Mean patient age at biopsy was 48.2 years, while malignancy detected 57 patients' mean age was 51.5 years.
59 malign lesions were detected in 242susceptible lesions (malignity rate: 24.4%) and high risk lesion (LCIS, atypical ductal/lobular hyperplasia, lobular neoplasia) in 11 (4.5%). Of 59malignancy, 19 were in situ and 40 invasive (inv) tumors.
Of 233 patients, 138 were between 35 and 49 years old. In these 138 women, 145susceptible lesions were detected [27 malign (18.6%), 7 high risk (4.8%)]. In these age group, microcalcifications (M) were the most detected lesion via MMG (84.9%) and mass via USG (89.2%).
Via imaging malign lesions of these age group were detected the most as M (55.6%), in situ tumors as M (75%) also, but inv tumors as mass (60%). If imaging presentation was M, malignancy or high risk lesion detection rate was 45% and if it was mass, the rate was 15.4%.
Of the 27 malign lesions, 12 were in situ tumors (44.4%) while 10 others (37.0%) were early stage inv breast ca (stage1, 2a&2b) (early stage breast ca rate was 81.5%).
This study shows, even in 35−49 year old women, although their breast is denser than the older age group, in nonpalpable lesions the malignity rate was 18.6%, comparable to all ages' malignity rate, and also early stage breast ca diagnosed via IGWLBB was as high as 81.5%. Then, since when M were detected via imaging, rate of detection of malign or high risk lesion was almost half of all M (45%), and since in situ tumors were detected the most as M (75%) and M are found the most easily via MMG, it's shown even in 35−49 year old women how important the MMG is in diagnosing breast ca at an earlier stage.

5191 POSTER

Allele-specific aberrations and two dimensional disparity of copy number alterations in breast cancer

F. Kaveh[1], H.K. Solvang[2], A.L. Børresen-Dale[3], V.N. Kristensen[4]. *[1]Rikshospitalet/Radiumhospitalet-HF, Genetics, Oslo, Norway; [2]Rikshospitalet/Radiumhospitalet-HF- Institute of Basic Medical Science University of Oslo, Genetics – Biostatistics, Oslo, Norway; [3]Rikshospitalet/Radiumhospitalet-HF- University of Oslo, Genetics – Faculty of Medicine Oslo University, Oslo, Norway; [4]Rikshospitalet/Radiumhospitalet-HF- University of Oslo, Genetics – Faculty division Akerhus University Hospital Faculty of Medicine University of Oslo, Oslo, Norway*

Background: The localization and identification of disease susceptibility genes is an active field in the forefront of medical genetics. Copy number variations (CNVs) usually occur when there is a genomic rearrangement in a segment of DNA during the cell division. Every diploid has two copies of a locus but in a cancer cell this may vary and leads to occurrence of copy number alterations (CNAs). We focus on the disparity of CNAs in tumor samples compared to blood samples in two directions (horizontal and vertical).
Material and Methods: We applied a visualization method to Illumina 109K SNPs array data on 112 individuals. Two outputs of Illumina, B allele frequency and log R ratio were derived from the BeadStudio Genotyping Module. Following analyses were performed in MATLAB®.
We applied a filter to blood (reference) data not only to remove the contaminations (unclear genotypes) but also divide into three regions of AA, AB and BB (around 0, 0.5 and 1). In second step, same SNP numbers were retrieved from tumor data for which the analysis performed. The distance between blood heterozygote and tumor was measured. If it was greater than the mean + standard deviation value then those tumor samples were chosen as departed from heterozygote to homozygote regions. Subsequently, for every SNP the frequencies of disparity of individuals were calculated and visualized for each chromosome with the A allele above and B allele frequencies below the X axis. SNPs with equal propensity to lose both alleles resulted a symmetric plot, while SNPs where one of the allele was preferentially lost, resulted in an asymmetric plot. Based on an arbitrary threshold, only the asymmetric SNPs were highlighted. Finally, genes involved in the asymmetric region were obtained.

Chromosome	SNPs	Uncontaminated	Asymmetric	Chromosome	SNPs	Uncontaminated	Asymmetric
1	9819	7416	4256	13	3093	2415	1349
2	8702	6765	3969	14	3420	2586	1485
3	7207	5686	3203	15	3307	2549	1544
4	6000	4734	2684	16	3388	2522	1482
5	6329	4990	2814	17	4079	3148	1825
6	6579	5147	2952	18	2570	2006	1209
7	5581	4349	2446	19	3520	2774	1699
8	4891	3949	2280	20	3007	2277	1330
9	4480	3504	2053	21	1381	1104	626
10	5240	3999	2313	22	1886	1407	765
11	5928	4659	2681	X	3430	2220	1370
12	5465	4128	2316				

Results: Table shows SNP numbers, uncontaminated (after filtering) and asymmetric SNPs involved in horizontal disparity.
Conclusions: These findings provide evidence which genes involve in breast cancer and studying in two directions helps in finding a statistically reliable statement about the behaviour of these groups of genes.

