a standard to attain the best results. With a mean follow-up time of 12.3 years the 214 patients in this study treated with BCT according to the DBCG protocol exhibited low levels of moderate to severe fibrosis and high levels of satisfaction with the cosmetic outcome.

5193 POSTER

Invasive Ductal Breast Cancer. Correlation Between Tumour Size in Physical Examination, Mammography, Magnetic Resonance and Pathological Anatomy

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Background: The most frequent indication of magnetic resonance in breast cancer is the evaluation of tumoral extension. Several studies suggest that mammography and ultrasound underestimate tumour size. With our study, we try to analyze the correlation between the tumour size of invasive ductal carcinomas in physical examination, mammography, magnetic resonance and pathological anatomy.
Material and Methods: We review the 290 magnetic resonance made in our Radiology Department from 1st January 2009 to 1st September 2010. 56 of them were applied as complementary study before surgery of suspected lesions of breast cancer. We excluded lobular carcinoma and in situ ductal carcinoma. We made an analysis of paired test, and then a hypothesis test for equal sample testing, supported by an analysis of power curves. The paired test analysed were physical examination (PE) − mammography − magnetic resonance (MR) − pathological anatomy (PA).
Results: A 100% of the patients were women, with an average of age of 54.1 years old. A 42.8% of them were premenopausal. The averages of tumour size were: 18.3 mm in PE; 18.8 mm in mammography; 25.3 mm in MR and 24.8 mm in PA. The correlation between the tumour size in PE and PA is not statistically significant ($p = 0.05$, 95% CI 11.07; 1.93), and also between the mammography and the PA ($p = 0.05$, 95% CI 10.69; 1.47). The correlation between tumour size in mammography and MR is statistically significant ($p = 0.05$, 95% CI −9.83; −3.26), and also between MR and PA ($p = 0.05$, 95% CI −3.31; 4.25). We analysed the relation between clinical tumour size by MR and pathological size, and in a 25% of the cases, the clinical and the pathological stage were different. The pathological one was more advance in a 57.1% of them.
Conclusion: In our series, the mammography underestimate the tumour size, with no correlation with the pathological tumour size. However, there is a good correlation between the tumour size in magnetic resonance and the pathological size. The MR is the most reliable imaging technique to optimize the surgical and oncological treatment in patients with breast cancer.

5194 POSTER

Is the 21-gene Breast Cancer Test (Oncotype DX®) Good Value for Money?

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Background: The Oncotype DX® Breast Cancer Test (ODX) is a validated 21-gene assay that predicts 10 year risk of recurrence and the likelihood of benefit from adjuvant chemotherapy in early-stage, node-negative ER+ breast cancer. The cost-effectiveness of using ODX has been published in several countries but to date, there hasn't been any review of these studies.
Materials and Methods: The electronic database Pubmed and a selection of congress databases were searched using combinations of search terms designed to identify publications describing cost-effectiveness analyses of ODX in early stage breast cancer patients. Searches were limited to those published in the English language between January 2001 and April 2011. All records were screened for inclusion in the review.
Results: Five published health economics analyses and 1 abstract were identified. The studies were carried out in several countries (US (2), Canada, Japan, Israel and Hungary) and have used a Markov modelling approach based on data from a large multicentre trial (e.g. NSABP B-20) to make estimates of long-term outcomes, and assess the cost-effectiveness of using the ODX recurrence score in patients classified as having a high or low risk of distant recurrence using other methods of assessment. All studies were carried out in the perspective of the healthcare payer, and therefore did not consider broader costs to the patients and the society. Study comparators, costs, characteristics of the population receiving the test and impact of using the ODX results on treatment decisions were adapted to each individual country clinical practice explaining the large range of cost-effectiveness results from these studies. In the US, using ODX was shown to be cost-saving when in Canada, it was likely to be cost-effective (incremental cost-effectiveness ratio of $64,063 per QALY gained). Consistently across all five studies, use of ODX was projected to improve survival (where reported), quality-adjusted life expectancy and to reduce chemotherapy costs versus comparators.
Conclusions: Despite local adaption of the cost-effectiveness models, literature to date is consistently supporting the cost-effectiveness of using ODX in the various settings. Further analyses should be carried on to assess the budget impact of funding ODX and to include a broader perspective of the costs.

5195 POSTER

Persistent Pain After Targeted Intraoperative Radiotherapy (TARGIT) or External Breast Radiotherapy for Breast Cancer − a Randomized Trial

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Background: Persistent pain following breast cancer treatment affects between 25−60% of patients depending on surgical and adjuvant treatment [1]. The pathophysiology of persistent pain is complex and includes several pre-, intra and postoperative risk factors for the development of persistent pain after breast cancer treatment (PPBCT). Radiotherapy has been shown to be a risk factor [2]. It raises the question whether intraoperative radiation therapy (IORT), with its smaller radiation field may reduce the development of PPBCT. IORT has been compared to external breast radiation therapy (EBRT) in terms of recurrence and survival, in the randomized non-inferiority study, TARGIT-A trial. Using data from this trial, the aim of this study was to compare these two treatments with regard to development of PPBCT.
Materials and Methods: A total of 281 patients enrolled between 2007 and 2010 in the TARGIT-A trial (NCT00983684) from the Copenhagen University Hospitals were identified in the local TARGIT database. Exclusion criteria: patients receiving axillary lymph clearence, patients with bilateral disease, recurrence, other cancer, and patients not treated according to protocol. A total of 245 questionnaires were sent out. The response rate was 98%. Two patients were excluded due to insufficient answers in the questionnaire, leaving 239 for final analysis. A detailed questionnaire from a large nationwide study on PPBCT [1] was used.
Results: Disease and demographic characteristics in the two groups were similar. Pain prevalence were 33.6% in the EBRT group and 24.6% in the IORT group, which did not reach statistical significance ($p = 0.124$). Pain intensity was similar, most patients experiencing light pain (NRS $\leqslant 3$). Patients in the IORT group reported more pain in other places outside the treatment area (40.6% in the IORT group and 27.7% in the EBRT group $p = 0.045$).
Conclusion: This first study to compare IORT and EBRT in terms of PPBCT, shows that treatment with IORT does not increase the risk of PPBCT, and provides support for the safety of IORT in terms of PPBCT. Any potential positive effect of IORT on PPBCT will require a larger study.

References

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5196 POSTER

Relevance of Breast Cancer Subtypes for Magnetic Resonance Imaging (MRI) Response Monitoring Neoadjuvant Chemotherapy (NAC)

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Background: Recently some authors have reported that changes in magnetic resonance imaging (MRI) during neoadjuvant chemotherapy (NAC)