

EA-NSM with the conventional method and a large clinical trial with long-term follow-up are needed to accept its safety and complications.

516

Poster

Excision of Breast Cancer Followed by Radiofrequency Ablation of Margins Decrease the Need for a Second Surgery for Close or Positive Margins

I.T. Rubio¹, S. Landolfi², M. Molla³, T. Cortadellas¹, J. Cortes⁴, J. Xercavins¹, S. Klimberg⁵. ¹Vall D'Hebron University Hospital, Breast Surgical Oncology Section, Barcelona, Spain; ²Vall D'Hebron University Hospital, Department of Pathology, Barcelona, Spain; ³Vall D'Hebron University Hospital, Department of Radiation Therapy, Barcelona, Spain; ⁴Vall D'Hebron University Hospital, Department of Medical Oncology, Barcelona, Spain; ⁵University of Arkansas for Medical Sciences, Department of Surgery, Little Rock Arkansas, USA

Background: Excision of breast cancer followed by radiofrequency ablation (e-RFA) is a technique designed to increase the margin in breast conservative surgery (BCS) by heat generated from high frequency alternating currents. The objective of this study is to analyze the impact of the e-RFA in avoiding a second surgery for close or positive margins after BCS.

Material and Methods: From February 2008 to May 2010, 20 patients with a diagnosis of stage I invasive ductal carcinoma of the breast and planned BCS were included in the study after signing an informed consent. After lumpectomy, the RFA probe was deployed in the lumpectomy cavity and heated at 100° during 15 minutes. After the RFA, biopsies from each margin from the radial ablated cavity walls were obtained. The biopsies were sent fresh to Pathology and placed in the Triphenyltetrazolium chloride (TTC) vitality stain for assessment of the ablation zone width and tumor viability. Lumpectomy and sentinel nodes were analyzed by standard pathologic examination. All patients received radiation therapy to the breast as part of the BCS treatment.

Results: e-RFA was successful in 19 patients. Mean age was 66.9 years (range, 46–76 years). The mean pathologic size of tumor was 14.7 mm (range, 4–28 mm). In all patients the devitalized tissue extended beyond the 5–10 mm radial depth of the biopsy sample. Six patients (26%) had margins <2 mm in the final pathology, 4 of them with <1 mm margin. All the 6 patients had the incisional biopsies from the cavity wall with no tumor viability after stained by TTC. The other 13 patients had negative margins although in one patient, a small ductal in situ carcinoma was found at the edge of the cavity biopsy following the coagulative necrosis. She underwent a mastectomy. There were no complications from the RFA. Six patients (25%) developed a lipid cyst in the mammogram at one year after the RFA. At a median follow-up of 28 months (range, 12–43 months), no local recurrences have occurred.

Conclusions: This study supports the feasibility of radiofrequency lumpectomy cavity treatment to extend final negative tissue margins by approximately 1 cm. The e-RFA has spared 25% of patients to undergo a re-excision surgery for close or focally positive margins and in long term it may reduce local recurrences.

517

Poster

Presence of Symptoms and Timing of Surgery Do Not Affect the Prognosis of Patients with Primary Metastatic Breast Cancer

J. Ruiterkamp¹, A.V. Voogd², K. Bosscha³, J.A. Roukema⁴, G.A.P. Nieuwenhuijzen⁵, V.C.G. Tjan-Heijnen⁶, M.F. Ernst³. ¹Máxima Medical Center, Department of Surgery, Veldhoven, The Netherlands; ²Maastricht University Medical Center, Department of Epidemiology, Maastricht, The Netherlands; ³Jeroen Bosch Hospital, Department of Surgery, 's-Hertogenbosch, The Netherlands; ⁴St. Elisabeth Hospital, Department of Surgery, Tilburg, The Netherlands; ⁵Catharina Hospital, Department of Surgery, Eindhoven, The Netherlands; ⁶Maastricht University Medical Center, Department of Medical Oncology, Maastricht, The Netherlands

Background: Though most studies on surgical resection of the breast tumor in patients with primary distant metastatic breast cancer indicated that surgery is associated with prolonged overall survival, some state that this effect has been confounded by indication for an operation and the timing of surgery. In this study we analysed these possible confounders and their relation to overall survival.

