positive breast cancers and have occurred predominantly in the MPG2 and PPG.

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O-26 DOES THE ADDITIONAL PROGNOSTIC BENEFIT OF SCREENING IN EARLY BREAST CANCER (EBC) APPLY TO ALL PATIENTS?

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Introduction: Screen detection may confer prognostic benefit independent of disease stage in EBC leading to suggestions that mode of presentation should be considered when deciding adjuvant therapy. We aim to determine if this additional prognostic benefit is seen in all patients.

Methods: Data from 3 centres in Glasgow of consecutive women aged between 50 and 65 years with EBC diagnosed between 1995 and 2001 were examined. Patients were grouped by mode of presentation into screen detection and symptomatic. Breast cancer specific survival was the end-point. Multivariate analysis including interaction between mode of presentation and pathology was performed with further subgroup analysis if the interaction was significant.

Results: Women (1534) were included with a median follow-up of 5.5 years. Mode of presentation was screening in 1007 (65.6%) women. After adjustment for pathology screen detection had no significant survival benefit: HR 0.73 (0.50–1.08, $p = 0.116$). Mode of presentation had an independently significant interaction with both nodal status and ER status ($p = 0.003$ and $p = 0.01$ respectively). Further analysis demonstrated that screening was an independent predictor of survival in the 1–3 node positive group (HR 0.33 (0.15–0.73), $p = 0.006$); the ER positive group (HR 0.53 (0.31–0.89), $p = 0.017$) and in the moderate NPI group only (HR 0.54 (0.31–0.94), $p = 0.030$).

Conclusions: These results provide evidence of a significant interaction between mode of presentation and pathology. Further research is needed before incorporating mode of presentation into decisions regarding adjuvant therapy.

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O-27 EPITHELIAL PROLIFERATION (Ki67) IS PROGNOSTIC IN SYMPTOMATIC BUT NOT SCREEN DETECTED BREAST CANCERS (SDBC)

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Epithelial proliferation has been used to determine therapy in the St. Gallen guidelines (Ki67 $\geqslant$30% indicates the need for chemotherapy). UK screen detected breast cancers (SDBC) (aged 50–65 years) have an overall 97.2% 5 year relative survival compared to 77.6% for symptomatic cancers.

To determine the value of Ki67 in post-menopausal breast cancer in women aged 50–65 years, we have studied Ki67 in 1270 women with either symptomatic cancers ($n = 412$) or SDBC ($n = 858$). Mean Ki67 in SDBC was 21.4 (SD 10.3) and 34.2 (SD 16.2) in symptomatic cancers ($p = \leqslant 0.001$). For each 10 unit increase in Ki67, increases in distant relapse occurred (RR 1.43: 95%CI; 1.32–1.55). Twelve per cent of symptomatic and 2% of SDBC had died within 5 years.

Out of 458 women with Ki67 $\leqslant$20, 27 died within 10 years (93.2% survival) compared to 143 out of 775 with Ki67 $\geqslant$20% (79% survival) ($p = \leqslant 0.001$).

Ki67 was prognostic for symptomatic cancers of distant relapse ($p = 0.01$) and mortality ($p = 0.01$) but was only predictive of recurrence ($p = 0.01$) and not mortality in SDBC. In SDBC, Ki67 values in the 2% who died did not differ from those alive at 5 years and use of cut-off score of Ki67 of $\geqslant$20% would have potentially selected 35% of women for chemotherapy and a Ki67 of $\geqslant$30% would have potentially selected 12% of women.

Epithelial proliferation is prognostic, but not predictive, of chemotherapy benefit in SDBC.

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O-28 FACTORS ASSOCIATED WITH A COMPLETE PATHOLOGICAL RESPONSE FOLLOWING NEO-ADJUVANT CHEMOTHERAPY FOR BREAST CANCER

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Background: Chemotherapy for treatment of breast cancer has been increasingly used in neo-adjuvant setting to facilitate pre-operative reduction in tumour size to make amenable to surgery or to facilitate breast-conserving surgery in the place of mastectomy. A complete pathological response to chemotherapy is associated with a greater overall and disease free survival.

Purpose: This study aimed to identify molecular markers, disease and treatment factors associated with complete pathological response to neo-adjuvant chemotherapy in breast cancer.

Methods: Fifty-six patients who received neo-adjuvant chemotherapy at our institution between January 2006 and January 2010 with complete histological information and definitive surgery at the time of data collection were identified. Age, type, grade, category of cancer, molecular markers including ER, PR, HER2, imaging size, nodal status, chemotherapy regimen and pathological response were recorded. Chi squared and Fisher Exact test were used for statistical analysis.

Results: Eleven patients (19.6%) undergoing neo-adjuvant chemotherapy had a complete pathological response and 6 patients