216P; Prognostic Role of Ki67 Cutoff & mPEPI Score for Neoadjuvant 'Chemotherapy' in Locally Advanced HER2 Negative 'Luminal' Breast Cancer

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Background

Neoadjuvant hormone therapy is effective in in locally advanced Her2(-) luminal breast cancer (LA HnLBC). Role of neoadjuvant chemotherapy (NAC) & *mPEPI score after NAC* is unclear in LA HnLBC. We evaluated prognostic & predictive factors for NAC in LA HnLBC retrospectively.

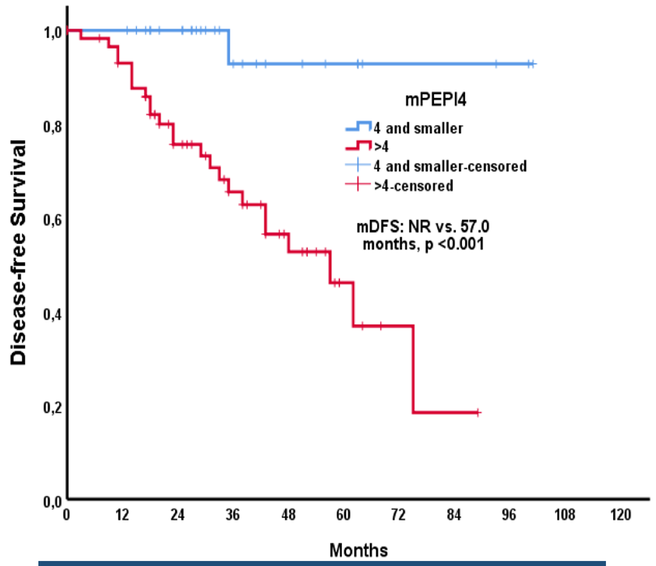
Methods

All patients (pts) had doxorubicin +/- taxane as NAC. They were grouped for pathologic response rate (A: pCR, n:26 & B: non pCR , n:116) & categorized for PR, ki67, ki67 decline & mPEPI score. Ki67 cutoffs were taken as 20 (by literature) & median values in our study.

		DFS		OS	
		HR (95% CI)	p	HR (95% CI)	p
Model 1					
Ki 67 %					
	<40	1.00	0.016	1.00	0.039
	≥40	3.256 (1.244-8.521)		3.394 (1.062-10.846)	
Ki 67 po %					
	<20	1.00	0.004	1.00	0.025
	≥20	8.312 (1.941-35.585)		10.110 (1.329-76.919)	
Ki 67 decline %					
	≥30	1.00	0.731	1.00	0.752
	<30	0.783 (0.194-3.154)		1.303 (0.252-6.745)	
mPEPI score					
	≤4	1.00	0.175	NA	NA
	>4	4.879 (0.495-48.123)		NA	
Model 2					
Ki 67 %					
	<40	1.00	0.005	1.00	0.006
	≥40	3.967 (1.518-10.368)		5.445 (1.612-18.390)	
Ki 67 po %					
	<40	1.00	0.105	1.00	0.772
	≥40	2.159 (0.851-5.480)		1.213 (0.327-4.501)	
Ki 67 decline %					
	≥30	1.00	0.901	1.00	0.022
	<30	1.090 (0.278-4.278)		4.579 (1.244-16.862)	
mPEPI score					
	≤4	1.00	0.014	NA	NA
	>4	12.541 (1.678-93.706)		NA	

Results

142 LA HnLBC pts were included. Median age was 53 years. 57.7% in A , 54.3% in B were postmenopausal. pCR rate was 18.3%. Median ER/PR/ki67 were 90/40/40 %. Ki67 cutoffs were 20 (by literature) & 40 (median level for both basal & postoperative). Basal features for A & B were similar except T stage & grade (G) (p=0.03, p=0.03). Group A had more T2 (73%), G3 (69%) & B had more T3 (21%), G2(46%) tumors. A had lower mPEPI (3.5 vs 5, p=0.05). 5y-DFS was 69% (93.8% vs 63.4%, p=0.012). 5y-OS was 77% (100% vs 72%, p=0.018). In univariate analysis, high basal / (po) ki67 levels, ki67 decline & mPEPI score were significant poor prognostic factors for DFS (p=0.01, p< 0.001, p=0.017, p<0.001) & OS (p=0.006, p=0.003, p=0.05, p=0.001) in group B. Cox regression analysis by po ki67 cutoffs as 20 (model 1) & 40 (model 2) is shown in table 1. Prognostic cutoffs were determined as 40 for basal ki67 (DFS & OS), 20 for po ki67 (DFS), 4 for mPEPI (DFS) & 30 for ki67 decline (OS).



Conclusions

Favorable prognostic factors were defined as lower basal ki67 level (<40%) & higher ki67 decline rate (<30%) for OS; lower basal ki67 level (<40%), po ki 67 level (<20%) & mPEPI score (≤4) for DFS after NAC in LA HnLBC. Different prognostic cutoffs for basal & po ki67 is striking. mPEPI score may also have role after NAC, as if after neoadjuvant hormone therapy in selected LA HnLBC pts. Prospective clinicals trials are needed in this area