Methods: The Eindhoven Cancer Registry of the Comprehensive Cancer Centre South records data on all newly diagnosed patients with cancer in the south of the Netherlands. With these data we already performed a study on 728 patients with primary distant metastatic breast cancer. The current study includes a selection of the patients, derived from four large

teaching hospitals in the south of the Netherlands, resulting in 318 eligible patients diagnosed between 1995 and 2005 for whom extensive analysis was possible.

Results: The median survival in patients treated with surgery of the breast tumor was 39 months, compared to 15 months for those without surgery ($p < 0.0001$). The median survival of patients with symptomatic metastatic disease ($n = 112$) was 19 months, compared to 22 months for those without symptomatic disease ($n = 167$) ($p = 0.15$). Patients who received surgery and whose metastases were detected before surgery of the breast tumor had taken place ($n = 40$) had a median survival of 38 months, compared to 40 months for patients in whom the metastatic disease was diagnosed after surgery ($n = 43$) ($p = 0.81$).

Conclusion: Presence of symptomatic metastatic disease and the timing of surgery were no significant prognostic factors for breast cancer patients with distant metastasis at diagnosis. Therefore, it is unlikely that the prolonged survival after surgery is explained by these two potentials confounders.

Table 1. Characteristics of patients who had surgery before or after the diagnosis of the metastases ($n = 83$)

	Number of patients with surgery		P-value
	Before diagnosis of metastases (n = 43)	After diagnosis of metastases (n = 40)	
Age at diagnosis (years)			0.53
<50	15	10	
50–69	17	16	
≥ 70	11	14	
Median age [range]	54.6 [32.6–88.7]	64.8 [27.1–92.1]	
T-classification			0.0001
T1–2	32	13	
T3–4	5	21	
Unknown	6	6	
Hormone receptor status			0.01
ER and/or PR positive	30	38	
ER and PR negative	11	2	
ER/PR unknown	2	0	
Site of metastases			
Bone	24	30	0.07
Liver	14	6	0.06
Lung/pleural	3	5	0.39
Cutaneous	2	1	0.30
CNS	0	1	0.60
Other/unknown	3	3	0.93
Number of metastatic sites			0.52
1	39	35	
≥2	3	5	
Unknown	1	0	
Symptomatic metastases			<0.0001
Yes	2	16	
No	41	24	
Margin status			0.86
Complete resection	33	28	
Positive margins	7	8	
unknown	3	4	

518

Poster

Sentinel Lymph Node Biopsy in Breast Cancer: the Approach in Day Surgery Under Local Anaesthesia for Quality-of-life and Effective Cost Reduction

F. Ricci¹, L.G. Capuano¹, C. Cosentino², C. De Masi³, M. Dorkin¹, S. Nicodemi¹, A. Pacchiarotti⁴, A. D'Agostini⁵, A. Violante¹, T. Scala⁴. ¹Ospedale S.M. Goretti, Breast Unit, Latina, Italy; ²Ospedale S.M. Goretti, Division of Anaesthesiology and Intensive care, Latina, Italy; ³Ospedale S.M. Goretti, Breast Radiology Unit, Latina, Italy; ⁴Ospedale S.M. Goretti, Lega Italiana per la Lotta contro i Tumori (LILT), Latina, Italy; ⁵Ospedale S.M. Goretti, Division of Nuclear Medicine, Latina, Italy

Background: Sentinel lymph node biopsy (SLNB) is widely used in the management of breast cancer patients without axillary metastases and inflammatory breast cancer.

Purpose of this study is to investigate the approach in day surgery (DS) under local anaesthesia (LA) for quality of life and cost reduction.

Materials and Methods: From Jan. 1st 2006 through Apr. 30th 2011 we performed 265 SLNB at St. M. Goretti Hospital. Mammary carcinoma was diagnosed as malignant by cytology and/or biopsy. Quadrantectomy and SLNB were performed at the same time in cases of positive cytology or biopsy. All patients underwent pre-operative lymphoscintigraphy