Results: 64 patients (23.7%) experienced a pCR. Univariate logistic regression revealed estrogen receptor (ER) negativity, progesterone receptor (PR) negativity, Human Epidermal Growth Factor receptor 2 (HER2) positivity, high histologic tumor grade, high clinical lymph node stage and non-lobular type as significant predictors for pCR ($p < 0.05$). Age at diagnosis beyond 60 and tumor size had a marginally positive effect; $p = 0.070$ for age and $p = 0.106$ for tumor size. A multivariate analysis taking these variables into consideration showed that ER (odds ratio=0.218, 95% CI 0.111–0.429, $p < 0.001$), HER2 (odds ratio=3.766, 95% CI 1.967–7.209, $p < 0.001$) and the clinical lymph node stage (odds ratio=1.481, 95% CI 1.035–2.119, $p = 0.032$) were the only independent predictors for pCR (see Table).

Conclusions: Our study including 270 consecutive patients diagnosed with large size of locally advanced breast cancer showed that ER, HER2 and the clinical lymph node stage are predictive of pCR.

Table: Multivariate model

Parameters	Estimate	SE	Wald χ^2	Odds ratio	95% CI	p-value
Intercept	−1.5236	0.3742	16.5820			<0.0001
ER	−1.5237	0.3451	19.4950	0.218	0.111–0.429	<0.0001
HER2	1.3260	0.3313	16.0187	3.766	1.967–7.209	<0.0001
Clinical LN stage	0.3928	0.1828	4.6193	1.481	1.035–2.119	0.0316

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Outcome in patients with hormonal receptor positive inflammatory breast cancer substantially improved with adjuvant hormonal therapy

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Background: Inflammatory breast cancer (IBC) is characterized by extensive lymphovascular invasion, nodal involvement and poor clinical outcome. The aim of our study was to evaluate the role of adjuvant hormonal therapy on outcome of hormone receptor positive (HR+) IBC.

Material and Methods: We retrospectively evaluated the outcome of two series of IBC patients treated at the Institute of Oncology Ljubljana, Slovenia, in years 1983−87 (series A) and 2001−05 (series B). Patients without distant metastatic disease were included (59 patients in each of series).

Results: Patients were aged 28−74 (median 54) and 34−83 (median 56) years in series A and B, resp. Axillary lymph nodes were involved in 54/58 and 38/50 pts undergoing induction chemotherapy, mastectomy and axillary dissection (series A and B, resp.). Hormonal receptors were positive in 27/50 (9 unknown) and 31/58 (1 unknown) of pts (series A and B, resp.). HER2 status was determined only in series B (22/52 HER2+, 7 unknown). All pts in series A were treated with CMF chemotherapy, whereas pts in series B were treated with anthracyclines alone (56%), combination of anthracyclines and taxanes (36%) or CMF chemotherapy (7%). In series A 7/27 HR+ pts received adjuvant hormonal therapy (tamoxifen, mean duration 18 months). In series B 28/31 HR+ pts received adjuvant hormonal therapy (mean duration 39 months; 7 received tamoxifen, 12 aromatase inhibitors, 9 switched from tamoxifen to aromatase inhibitors). Adjuvant trastuzumab was applied in 7/22 HER2+ pts. Adjuvant radiation therapy received 73 and 81% of pts (series A and B, resp.). Median relapse-free (RFS) and overall (OS) survival was 16.9 vs. 34.2 months ($p = 0.01$) and 33.8 vs. 56.6 months ($p = 0.06$); series A vs. B, resp. Improved RFS in series B is probably due to more potent chemotherapy (anthracyclines and taxanes vs. CMF), trastuzumab and hormonal therapy. In patients with HR+ IBC RFS was 75.4 vs. 16.5 months (series B vs. A, resp.), probably due to adjuvant hormonal therapy. In series B median RFS in HR+ IBC according to type of hormonal therapy was: 25 vs. 34.9 months vs. not reached (tamoxifen vs. aromatase inhibitors vs. switch; $p = 0.015$) and only 15 months in HR− IBC.

Conclusions: Patients with HR+ IBC seems to benefit substantially from adjuvant hormonal therapy. Of them switching strategy (from tamoxifen to aromatase inhibitors) seems to be the most effective. Prospective randomised trials addressing this issue are warranted.

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Endometrial cancer after breast cancer and relationship with tamoxifen

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Background: Breast cancer and endometrial cancer are frequently diagnosed in the same patient. Tamoxifen use in breast cancer patients may increase endometrial cancer incidence. The purpose of the study was to analyze endometrial cancer with breast cancer history characteristics and prognosis, and whether or not the use of tamoxifen influences the prognosis of endometrial cancer.

Materials and Methods: A retrospective study has been conducted in patients with endometrial cancer in a single institution with 3 groups according to breast cancer history: breast cancer history with tamoxifen use; breast cancer history without tamoxifen use, no history of breast cancer. Diagnosis modalities, histologic characteristics, FIGO status, and survivals were studied.

Results: From 1994 to 2004, 401 patients had been referred to Institut Curie for an endometrial cancer and 363 were eligible for the study: 80 (22%) of patients had a previous diagnosis of breast cancer history. Among them, 43 patients had tamoxifen (group 1) and 37 did not (group 2). The median duration of tamoxifen use was 48 months [4–108]. In the group 3 (no history of breast cancer), there were 283 patients.

Systematic pelvic ultrasound diagnosis was more frequent in tamoxifen group (14% vs 5 and 4%) $p = 0.02$. Carcinosarcoma histologic type was more frequent in tamoxifen group (11.7% vs 5.4% and 4.2%) $p = 0.1$. Well differentiated tumors were less frequent in tamoxifen group (42.5% vs 55.5% vs 61.7%) $p = 0.08$. No difference was noted in FIGO status. The 5-year OS was poorer in Tamoxifen group than in the 2 other groups (respectively 61.3% vs 73.25 vs 82%); $p = 0.0006$. Prognostic factors for endometrial cancer associated with OS in the multivariate analyzis were age at diagnosis, FIGO status and tamoxifen use (RR = 3.83 [1.68–4.77]; $p < 0.001$). The 5-year Local Relapse Free Survival was poorer in Tamoxifen group 82.55 vs 93.1% vs 95.9% ($p = 0.02$).

Conclusion: In this study, breast cancer history with tamoxifen use appears as a poor pronostic factor in endometrial cancer suggesting a tamoxifen role in endometrial cancer agressivity.

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ASTRRA study: a randomised phase III study for evaluating the role of the addition of ovarian function suppression (OFS) to tamoxifen in young women (<45 years) with hormone-sensitive breast cancer who remain in premenopause or regain menstruation after chemotherapy − a Korean Breast Cancer Study Group (KBCSG) trial

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Background: About 60% of newly diagnosed breast cancer patients are premenopausal in Korea and it is already known that these young women have worse prognosis compared to postmenopausal patients. Tamoxifen resistance may contribute to the poor prognosis in this group, however the clinical role of adding OFS for young women who remain premenopausal or resume menstruation after chemotherapy is still controversial. There are several ongoing trials such as SOFT, TEXT, PERCHE, but in these trials, the menopausal status was assessed only one time after chemotherapy. The ASTRRA study is aimed to answer 2 main questions. One is, if the addition of OFS to an adjuvant chemotherapy plus tamoxifen in young women with ER+ tumour who remain premenopausal will provide benefit and the other is, if the delayed OFS followed the monitoring of the menopausal status until 2 years after an adjuvant chemotherapy will be beneficial in terms of disease-free survival (DFS).