356 Poster discussion

Persistent Pain, Sensory Disturbances and Functional Impairment After Adjuvant Chemotherapy for Breast Cancer − Cyclophosphamide, Epirubicin and Fluoruracil Compared with Docetaxel + Epirubicin and Cyclophosphamide

K. Geving Andersen[1], M.B. Jensen[2], H. Kehlet[1], R. Gärtner[3], L. Eckhoff[4], N. Kroman[3]. *[1]Rigshospitalet University of Copenhagen, Section for Surgical Pathophysiology, Copenhagen, Denmark; [2]Danish Breast Cancer Cooperative Group, Copenhagen, Denmark; [3]Rigshospitalet University of Copenhagen, Department of Breast Surgery, Copenhagen, Denmark; [4]Odense University Hospital University of Southern Denmark, Department of Oncology, Odense, Denmark*

Background: Persistent pain after breast cancer treatment (PPBCT) is a considerable clinical problem affecting between 25−60% of breast cancer survivors [1]. Several risk factors have been proposed, among them nerve damage on basis of surgery and radiotherapy [2]. Taxanes used in adjuvant therapy for breast cancer are neurotoxic, and thereby being a potential risk factor for PPBCT and sensory disturbances. The long term influence of taxanes on PPBCT is not well documented. The purpose of this study was therefore to compare a nationwide cohort treated with cyclophosphamide and epirubicin + docetaxel (CE+T) with a nationwide cohort treated with cyclophosphamide, epirubicin and fluoruracil (CEF), in order to assess differences in reporting of PPBCT, sensory disturbances in surgical area, symmetric peripheral sensory disturbances and functional impairment.

Methods: A comparative nationwide cross-sectional questionnaire study on two cohorts treated with CEF respectively CE+T, based on the Danish Breast Cancer Cooperative Groups database. Inclusion criteria: women treated with chemotherapy as adjuvant treatment for primary breast cancer, age 18−69 years, without recurrence. Exclusion criteria: bilateral or previous breast surgery, including reconstructive surgery. The same questionnaire [1] was used for both cohorts and contained detailed questions regarding pain intensity and frequency and sensory disturbances in the breast area, side of chest, axilla and arm, bilateral sensory disturbances in the hands and feet, and questions regarding daily activities.

Results: 1241 patients treated with CEF in 2005–2006 and 1652 patients treated with CE+T in 2007–2008 were included. 664 (54%) with CEF and 861 (53%) patients with CE+T reported pain. In the multivariate analysis including available risk factors, CE+T did not increase risk of PPBCT, adjusted OR 0.95 (95% CI 0.81–1.11), P = 0.52, compared to CEF. Patients treated with CE+T had a lower risk of sensory disturbances in the area of surgery compared with CEF, adjusted OR 0.75 (95% CI 0.62–0.90), P = 0.002. More CE+T patients reported peripheral sensory disturbances in the hands, adjusted OR 1.56 (95% CI 1.27–1.92), P < 0.0001, and in the feet, adjusted OR 2.0 (95% CI 1.66–2.42) P < 0.0001, compared to CEF. There was no difference in functional impairment ($p = 0.62$).

Conclusion: Docetaxcel as adjuvant treatment for breast cancer does not increase the risk of PPBCT, sensory disturbances in the surgical area or functional impairment, but increase the risk for peripheral sensory disturbances.

References

[1] Gartner R, Jensen MB, Nielsen J, Ewertz M, Kroman N, Kehlet H. Prevalence of and factors associated with persistent pain following breast cancer surgery. *JAMA* 2009;302(18):1985−92.

[2] Andersen KG, Kehlet H. Persistent pain after breast cancer treatment: a critical review of risk factors and strategies for prevention. *J Pain* 2011 12(7):725−46.

357 Poster discussion

Impact of Survivorship Care Plans (SCP) On Adherence to Guidelines, Health Service Measures, and Patient-reported Outcomes (PRO): Extended Results of a Multicenter Randomized Clinical Trial (RCT) with Breast Cancer Survivors

E. Grunfeld[1], G. Pond[2], E. Maunsell[3], M.N. Levine[2], J.A. Julian[2], D. Coyle[4]. *[1]University of Toronto, Ontario Institute for Cancer Research, Toronto, Canada; [2]McMaster University, Ontario Clinical Oncology Group, Hamilton, Canada; [3]Universite Laval, Unite de recherche en sante des populations, Quebec, Canada; [4]University of Ottawa, Ottawa Health Research Institute, Ottawa, Canada*

Background: SCPs are recommended for patients who have completed primary treatment and are transitioning to routine follow-up care. We previously reported the main results of a multicentre RCT to evaluate SCPs for breast cancer survivors transitioning to routine follow-up with their own primary care physician (PCP). [1] The results do not support the hypothesis that SCPs are beneficial for improving PROs to 12 months post-randomization. Here we report the impact of SCPs on adherence to follow-up guidelines, other health service measures, and PROs to 24 months.

