	n	LR		% survival		Death from breast cancer	
		no.	%	No LR	LR	Relative risk	p
EPG	144	21	15	99	81	19×	0.001
GPG	188	23	12	96	81	5×	0.089
MPG I	218	19	9	82	53	3×	0.003
MPG II	84	7	8	70	43	2×	0.085
PPG	42	9	21	65	7	2×	0.001
Total	676	79	12	87	63	3×	<0.001

LR rates (actuarial) are given to 108 months. Survival was analysed with/without LR.

Conclusions:

1. Cases which suffered prior LR had a worse survival (63% at 10 years) than those which did not (87%).
2. In all NPI groups survival was worse in those suffering LR.
3. The risk of death after LR in every prognostic group and the relative risk being higher in the best NPI groups, give strong evidence that it is the occurrence of LR rather than poor prognostic features coding for both death and LR.
4. The higher rates of LR in the EPG & GPG were brought about by the majority receiving neither RT nor Tamoxifen in these groups.

Local control is as important as the application of systemic therapies in improving survival.

379 Poster

Measurement of residual tumour size after neo-adjuvant chemotherapy for locally advanced breast cancer: accuracy of clinical examination, mammography, ultrasound and magnetic resonance imaging

W. Hung[1], C. Chan[1], L. Chan[2], K. Mak[3], A. Fung[2], P. Iu[2], H. Lam[2], Y. Lau[1], A. Yip[1]. [1]*Kwong Wah Hospital, Surgery, Hong Kong, China;* [2]*Kwong Wah Hospital, Radiology, Hong Kong, China;* [3]*Kwong Wah Hospital, Pathology, Hong Kong, China*

Introduction: In locally advanced breast cancer, neo-adjuvant chemotherapy is used to downsize the tumour and responders can undergo breast-conserving surgery instead of mastectomy. It is important therefore to have an accurate assessment of the residual disease after chemotherapy in order to plan the extent of surgery. Clinical assessment, mammogram and ultrasound are frequently used but the accuracy is not satisfactory. Magnetic resonance imaging (MRI) is increasing used to assess tumour extent in breast cancer. We examine the accuracy of residual tumour size measurement with these modalities by comparing with the pathological size after tumour resection.

Method: Patients with locally advanced breast cancer were prospectively recruited for neo-adjuvant chemotherapy. Chemotherapy consisted of an anthracycline-based regime. After chemotherapy, residual tumour was assessed by clinical examination, mammogram, ultrasound and MRI followed by definitive surgery.

Pathological size of residual tumour was correlated with the size measured by clinical examination, mammogram, ultrasound and MRI. Degree of correlation was measured by correlation analysis.

Result: Thirty-eight patients were recruited with a mean age of 43 (range 27 to 58). Mean tumour size was 69 mm (range from 37 to 130 mm). Eighteen patients (47%) had palpable axillary lymph node at presentation.

Clinical response was achieved in 30 patients (79%). Complete clinical response was seen in 7 patients (18%). Four patients (11%) had successful breast-conserving surgery and 29 underwent mastectomies. Two patients refuse operation after chemotherapy.

Clinical examination and MRI were significantly associated with pathological size (Pearson's correlation coefficient: 0.43 and 0.75 respectively). MRI gave better assessment than clinical examination. There was no significant correlation between pathological size and the size measured by mammogram or ultrasound.

Conclusion: Clinical examination and MRI gave significant correlation with residual tumour size. MRI was the best assessment of residual tumour size after neo-adjuvant chemotherapy.

