

ABSTRACTS • 44th Annual Meeting • American Society of Preventive Oncology, Marriott Tucson University Park, Tucson, Arizona, March 22–24, 2020



The following are the 17 highest scoring abstracts of those submitted for presentation at the 44th Annual ASPO meeting held March 22–24, 2020, in Tucson, AZ.

Auto-antibodies to p53 and the Subsequent Development of Colorectal Cancer in a United States Prospective Cohort Consortium

Butt J, Blot WJ, Visvanathan K, Le Marchand L, Chen Y, Sesso HD, Wassertheil-Smoller S, Ho GYF, Tinker LE, Potter JD, Song M, Berndt S, Waterboer T, Pawlita M, Epplen M

Auto-antibodies to tumor suppressor p53 are found in a subset of colorectal cancer (CRC) patients. A prospective cohort study in the US (Cancer Prevention Study II) has recently reported a statistically significant 1.8-fold increased odds for the development of CRC based on pre-diagnostic sero-positivity for p53; the magnitude of this association decreased with longer time-span between blood sampling and diagnosis. In the present study, we sought to examine this association in a large US CRC cohort consortium to evaluate the potential utility of p53 auto-antibodies as an early CRC detection biomarker. Methods: Antibody responses to p53 were measured in pre-diagnostic blood samples of 3,702 incident CRC cases (median [range] follow-up: 7.3 years [0–40 years]) and an equal number of controls, matched by age, race, and sex, from 9 US prospective cohorts. The association of sero-positivity to p53 with CRC risk, overall and by time between blood draw and diagnosis, was determined by conditional logistic regression. Results: Overall, 5% of controls and 7% of cases were sero-positive to p53, resulting in a statistically significant 33% increased CRC risk (OR: 1.33; 95% CI: 1.09, 1.61). The association was strongest for CRC diagnoses within 2 years after blood draw (OR: 2.73; 95% CI: 1.67, 4.45), with 15% sero-positive cases compared to 6% sero-positive controls. The number of sero-positive cases decreased with longer follow-up time (2–<5 years: 9%; 5–<10 years: 6%; ≥10 years: 3%) down to a proportion similar to that in controls resulting in the absence of an association of p53 sero-positivity with CRC risk after more than 5 years between blood draw and CRC diagnosis. Conclusion: In this large consortium of prospective cohorts, we found that pre-diagnostic sero-positivity to the tumor suppressor p53 was statistically significantly associated with a 2.7-fold increased risk of a subsequent CRC diagnosis within 2 years after blood draw, replicating the findings of the one previous cohort study examining this association. The findings suggest that while p53 sero-positivity may not be a useful predictor of long-term CRC risk, p53 auto-antibodies might be considered as part of a marker panel for early detection of this cancer.

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Longitudinal Dyadic Interdependence in Psychological Distress Among Latinas With Breast Cancer and Their Informal Caregivers

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Cancer diagnosis and treatment can generate substantial distress for both survivors and their informal caregivers, defined as family members or friends who provide care and assistance to the cancer survivor. The primary aim of this investigation is to test a model of dyadic interdependence in distress experienced by Latina breast cancer survivors and their informal caregivers to determine if each influences the other. Methods: To test this prediction, 209 Latinas with breast cancer and their informal caregivers (dyads) were followed for 4 waves of assessment over the course of 6 months. Both psychological (depression, anxiety, perceived stress) and physical (number of symptoms, symptom distress) indicators of distress were assessed. Longitudinal analyses of dyadic data were performed in accordance with the actor-partner interdependence model using linear mixed effects modeling. Results: Findings indicated that psychological distress was interdependent between cancer survivors and their informal caregivers over the 6 months of observation. Caregivers experienced greater depression, anxiety, and stress to the extent that the survivors reported such distress, and vice versa. These effects held, even when controlling for nature of the survivor-caregiver relationship (married to each other or not), education, and the dyads' baseline similarity on distress. However, there was no such evidence of interdependence on indicators of physical distress. Conclusions: These findings are consistent with emotional contagion processes by which psychological distress is transmitted over time between cancer survivors and their informal caregivers. Latina cancer survivors are a particularly vulnerable population due to health disparities, linguistic barriers, and socioeconomic challenges. Management of psychological distress is of particular concern in this population. These findings point to the potential importance of caregiver well-being for the welfare of Latina breast cancer survivors.

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