Methods: 408 early stage breast cancer patients were enrolled through tertiary care cancer centres throughout Canada. All patients were transferred to their own PCP for follow-up. The 208 control patients received a discharge visit with their oncologist and their PCP received a discharge letter, according to usual practice. The 200 intervention patients received an SCP and a 30-minute educational session with a nurse. PCPs of intervention patients received a copy of all documents, a published guideline on follow-up care, and a reminder table of recommended visits and tests. Adherence to the follow-up guideline, measured by an adherence score (manoeuvres recommended minus manoeuvres not recommended, possible range −6 to 5), reasons for post-transfer cancer centre visits, and PROs were measured at 24 months (range: 18 to 27 months) post-randomization.

Results: 173 control (83%) and 164 intervention (82%) patients completed the 24 month assessment. Median adherence score was 3 for patients in both groups (p = 0.44). 59% of control and 66% of intervention patients had two or more clinical examinations (p = 0.18), and 85% of control and 89% of intervention patients (p = 0.42) had one or more breast imaging manoeuvres. Most patients (62% control, 67% intervention, p = 0.49) had at least one manoeuvre that was not recommended. Seven (3.4%) control and 4 (2.1%) intervention patients had a post-transfer cancer centre visit for follow-up. 92% of both control and intervention patients correctly identified their PCP as primarily responsible for follow-up. There were no differences between groups on the change from baseline for any PRO summary measures.

Conclusions: Adherence to recommended breast imaging was high in both groups. Few patients returned to the cancer centre for routine follow-up care. Most patients correctly identified their PCP as primarily responsible for follow-up. At 24 months there were no differences between groups on any of the outcomes measured.

References

[1] Grunfeld E et al. Evaluating survivorship care plans: results of a randomized clinical trial of patients with breast cancer. J Clin Oncol 2011 *In Press*.

358 Poster discussion

Psychological Distress in a Population with BRCA1 or BRCA2 Mutation

S. Costa[1], R. Guimaraes[1], L. Garrido[2], F. Osorio[2], A. Magalhaes[2], R. Grangeia[1], R. Coelho[1], S. Castedo[3], J.L. Fougo[2]. *[1]Hospital de Sao Joao, Psiquiatria, Porto, Portugal; [2]Hospital de Sao Joao, Cirurgia, Porto, Portugal; [3]Hospital de Sao Joao, Genetica, Porto, Portugal*

Background: People who inherit a BRCA 1 or BRCA 2 mutation are at increased risk of developing breast and/or ovarian cancer. In addition, for each of their offspring (male or female) there is a 50% chance they will inherit the mutated copy of the gene. Such information may have a negative impact in the mental health and well-being of the carriers. The aim of this study is to characterize a cohort of BRCA mutation-carriers treated and followed at a Breast Cancer Center and measure the psychological distress caused by the confirmation of the pathogenic mutation.

Methods: A group of women and men with a proven BRCA 1 or BRCA 2 mutation were invited to complete a specific sociodemographic protocol and two psychological evaluation scales: HADS (Hospital Anxiety and Depression scale) and IES (Impact Event Scale). Both these scales are validated for the studied population. Data concerning this cohort was retrospectively analyzed. An informed written consent was obtained from all participants. All data were analyzed using SPSS version 18.0.

Results: Since the inception of the cancer genetics programme in our Breast Center, a total of 52 women and 15 men (N = 67) have been shown to carry a BRCA mutation, with a median age 44 (20−79). Among the 67 carriers, 30 (45%) have been affected with breast cancer: median age at diagnosis 43 (26−75); 29 cases of invasive carcinoma, 5 triple-negative; 5 patients underwent neo-adjuvant treatment and 22 received adjuvant chemotherapy. 2 carriers (3%) were elected to have risk reducing salpingo-oophorectomy, 4 (6%) underwent bilateral prophylactic mastectomy and 9 (13%) underwent both surgeries. 4 affected carriers are dead (6%). More than 50% of the population did not appear to have anxiety or depressive symptoms associated to their carrier status.

Conclusion: In our study, breast cancer was not diagnosed in early stages, probably due to the fact that mutation was only confirmed after the diagnosis of cancer. This highlights the importance of identifying those individuals most likely to carry pathogenic mutations, the importance of a multidisciplinary team specialized in the management of this population with pre and post-test counseling, psychological support, development of adequate coping strategies improving treatment adhesion and reducing the distress levels.