiation – induced pneumonitis were reported after a median time of 16.4 months (grade I, n = 1; grade II, n = 2). One case (0.1%) of myocardial ischemia was described 14.5 months after RT. Women older than 80 years were less likely to have acute dermatitis (OR = 0.62; CI_{95%}[0.45 - 0.85]), long-term breast pain (OR = 0.31; CI_{95%}[0.14 - 0.62]), and long-term breast deformation (OR = 0.63; CI_{95%}[0.42 - 0.93]) compared to patients younger than 80 years. There was no significant association found between other cardiovascular risk factors and toxicities.

Conclusion: Radiation therapy for breast cancer in the older women is well-tolerated. An extended follow-up is planned in order to assess toxicities at a longer time horizon. Further studies could be envisaged to assess the quality-of-life during and after RT for breast cancer in the older patient population.

Disclosure of Interest: None Declared

Keywords: Breast cancer , Older women, Radiotherapy