**The role of radiotherapy in combined treatment for locally advanced breast cancer with ipsilateral supraclavicular metastases**

**Background:** Locally advanced breast cancer (LABC) includes a heterogeneous group of breast neoplasms classified from stage IIB, IIIA to IIIB. LABC with ipsilateral supraclavicular adenopathy without evidence of distant disease is included in the stage IV (but regional stage IV). Purpose of this study was to assess the role of radiotherapy (RT) in combined treatment with systemic therapy (chemotherapy and hormonotherapy) in LABC with ipsilateral supraclavicular adenopathy.

**Methods:** In 5-year period 45 patients with LABC and ipsilateral supraclavicular metastases were treated with radiotherapy and chemo- or hormonotherapy depending on the physical condition, age and steroid receptors (ER, PGR) content. Twenty patients received TD 30 Gy in 10 fractions on breast and regional lymph nodes and 25 patients received TD 51 Gy in 15 fractions on the breast and TD 45 Gy in 15 fractions on regional lymph nodes. Twenty-three patients received chemotherapy (CMF or FAC), 10 received hormonotherapy, and 12 received both chemo- and hormonotherapy.

**Results:** After finishing complete treatment the overall response rate was 93.3%. Complete response was 20% and partial response was 73.3%. Locoregional relapse occurred in 5 patients and distant metastases occurred in 10 patients.

**Conclusion:** Treatment of LABC with ipsilateral supraclavicular lymph node involvement should be aggressive, what means combined radiotherapy and systemic chemotherapy and hormonotherapy. Such treatment provides for these patients maximum chance of long-term disease - free and overall survival.

**Clinical efficacy of neoadjuvant FAC chemotherapy in locally advanced breast cancer patients**

**Background:** FAC chemotherapy (CT) regimen is a well-established standard in the neo-adjuvant or primary chemotherapy for locally advanced breast cancer (LABC) treatment. Its main goal is to achieve locoregional tumor shrinkage allowing for the radical surgical treatment with curative intent. Concerning that prognosis of these patients depends on the response to initial neo-adjuvant therapy, we have analyzed clinical response to standard FAC CT in a group of routinely treated unresectable LABC patients.

**Methods:** During the three-year period, 50 pre- and postmenopausal patients without any cardiac risk factors, aged from 38-61 years, were treated with 3 to 4 cycles of neo-adjuvant FAC CT (500-50-500 mg/m²/21d). The initial diagnosis of LABC was based on tumor, nodal and/or skin characteristics: in 25 patients tumor was classified as T3-T4, N2 category was registered in 28 patients, while skin lymphagiosis was found in 22 patients. Pathological diagnosis was confirmed either by skin, tumor and/or lymph node biopsy, or by tumorectomy (in 45 and 5 patients, respectively). Steroid receptor status was determined by biochemical DCC method in 35, or by immunohistochemistry in 7 patients.

**Results:** Axillary lymph node status was evaluable in 47/50, and T status in 48/50 patients. Objective nodal response was achieved in 41/47 patients (93.3%). Complete response was 20% and partial response was 73.3%. Locoregional relapse occurred in 5 patients and distant metastases occurred in 10 patients.

**Conclusion:** Our results confirmed the high response rate to standard neoadjuvant FAC CT in unresectable LABC patients, in whom downstaging was achieved in majority, allowing for radical surgical treatment.