5192 POSTER

Early diagnosis and screening for breast cancer: a population-based study

K. Hayran[1], H. Abali[2], S. Kilickap[3], H. Aksoy[4], A. Kemik[4], H. Gokce[4], H. Gokdemir[4], S. Toplar[4], D. Kaya[4], G.G. Isbir[4]. *[1]Hacettepe Universitesi Onkoloji Enstitüsü, Prevantif Onkoloji, Ankara, Turkey; [2]Adana Baskent Universitesi Tip Fakültesi, Medikal Onkoloji, Adana, Turkey; [3]Hacettepe Universitesi Onkoloji Enstitüsü, Medikal Onkoloji, Ankara, Turkey; [4]Mersin Il Saglik Müdürlügü, Pratisyen Hekim, Mersin, Turkey*

Background: The aim of this cross-sectional, population-based study is to inform the healthy women about breast cancer and to screen them as well as to present the relationship between the demographic and the clinical findings.
Methods: The present study was carried out between 1 January 2006 and 30 June 2008 in 111 health care centers located in Mersin, Turkey. 35 health teams were generated prior to the study. The teams were primarily trained for breast examinations and for screening methods to detect breast cancer. The study population was planned to include all of the female subjects who applied to the health care centers for any reason. Each subject was offered a detailed breast examination and a general examination as a screening method by the authorized health personnel.
Results: A total of 77,934 subjects were evaluated. General health examinations were performed in 66% (n = 51,706) of the participants. A suspected mass was detected in 6% of the examined participants. This constituted 3.6% of all subjects. The mean age, education and income levels of the subjects in the examined group were similar to those in the group refusing examination. The percentage of the subjects who declined an examination was 2-folds higher in the $\geqslant$60 year age group compared to <60 years (14.8 vs. 6.6%). The rate of those willing to be examined was lower among the subjects who were living outside the city center than of those living in the center (33% vs. 18%).
A breast mass was detected in 2838 subjects who had undergone a breast examination. The mean age of the subjects in whom a mass had been detected was 39.1 years, whereas it was 36.6 years for those with a normal breast examination ($p < 0.001$). While 15.1% of the subjects with suspicious examination findings were either high school or university graduates, this rate was higher in subjects with normal examination findings (23.7%; $p < 0.001$). Among the subjects in whom a mass had been detected, the rate of the subjects followed-up at the city center was 65%, whereas it was 35% for those in the other group.
Conclusion: For screening breast cancer, participation of elderly subjects, subjects living in rural areas and subjects with low educational as well as lower socio-economic levels should receive special attention.

5193 POSTER

Can adjuvant homeopathy improve the control of post-chemotherapy emesis in breast cancer patients? Results of a randomized placebo-controlled trial

I. Ray-Coquard[1], J. Provençal[2], A.C. Hardy-Bessard[3], T. Bachelot[1], D. Coeffic[4], J.P. Jacquin[5], J.P. Guastalla[1], C. Agostini[6], A. Bajard[7], D. Pérol[7]. *[1]Centre Régional Léon Bérard, Médecine, Lyon, France; [2]Centre Hospitalier d'Annecy, Hématologie Clinique, Annecy, France; [3]Clinique Armoricaine de Radiologie, Médecine, Saint-Brieuc, France; [4]Institut Daniel Hollard, Médecine, Grenoble, France; [5]Institut de Cancérologie de la Loire, Médecine, Saint-Etienne, France; [6]Centre Hospitalier Général, Medecine, Chambéry, France; [7]Centre Régional Léon Bérard, Unité de Biostatistique, Lyon, France*

Background: Homeopathy used as an adjunct in the treatment of chemotherapy (CT)-induced emesis has rarely been evaluated.
Material and Methods: Patients with non-metastatic breast cancer treated with 6 courses of FAC 50, FEC 100 or TAC chemotherapy were randomized to Cocculine (C) or Placebo (P) in a multicentric comparative double-blind phase III study. Anti-emetic treatment was standardized (corticoids + ondansetron). Patients were evaluated after each course. The primary endpoint was nausea measured after the 1st CT course using the FLIE (Functional Living Index for Emesis) with 5-day recall. The planned sample size was 396 evaluable patients based on a minimum expected difference in mean of 0.5 ± 1.6 on a scale from 1 (a lot) to 7 (not at all) with 5% two-sided α error and 85% power. An intent-to-treat analysis was planned. Secondary evaluation criteria were: vomiting measured by the FLIE score, patient