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Potential role of [18F]FDG-PET/CT in the evaluation of therapy response after neoadjuvant chemotherapy

I. Segaert[1], P. Neven[1,2], S. Stroobants[3], M. Drijkoningen[4], F. Amant[1,2], K. Leunen[1], H. Wildiers[2,5], A. Smeets[2,6], I. Vergote[1], M.R. Christiaens[2,6]. [1]*University Hospitals Leuven, Gynaecologic Oncology, Leuven, Belgium;* [2]*University Hospitals Leuven, Multidisciplinary Breast Centrum, Leuven, Belgium;* [3]*University Hospitals Leuven, Dept. of Nuclear Medicine, Leuven, Belgium;* [4]*University Hospitals Leuven, Dept. of Anatomopathology, Leuven, Belgium;* [5]*University Hospitals Leuven, Dept. of Oncology, Leuven, Belgium;* [6]*University Hospitals Leuven, Dept. of Surgery, Leuven, Belgium*

Background: [18F]FDG-PET/CT is usefull for staging of locally advanced breast cancer (LABC). In metastatic breast cancer, it is accurate in the evaluation of chemotherapy response. This study evaluates the accuracy of PET-CT in predicting residual invasive tumour in the breast and axillary lymph nodes following neoadjuvant chemotherapy.

Patients and Methods: Twenty women with non-metastatic LABC with [18F]FDG-PET/CT positive breast cancers and a clinical response on chemotherapy were evaluated post-chemotherapy for residual disease. Residual tumour as estimated from clinical breast examination (CBE) and breast imaging (ultrasound, mammography, MRI) was compared with [18F]FDG-PET/CT. Pathologic assessment provided the reference for pathologic tumor response.

Results: see the table.

	Breast pathology				Nodes pathology			
	CBE/Imaging		PET/CT		CBE/Imaging		PET/CT	
	Macro	Micro	Macro	Micro	Macro	Micro	Macro	Micro
Sensitivity	64.2%	60%	71.4%	66.7%	100%	46.2%	100%	46.2%
Specificity	83.3%	80%	100%	100%	86.7%	85.7%	93.3%	100%
+ pred. value	90%	90%	100%	100%	71.4%	85.7%	83.3%	100%
− pred. value	50%	40%	60%	50%	100%	46.2%	100%	50%

Conclusion: PET/CT is not of great help in the evaluation of efficacy of neoadjuvant chemotherapy. All 4 efficacy parameters are unsatisfactory to replace histopathology.

In 9/20 patients the result of the PET-CT did not match with residual disease in breast or axilla.

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Breast cancer patients preferences for oral versus intravenous second-line anticancer therapy

J. Wojtacki[1], R. Wiraszka[2], G. Rolka-Stempniewicz[3], M. Grzegorczyk[4]. [1]*Cancer Outpatient Clinic, Gdansk, Poland;* [2]*Specialistic Voivodeship Hospital, Radom, Poland;* [3]*Polish Red Cross Maritime Hospital, Gdynia, Poland;* [4]*Medical University, Gdansk, Poland*

Background: several oral (PO) analogues of existing intravenous (IV) chemotherapeutic agents as well as more clinically efficient endocrine therapies (both oral and parenteral) are currently available to treat breast cancer patients with recurrent disease. Establishing patient perception regarding the route of anticancer therapy (ACT) may provide very useful information to help selecting from treatment alternatives that offer only small differences in survival, but might be less acceptable for patients. The study is aimed to elicit preferences for the route of eventual second-line ACT in women with early breast cancer.

Material and Methods: 528 consecutive cancer patients recruited in 3 centers fulfilled the following eligibility criteria to enter the study: 1) age between 20–75 years, 2) proper psychosomatic state to complete independently a therapy questionnaire preference, 3) at least 6 months interval between last course of chemotherapy and entering the study. The above group consisted of 263 breast cancer women (median age: 56, range: 27–75 years) without any evidence of disease, who completed their radical ACT 2–226 months (median: 36) before were interviewed. All the patients were directly asked about their preferences for the route of second-line ACT administration when the clinical efficacy and toxicity profiles are expected to be similar. Demographic and treatment-related data were collected by interviewers.

Results: 1) of 263 patients, 207 (78.7%) preferred PO ACT, 49 (18.6%) had not any preference (NP) and 7 (2.7%) wanted to be treated IV; 2) the most important reasons for this choice were convenience (limited ability to visit cancer center on regular basis), problems with IV access, and toxicity considerations (increased risk of IV-transmitted diseases) of the patients; 3) patients' choice was significantly associated with some clinical and