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Session A. Breast cancer

A22 Neoadjuvant Chemotherapy (NC) with or without Anthracyclines in different Invasive Breast Cancer (IBC) subtypes: outcomes according to pathological complete response (pCR) and proliferation index (PI) of residual tumor (RT)

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Background: The outcomes of IBC pts who received NC could be different by Subtypes.

Methods: We retrospectively reviewed the clinical records of 228 pts treated with NC for stage II-III IBC from 2000 to 2014. For each pt we recorded baseline tumor size, type of NC, type of surgery (S), pathological response (pCR defined as the absence of invasive cells in the breast and the lymph nodes regardless of DCIS). IHC subtypes were defined according to ER and PgR expression, Ki-67 level, and HER2 status: Luminal A (LA): ER and PR + ,HER2-ve and Ki67< 20%(4.8%) Luminal B (LB): ER and/or PR + ,HER2-ve and Ki67 = 20%(27.2%) Luminal HER2 (LHER2): ER and/or PR + ,HER2+ and any Ki67(25.4%) HER2 positive (HER2+): neg ER and PR, HER2+ and any Ki67(11.4%) TN: ER-and PR-ve, HER2-ve and any Ki67(17.5%) Unknown in 33 cases(13.6%) pCR and OS outcomes also on the basis of both pre- and post- NC Ki67 levels were assessed

Results: Median age was 50 yrs (r. 25-75). The NC consisted of an anthracyclines (A)? taxanes (T) in all HER2- (151 pts), associated with weekly carboplatin (C) in a few cases (9) of TN and of T + trastuzumab (H) ± A (32) or C (36 pts) in HER2+ disease. Only 8 pts did not receive S: 5 for distant progression disease (PD) and 3 because still on NC. Quadrantectomy was performed in 127 pts (56%) pCR was achieved in 52 pts (23%) with further 4 pts showing a RT =1 mm

Table: A22 Relationship between pCR and Sub, ki67 and PD

	LA (%)	LB (%)	LHER2 (%)	HER2 +	TN (%)	Median Ki67	PD (%)
pCR	0	8.2	31.0	52.0	36.4	47.4	5.8
No pCR	100	91.8	69.0	48.0	63.6	38.1	34.3
p Value	<0.0001					< 0.0001	<0.0001

All but 21 HER2+ pts (89) received H obtaining pCR in 39.7% of cases regardless chemotherapy type (A-based 35.5% vs C- 43.7%). Seven of 9 pts receiving C addition underwent S with pCR in all but 2 cases. The median Fup was 52 ms (r.1-182 ms). The 5y-RFS and OS were higher in whom achieved pCR than those did no (RFS 93.8 vs 67.8%;p = 0.001 and OS 95.8 vs 76.0%;p = 0.007). Median Ki67 in pretreated core biopsy was 40 compared to 30% in post-NC RT. Pts with high (>30%) post-NC PI showed significantly higher risk for relapse (5y-RFS 49.3%;p = 0.001) and death (5yOS 56.4%;p = 0.007) compared with pts with <15% (RFS 93.6 and OS 89.6%) or >15-30 Ki67 levels (RFS 73.0 and OS 82.6%) .

Conclusions: The pCR rate was significantly higher in aggressive subtypes HER2+ and TN than luminals. Pts achieving pCR showed better RFS and OS compared to no pCR pts. Interestingly high pre-NC PI seems to predict the possibility obtaing pCR, while post-NC PI seem to be of prognostic value in pts who do not receive pCR.