(10.7%) had >90% reduction in tumour size. 6 of the 11 with cPR were HER2 positive, 3 triple negative and 2 luminal type (ER+ve, PR+ve, HER2–ve).

71.4% of ERBB2 tumours (ER–ve HER2+ve), all with trastuzumab included in their chemotherapy regimen, had cPR. This molecular subtype was significantly more likely to achieve cPR than luminal subtype ($p < 0.05$). Oestrogen negative tumours were more likely to respond then oestrogen positive tumours ($p < 0.05$).

Conclusions: This study suggests that Her 2positive, ER–ve high grade ductal tumours are the most chemosensitive. The results support the use of trastuzumab in the neo-adjuvant setting. Data collection is ongoing.

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O-29 CAN ER/PR AND HER2 RECEPTOR STATUS PREDICT COMPLETE PATHOLOGICAL RESPONSE AFTER NEO-ADJUVANT CHEMOTHERAPY IN PATIENTS WITH BREAST CANCER?

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Aim: The complete pathological response (CPR) rate of the breast following neo-adjuvant chemotherapy (NAC) in patients with breast cancer varies from 13% to 29%. The aim of this study was to establish the incidence of CPR in our unit and investigate if CPR could be predicted using oestrogen receptor (ER), progesterone receptor (PR) and human epidermal growth factor receptor 2 (HER2) status.

Method: Patients with breast cancer diagnosed between January 2006 and October 2009 who had NAC followed by surgery were included in the study.

Results: (See Table 1) Altogether 38 patients had NAC followed by surgery. Mean clinical size of the tumour was 72 mm. The commonest chemotherapy regime was Epirubicin-CMF. 8/10 HER2 positive patients received neo-adjuvant trastuzumab. Overall 18% (7/38) of patients achieved CPR of the breast and 16% (6/38) achieved CPR of breast and axilla. The rate of CPR of the breast was highest in triple negative patients (36%) and ER negative patients (32%). Post NAC axillary nodes were negative in 45% of patients ($n = 17$).

Table 1

	ER+	ER–	HER2+	HER2–	ER+HER2+	ER+HER2–	ER– PR-HER2+	ER–PR–HER2–(triple–)
	Total ($n = 38$)		Total ($n = 38$)		Total ($n = 38$)			
Number and % of patients	19 (50%)	19(50%)	10 (26%)	28 (74%)	5 (13%)	14 (37%)	5 (13%)	14 (37%)
Rate of CPR	5%	32%	10%	21%	0	7%	20%	36%

Conclusions: Complete pathological response of the breast was seen in 18% of patients. ER, PR and HER2 receptor expression appears to be relevant when predicting CPR, with triple negative tumours having the highest chance of CPR (36%).

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O-30 BASAL-LIKE PHENOTYPE IS A PROGNOSTIC MARKER OF LOCALLY ADVANCED BREAST CANCER BUT NOT A PREDICTIVE MARKER OF RESPONSE TO NEOADJUVANT ANTHRACYCLINE CHEMOTHERAPY

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The basal-like breast cancer is associated with aggressive behaviour and poor prognosis. In this study we examined the impact of two different definitions of basal phenotype (BP) on its prognostic significance in locally advanced primary breast cancer (LAPC) treated by neoadjuvant anthracycline combination chemotherapy.

Method: This study included 120 patients diagnosed with LAPC from 1999 to 2007 at Nottingham University Hospital. IHC was used for evaluation of a number of markers including ER, PR, HER2, EGFR, and CK5/6, and CK14. BP was defined in 2 ways as either any positive expression of CK5/6 and/or CK14 or double negative expression for ER and HER2 plus positive expression for CK5/6 and/or EGFR. BP and triple negative (TN) status were correlated with pCR, PFS and OS.

Result: BP was positive in 46.3% and 24.8% of the cases according to the 1st and 2nd definitions. Twenty-nine percent of the patients were TN. Median follow-up was 62 months. Both definition did not correlate with pCR to chemotherapy while TN correlated with pCR ($p = 0.004$). RFS and OS were not significantly different when the 1st definition of BP was used but were significant with the 2nd definition ($p = 0.016$ and <0.001). TN patients had poor RFS and OS but it was only significant for OS ($p = 0.007$).

Conclusion: BP in this patient population is an important prognostic but not predictive marker of pCR to anthracycline neoadjuvant chemotherapy.

The predictive and prognostic value of TN and BP are different, further studies to clarify the clinical utilities in LAPC are necessary.

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