5040 POSTER

Excision of primary tumour improves survival in metastatic breast cancer patients

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Background: Metastatic breast cancer (MBC) is an incurable disease, and thus removal of the primary tumour (PT) is not recommended in the routine management. However, several retrospective studies support a benefit of the local control of the PT on survival in patients with MBC. The aim of our study was to assess the impact of local surgery on progression free (PFS) and overall survival (OS) in patients (pts) with MBC at diagnosis.
Material and Methods: A retrospective study was performed between February 1982 and September 2005 in the Hospital Clínico in Valencia. 255 pts diagnosed with MBC at diagnosis were recruited, of whom 132 underwent an attempt of excision of the PT and 123 pts did not received local therapy. Univariate and multivariate analysis of surgery and other prognostic variables was performed in order to avoid potential confounding bias.
Results: Median age was 60 years (25−88). 22.7% were premenopausal and 74.9% postmenopausal. Performance status (PS) was 0 (60%), 1 (18.8%), 2 (15.7%) and 3 (5.4%). Comorbility was assessed with the Charlson scale, scores in the global series were 0 (75.6%), 1 (16.5%), 2 (7.1%), 3 (0.8%).
Histological diagnosis was ductal carcinoma (78%), lobular carcinoma (11.8%), carcinoma non-specified (8.6%) and other (1.6%). 10 pts had an inflammatory breast cancer. Estrogen receptors were +ve in 37.3%, −ve in 29.8% and unknown in 32.9%. Progesterone receptors were +ve in 32.2%, −ve 34.5% and unknown in 33%. Number of metastatic sites were 1 (54.1%), 2 (26.7%) and 3 or more (19.3%).
Surgery of PT was performed in 132 pts, with a radical mastectomy and axillar lymphadenectomy in 108 pts (83%), mastectomy without lymphadenectomy in 12 pts (4.7%) and tumorectomy in 12 (4.7%).
Operated patients were significantly younger, with lower PS score, and less number of metastatic sites. No differences in Charlson scores were found between operated and not operated pts.
Surgery and number of metastasis were identified as prognosis factors for PFS ($p = 0.007$ and $p = 0.047$ respectively) and for OS ($p < 0.001$ and $p = 0.027$ respectively). Significant benefit of surgery was maintained in the multivariant analysis with other potential influenced variables as age, PS and Charlson score.
Conclusions: Surgical removal of PT and number of metastatic sites are independent prognostic factors for PFS and OS in pts with MBC at diagnosis. Local control remains as an important target in the routine management of MBC.

5041 POSTER

Electrochemotherapy as palliative treatment for chest wall recurrence of breast cancer – initial results

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Background: By applying short electric pulses to cells, the cell membranes can become permeabilised (electroporation). This can be used to augment the effect of chemotherapy, by providing direct access to the cell cytosol (electrochemotherapy). For the drug bleomycin, the enhancement of effect is several hundred folds, enabling once-only treatment. This method has proven highly effective in palliative treatment of cutaneous tumors less than 3 cm in diameter but has not yet been investigated for larger tumour areas. The primary aim of this study is to evaluate the efficacy and safety of electrochemotherapy as a palliative treatment for chest wall recurrence of breast cancer where other modalities have failed.
Material and Methods: This is an investigator initiated phase II clinical trial. 28 patients are to be recruited based on Simon's optimal two-stage design for phase II clinical trials. www.clinicaltrials.gov identifier NCT00744653.
Inclusion criteria includes: Chest wall recurrence of breast cancer; lesions totalling over 3 cm in diameter; symptomatic relief is needed; WHO performance status 0−2; written, informed consent.
Treatment Plan: Patients will be treated in general anaesthesia and a standard dose of bleomycin will be given intravenously. Electric pulses will be administered using a square wave electroporator (IGEA, Carpi, Italy). Re-treatment can be administered three times in case there are areas which have not been sufficiently dealt with in the first treatment round. Response assessment using RECIST criteria is done by measurement of lesion extension, digital photography and PET/CT-scans. Safety will be reported both in terms of evaluation of adverse events and in terms of patient satisfaction deemed by Derriford Appearance Scale.
Results: So far 5 patients have been treated in the protocol. Considerable reduction of tumour mass was seen in all five cases and symptomatic relief was achieved especially for two of the three patients who had ulcerating tumours. No serious adverse events have been observed.
Conclusion: Electrochemotherapy seems promising as a palliative treatment for chest wall recurrence of breast cancer.
There has to date not been any report of cancer histologies that are resistant to electrochemotherapy, therefore, the results from this trial on local recurrence of breast cancer are likely to lead to information useful for the treatment of larger tumours from other types of cancer as well.
This is an ongoing study and updated results of the first cohort will be presented.

5042 POSTER

The significance of tumour free surgical excision margins in breast-conserving therapy

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Background: In the last decades, randomized trails have established breast-conserving surgery and radiation as an equal alternative treatment strategy compared to mastectomy in the treatment of breast cancer. In breast-conserving surgery the surgical margin is considered a strong predictor for local recurrence.
The aim of this study was to evaluate the results of re-excisions after breast-conserving surgery and to assess local recurrence rates in patients with an irradical or close tumour margin.
Materials: 411 female breast cancer patients (median age was 55 years (range: 29−83)) treated with breast-conserving therapy (BCT) at the Jeroen Bosch Hospital in the period 2000–2006 were included. Records of 55 patients with an irradical ($n = 48$) or/-close ($n = 7$) tumour margin, who underwent a second or third operation to obtain free margins, were retrospectively analyzed and compared to a control-group of 356 patients, in whom free margins were obtained at the first operation.
Results: In 55 of 411 patients (13%) a second operation to obtain free tumour margins was performed. Nineteen patients underwent a re-excision; 36 women were treated with either a mastectomy or a modified radical mastectomy (MRM). A second irradical re-excision was performed in 2 of 19 patients; they were subsequently treated with a mastectomy. Only in 38% ($n = 21$, 18/48; 3/7) of the reexcison-specimens, residual tumour tissue was found. The median follow-up ($n = 411$) to assess local recurrence was 52 months. During follow-up, 3 (2/48; 1/7) of 55 patients (5.5%) developed a local recurrence. In the control-group, 8 of 356 (2.2%) showed a local recurrence later on. The difference in local recurrence rate between the study group ($n = 55$) and the control group ($n = 356$) was not significant ($p = 0.171$).
Conclusion: In just one third of the patients treated with re-excision/ablation for an irradical or close resection margin, re-excision specimens show residual tumour. Local recurrence rate in the irradical/close margin group was not significant higher than in the control group, in which free surgical margins were obtained at the first operation.

5043 POSTER

The needs among Greek breast cancer patients during and after treatment

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The aim of this study was to generate new knowledge about breast cancer patients' experience of the treatment in the health care sector and about the needs of breast cancer patients during and after treatment.
Patients and Methods: A sample of patients in contact with Greek hospitals for treatment or control for a cancer were send an extensive questionnaire with of number of questions concerning patient satisfaction, rehabilitation and other needs, late effects and physical status. The number of participants were 350. The age of responders varied between 20 and 90 years, mean 61 years.
Results: The study showed a number of points for improvement in the communication and support of breast cancer patient during and after treatment. 30% wanted better support and information at the time of diagnosis, and the most so among educated and younger patients. During treatment, 19% of patients felt no psychological support, and 28% felt some support, while 37% felt good psychological support. Only about 49% of patients felt they were seen as an individual during treatment.