Trials, The ASCO recommendations about SNB, The Canadian SN FNAC and German SENTINA, The MD Anderson trials, and the ACOGOS G 1071 and AO11202 ALLIANCE (NCTO 1901094)

Results: For patients treated with NAC, patients with advanced stages (T3-4 /N2-3) should receive RT after independent NAC response. In early stages, it would be reasonable to receive treatment if there were residual disease; if doubts exist in cases of pR, such cases should be assessed individually. It seems clear that patients with clinical regional involvement who present affectations of the lymph nodes following NAC will benefit from locoregional RT, but it is less clear in those who are pN0 following the NAC, as their risk of LRR is low.

Conclusion: The benefit of locoregional RT is not clear in patients with pN0 following the NAC. The ongoing NSABPB-51 /RTOG1304 (NRG 9353) study has been designed to answer this question. We must wait for the results of this important trial. Until these results, we must follow the recommendations previously prescribed.

Purpose or Objective: To present the clinical results of ABPI using 3D-CRT and IG-IMRT following breast-conserving surgery (BCS) for early-stage breast cancer.

Material and Methods: Between 2006 and 2014, 104 low risk breast cancer patients were treated with postoperative ABPI given by means of 3D-CRT (n=44) using 5-3 non-coplanar, isocentric wedged fields, or IG-IMRT (n=60) technique using KVCBCT guidance for each fractions. The total dose of ABPI was 36.9 Gy (9 x 4.1 Gy) using twice-a-day fractionation for 5 consecutive days. Survival results, side effects, and cosmetic results were assessed.

Results: At a median follow-up of 48 months (range: 25-112) one (0.9%) local recurrence was observed. Two patients (1.9%) died of internal disease. One (0.9%) contralateral local recurrence was observed. Two patients (2.8%) secondary tumors were observed. Neither regional nor distant failure was detected. Acute side effects included grade 1 (G1) and G2 erythema in 54 (51.9%) and 2 (1.9%), G1 parenchymal induration in 43 (40.6%) patients was as follows 50% RA arm, 18% S, 8% RT, 24% A. The mean time from the beginning of the treatment to examination was 12.2 years (8-15.9) in S, 11.7 (8-16.9) in A, 10.7 (8-15.3) in RT, 10.1 (8-14.5) in RA. The majority of patients were treated with amputation (74%), the remaining with BCT. In chemotherapy arms 47% were treated with FAC, 31% with CAF, 19% with AC, and 3% with TE. Hormonal treatment was given to 64% of patients, in the majority of them it was Tamoxifen-based. Radiotherapy dose varied between 50 and 70 Gy.

Conclusion: In the current series no unequivocal association between treatment regimen and long-term cardiac dysfunction could be found. Further studies in a well-balanced patient population are needed to elucidate the impact of contemporary anthracycline-based systemic treatment and modern irradiation techniques on cardiac outcome. The research received funding from National Science Center Poland under grant no. N N 402 685640

Purpose or Objective: Radiation and anthracyclines are known to induce cardiac damage. Despite the use of 3D planning the heart is still irradiated with non-negligible doses, therefore this problem needs further investigation. We perform an analysis of cardiac function in the left sided breast cancer survivors. Patients were treated with surgery alone (S), additional radiation (RT), additional anthracycline based chemotherapy (A) or both (RA).

Material and Methods: A total of 140 patients were subjected to cardiological evaluation more than 8 years after primary treatment. We performed ECG and ECHO (in a part of patients we also had an ECG and ECHO performed before surgery), blood tests, chest X-ray. We also collected additional relevant information on patients (history, comorbidities, current treatment, etc.). Distribution of patients was as follows 50% RA arm, 18% S, 8% RT, 24% A. The mean time from the beginning of the treatment to examination was 12.2 years (8-15.9) in S, 11.7 (8-16.9) in A, 10.7 (8-15.3) in RT, 10.1 (8-14.5) in RA. The majority of patients were treated with amputation (74%), the remaining with BCT. In chemotherapy arms 47% were treated with FAC, 31% with CAF, 19% with AC, and 3% with TE. Hormonal treatment was given to 64% of patients, in the majority of them it was Tamoxifen-based. Radiotherapy dose varied between 50 and 70 Gy.

Conclusion: The current series no unequivocal association between treatment regimen and long-term cardiac dysfunction could be found. Further studies in a well-balanced patient population are needed to elucidate the impact of contemporary anthracycline-based systemic treatment and modern irradiation techniques on cardiac outcome. The research received funding from National Science Center Poland under grant no. N N 402 685640.

Purpose or Objective: Incidental radiation dose to the heart and lung during left breast radiation therapy (RT) has been associated with an increased risk of cardiopulmonary morbidity especially in patients treated with antracyclines as neoadjuvant/adjuvant chemotherapy schedules after surgery. We conducted two different dosimetric analyses (by NTCP and Bio-DVH) to determine if left breast RT with the Active Breathing Coordinator (ABC) can reduce heart/left anterior descending artery (LAD) and lung dose without target coverage impairment.

Material and Methods: Patients with stages 0-IIl left breast cancer (LBC) were enrolled and underwent simulation with both free breathing (FB) and ABC for comparison of dosimetry. ABC was used during the patient’s RT course if the heart exposition was > 12%. The prescribed dose was 50 Gy plus a boost in 88% and 2.75 Gy up to 44 Gy plus a boost in 22%. The primary endpoint was the magnitude of