SESS – 2476

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THE ACCURACY OF SENTINEL LYMPH NODE BIOPSY IN **LOCALLY ADVANCED BREAST CANCER**

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SAN ANTONIO BREAST CANCER SYMPOSIUM

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OBJECTIVE

Sentinel lymph node biopsy (SLNB) is the standard procedure for early breast cancer (BC); however, its role in patients with locally advanced tumors (cT4N0) after neoadjuvant hormonal therapy or chemotherapy remains a subject of discussion.

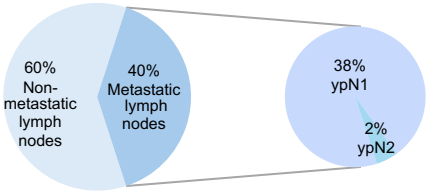
Characteristics	Num. of patients
Total number of patients	50 (100)
Mean age (min-max)	56,5 (30-77)
Histological tumor type: Ductal carcinoma Lobular carcinoma	 42(84%) 8 (16%)
Tumor grade (G): 1 2 3	 4 (8%) 34 (68%) 12 (24%)
Molecular Subtype Luminal A Luminal B (HER2-negative) Luminal B (HER2-positive) HER2-positive Triple-negative	 10 (20%) 28 (56%) 9 (18%) 2 (4%) 1 (2%)
Neoadjuvant therapy Polychemotherapy Hormone therapy	 28 (56%) 22 (44%)

MATERIALS AND METHODS

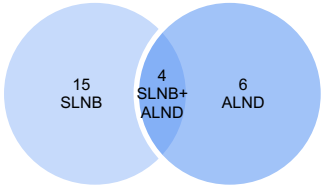
Our single-center prospective cohort study included 50 consecutive patients with cT4N0M0 breast cancer who received neoadjuvant therapy (NAT) followed by mastectomy with SLNB and subsequent level I-II axillary lymph node dissection (ALND). A radioguided method (99mTc-albumin nanocolloid) was used to identify sentinel lymph nodes. The detection rate of sentinel lymph nodes, the false-negative rate (FNR), sensitivity, and negative predictive value were evaluated. Univariate regression analysis was conducted to determine factors affecting the frequency of false-negative results.

RESULTS

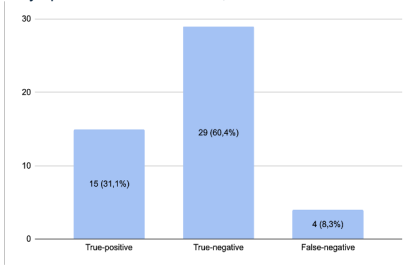
The detection rate was 96% (48/50). The metastasis rate was 40% (20/50). Of these, ypN1 was found in 19 patients (38%) and ypN2 in 1 patient (2%).



Metastatic lymph nodes were detected during SLNB in 15 out of 48 patients (31,3%). After ALND, metastases were detected in 10 out of 48 patients (20,8%).



The false-negative rate (FNR) in the cohort was 8.3%. If 1 or 2 sentinel lymph nodes were removed FNR was 30,8%, if 3 or more lymph nodes were detected, FNR was 0%.



Sensitivity was 82,6%, Specificity 100%, and negative predictive value was 91,5%. Total accuracy was 92,3%.

Sensitivity	Specificity	Detection rate	Negative predictive value	Total accuracy
82,6%,	100%	96%	91,5%	92,3%

The pCR rate was 20%(10/50), and 40 patients (80%)did not achieve a pCR.

In univariate regression analysis only in the number of removed SLN increases the frequency of FNR (p=0,012). Patient's age, BMI, molecular subtype, tumor grade, type of neoadjuvant therapy (chemo/hormonal) didn't affect the accuracy of SLNB.

Factors	False-Negative Rate 4(8,3%)	
	OR (95% CL)	p
Age	1,029 (0,938-1,129)	0,546
G	0,397 (0,068-2,319)	0,305
BMI	1,088 (0,893-1,326)	0,401
Molecular Subtype	0,448 (0,107-1,882)	0,273
Neoadjuvant chemotherapy/hormone therapy	6,833 (0,665-70,235)	0,106
Number of lymph nodes removed during SLNB	0,230 (0,073-0,725)	**0,012**

CONCLUSION

The radioguided SLNB demonstrates acceptable diagnostic accuracy in patients with cT4N0 breast cancer after neoadjuvant therapy, which allows it to be an alternative to ALD, if at least three SLN are removed.

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