

**Results** According to the International Diabetes Federation definition, MS prevalence was 29.7% in SAIs without CAD. 26% had HDL inflammatory index  $\geq 1$  suggesting Dys-HDL. Six novel APOA-1 gene polymorphisms were discovered and on logistic regression, three single nucleotide peptides-SNPs (G2, G3, and G5) were found to be significantly associated with MS ( $p=0.397$ ,  $p=0.386$ ,  $p=0.054$ ). On multi-variate analysis, MS was significantly associated with BMI  $>23$  ( $p=0.005$ ), Apo-A-I levels ( $p=0.01$ ), and Lp [a] ( $p<0.0001$ ).

**Conclusion** SAIs are known to be at a disproportionately high risk for CAD that may be attributed to a high burden for MS. There is need to explore and understand non-traditional risk factors with special focus to Dys-HDL, knowing that SAIs have low HDL levels. Large prospective studies are needed to further strengthen current study results.

### SP1-28 COMPARISON OF ESTABLISHED RISK FACTORS FOR PRE-MENOPAUSAL AND POST-MENOPAUSAL BREAST CANCER

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<sup>1,2</sup>R Ghiasvand,\* <sup>2</sup>E S Maram, <sup>2</sup>H R Tabatabaee, <sup>2,3</sup>S Tahmasebi. <sup>1</sup>Cancer Research Center, Cancer Institute of Iran, Tehran, Iran; <sup>2</sup>Shiraz University of Medical Sciences, Shiraz, Iran; <sup>3</sup>Cancer Research Center, Shiraz University of Medical Sciences, Shiraz, Iran

**Introduction** Molecular, epidemiologic and clinical evidences suggest that there are two main breast cancer types: pre-menopausal and post-menopausal. The purpose of this study was to ascertain the differences between distribution and strengths of risk factors in pre-menopausal and post-menopausal breast cancer.

**Methods** A case control study was conducted. We included 1014 women with histologically confirmed, incident breast cancer and 1014 controls matched by age and province of residency. All information for the exposures was collected during face-to-face interviews. Logistic regression was performed to investigate associations of reproductive and anthropometric factors in the risk of pre-menopausal and post-menopausal breast cancer. We used Receiver Operating Characteristic (ROC) analysis to compare two models.

**Results** Longer duration of breastfeeding, positive family history, employment vs housekeeping, oral contraceptive (OC) usage and higher parity were shown significant association with pre-menopausal breast cancer. Higher education, employment vs housekeeping, later age at first marriage, OC usage, positive family history and higher BMI were significant association with post-menopausal breast cancer. The comparison of logistic models for pre-menopausal and post-menopausal breast cancer demonstrated that patterns of risk factors were significantly different. Area Under Curve (AUC) =0.7442 for women  $\geq 50$  years vs AUC=0.6635 for women  $<50$  years,  $p<0.001$ .

**Conclusion** Established risk factors can predict post-menopausal breast cancer well, and unknown factors have a greater role in the prediction of pre-menopausal breast cancer.

### SP1-29 FATIGUE AND QUALITY OF LIFE IN BREAST CANCER SURVIVORS: TEMPORAL COURSES AND LONG-TERM PATTERN

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<sup>1</sup>M Schmidt,\* <sup>1</sup>J Chang-Claude, <sup>2</sup>D Flesch-Janys, <sup>1</sup>K Steindorf. <sup>1</sup>German Cancer Research Center, Heidelberg, Germany; <sup>2</sup>University Medical Center Hamburg-Eppendorf, Hamburg, Germany

**Introduction** Fatigue is a major severe complaint in the growing population of breast cancer survivors. Therefore, we investigated the

different courses of fatigue from pre-diagnosis to long-term follow-up, and their associations with long-term quality of life (QoL) in disease-free breast cancer survivors, including comparisons with the general population.

**Methods** Incident breast cancer patients diagnosed 2001–2005 were recruited in a case-control study conducted in Germany (MARIE). At follow-up in 2009 (median 5.8 years), patients who were still alive self-reported current fatigue and QoL status using validated questionnaires (FAQ, EORTC-QLQ-C30). In addition, survivors retrospectively rated fatigue levels pre-diagnosis, during different treatment phases, and 1 year post-surgery. Our analyses included 1928 disease-free breast cancer survivors without elevated pre-diagnosis fatigue levels.

**Results** Fatigue levels were increased during radiotherapy, without significant difference between patients with and without chemotherapy. Among patients who received both therapies, 61.4% reported higher, 30% same, 8.6% lower fatigue levels during chemotherapy compared to radiotherapy. Inter-individual variation in courses of fatigue was high. Survivors with persisting long-term fatigue had significantly and markedly worse scores for all EORTC QoL functions and symptoms several years after end of adjuvant treatment than other survivors and compared to the general population.

**Conclusion** Chemotherapy appears to have a stronger negative impact on fatigue than radiotherapy. Breast cancer survivors may have long-term QoL comparable to the general population, even when they had substantial fatigue during treatment. However, prolonged or persistent fatigue can lead to extensive continuing loss in QoL with respect to physical, social, cognitive, and financial aspects.

### SP1-30 PREDICTORS OF RECOVERY OF FUNCTIONALITY AFTER HIP OR WRIST FRACTURES DUE TO FALLS IN ELDERLY PEOPLE

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<sup>1</sup>J M Quintana,\* <sup>1</sup>M Orive, <sup>2</sup>A Bilbao, <sup>1</sup>S Garcia, <sup>1</sup>C Las Hayas, <sup>1</sup>G Navarro, <sup>1</sup>U Aguirre. <sup>1</sup>Hospital Galdakao-Usansolo, Galdakao, Bizkaia, Spain; <sup>2</sup>Bioef, Sondika, Bizkaia, Spain; <sup>3</sup>Corporació Sanitaria Parc Taulí, Sabadell, Barcelona, Spain

**Introduction** Hip fractures are one of the most severe fractures that elderly patients may suffer while wrist fractures are among the most common. The goal of this study was to determine which clinical and social factors predict a better recovery of functionality, as measured by the Barthel questionnaire, after those fractures.

**Methods** Patients older than 65 years who attended the emergency room (ER) of 7 acute hospitals with a hip or wrist fracture due to a fortuity fall were recruited. Patients fulfilled the Barthel questionnaire at the time of the fall, as how they were before the fall, and 6 months later, as well as some other questions on socio-demographic parameters. Clinical parameters from the ER and admission to the hospital were also recorded. Univariate and multivariate regression analysis were performed, considering the change on Barthel as dependent variable.

**Results** Preliminary analysis of our data (recruitment of 343 patients with hip and 412 wrist fractureS) showed an important decline in Barthel scores (hip: 23.2; wrist fractures: 5.4 points) at 6 months after the fracture. Patients who were older, who did not receive social support and not living alone were those with higher losses on hip fracture, after adjusting by baseline scores. In the case of wrist fractures, older patients and those not living alone had higher losses in the Barthel.

**Conclusion** Providing support through social services as well as the living status of the patient diminished the losses in general function perception due to those fractures.