PS2-41:

The FTO Gene, Its Variants and Post-menopausal Breast Cancer

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Background: Adiposity is a well-accepted risk factor for post-menopausal breast cancer (PMBC). SNPs of the FTO gene, located on chromosome 16q12.2, have been associated with adiposity by lowering the activity of the enzyme lipase. This gene also encodes for a protein involved in DNA damage repair pathway. The current epidemiologic paradigm associates the risk of PMBC with increased aromatization of androstenedione to estradiol in peripheral adipose tissue and increased serum levels of insulin-like growth-factors. The increased systemic inflammation because of adiposity motivates the inquiries for other plausible biochemical mechanism. We are conducting a pilot nested case-controls study to investigate the association between 3 SNPs of FTO gene with the risk of PMBC, adjusted for the major risk factors. Presently data are available from 50 cases and 202 controls from the cohort of MyCode Biobanking Project at Geisinger Health System. **Methods:** We genotyped the 3 SNPs (rs1861868, rs1477196 and rs9939609) of the gene. Generalized linear model was used to evaluate the association between these 3 SNPs. We also conducted analyses of haplotypes for 2-SNPs and 3-SNPs association, respectively; odds ratios (OR) and 95% confidence intervals (CI) were calculated to estimate the association between haplotypes and PMBC, and between the genotypes of each SNPs (as an ordinal variable) and PMBC applying unconditional logistic regression modeling approach, while controlling for BMI, age, parity status (≥ 3 or < 3) and family history for breast cancer. **Results:** Our analyses suggest that 2 of the SNPs (rs1861868 and rs1477196) most likely form a haplotype ($P = 0.002$) that is exclusive of the third SNP (rs9939609, $P > 0.3$). None of these SNPs or haplotypes was associated with BMI ($p > 0.4$), diabetes and metabolic syndrome ($P > 0.15$). Results from the multivariate logistic model suggested a trend toward a potential association (OR=1.68, CI=0.67-4.18, $P = 0.09$) between the (rs1861868) SNP and PMBC. **Conclusion:** Our pilot study attempts to evaluate the association between SNPs of the FTO gene with PMBC, independent of BMI or other risk factors for PMBC. One SNP was found to be likely associated with PMBC, but the present small sample size eclipses the power of identifying a definite association.

Keywords: FTO gene, Post-menopausal breast cancer

doi:10.3121/cmr.2011.1020.ps2-41

PS2-26:

Measuring Patient-Centered Communication in Cancer Care: A Systematic Approach

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Background/Aims: Patient-centered communication (PCC) is a critical element of patient-centered care, which the Institute of Medicine (2001) promulgates as essential to improving healthcare delivery. The National Cancer Institute's Strategic Plan for Leading the Nation (2008) calls for assessing the delivery of PCC in cancer care. However, no comprehensive measure of PCC exists, and stakeholders have different conceptualizations and assumptions about how to measure it. The purpose of our study was to develop a set of self-administered patient survey items for comprehensive PCC assessment. **Methods:** Our approach was grounded in the PCC conceptual framework, as presented in the NCI monograph, Patient-Centered Communication in Cancer Care (2007), which defines six functions of PCC: (1) exchanging information, (2) fostering healing relationships, (3) recognizing and responding to emotions, (4) making decisions, (5) managing uncertainty, and (6) enabling patient self-management. First, we developed a comprehensive inventory of measurement domains and subdomains, aligned with the PCC functions, by reviewing relevant literature, consulting experts, and conducting a small qualitative study involving patient interviews. Next,

we inventoried over 100 survey and other measurement instruments, identifying over 1,300 possible items. We evaluated items using a systematic question appraisal system, adapted existing measures as appropriate, and developed new questions to fill identified gaps. Finally, we tested more than 200 survey questions with cancer patients ($n = 46$) using cognitive interviews.

Results: Overall, the findings from the cognitive interviews suggest that the survey questions function well. Patients were generally able to understand the questions and apply them to their own experiences. Many participants reported that the questions reflected important aspects of their interaction with providers. **Conclusions:** The draft PCC survey items can now be used for population surveillance, quality assessment, and intervention research in the context of cancer care. Although the survey items focus on PCC with respect to cancer care, many are relevant to all patients as patient-centered care is a goal for health care generally. We discuss challenges of PCC assessment, including measuring communication experiences across different care settings, types of clinicians, and stages in the cancer care continuum. Measuring PCC longitudinally over the course of care and balancing parsimony and comprehensiveness are important considerations.

Keywords: Cancer, Communication, Measurement

doi:10.3121/cmr.2011.1020.ps2-26

PS2-24:

Using Patient-Centered Conversational Interviews to Collect Data from Cancer Survivors

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Background: The richness of patients' experiences warrants thoughtful and careful examination. While standardized surveys or other structured approaches can be useful when the goal is to count or summarize relatively uncomplicated experiences, they may be less appropriate when the objective is to study sensitive topics, such as medical errors during cancer care. This abstract describes and evaluates a flexible, patient-centered approach to interviewing patients. **Methods:** Using a patient-centered telephone interview guide, we interviewed cancer patients who had experienced a problem during their care. Participants were first asked to fully describe their experience; follow-up questions probed for details relevant to the study questions. Question order varied, consistent with a conversational approach. Interviews lasted 60-90 minutes and were digitally recorded. We calculated the percentage of words uttered by participants (compared to the interviewer) as a measure of participant engagement, and noted whether participants corrected the interviewer. Strengths and limitations of this approach are also identified. **Results:** Seventy-eight patients were interviewed; 96% (75/78) were female, mean age was 57.7 [SD 10.6]. Overall, participants uttered an average of 77% (6,190/8,001) of the words in the interview. Participants corrected the interviewer at least once in 80% (62/78) of the interviews. Question order was flexible, and probes were used at the discretion of the interviewer. Thus, the interviewer could adapt her questioning to follow the participant's lead, and sensitively encourage and support participants in sharing details of painful experiences. One benefit of this technique was that it allowed the interviewer to convey interest and respect, which enhanced rapport early in the interview. It also enabled participants to recall details that may otherwise have been forgotten. The drawbacks of this approach include longer interview times; discussion of unrelated topics (by participants) and increased time required for data analyses. **Conclusions:** Patient-centered conversational interviewing can facilitate investigation of emotionally-charged, personal experiences. This approach appears more effective than standardized interviewing techniques when the goal is to fully understand patients' experiences, such as those of cancer survivors who believe that an error occurred during their cancer care.

Keywords: Patient-centered interview, Cancer care

doi:10.3121/cmr.2011.1020.ps2-24