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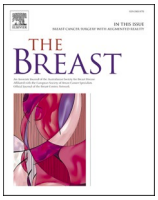

Is there a link between elevated C-reactive protein levels and specific breast cancer molecular subtypes?☆

To The Editor, I wish to congratulate Zhang and their colleagues for their article [1] in which they we aimed to comprehensively investigate the associations between hematological and biochemical markers and the risk of in situ and invasive breast cancer (BC) and mortality in the UK Biobank cohort. Eleven biomarkers were found to be significantly associated with the risk of invasive BC including mainly inflammatory-related biomarkers and endogenous hormones, while serum testosterone was also associated with the risk of in-situ BC. Among them, C-reactive protein (CRP) was more likely to be associated with invasive BC and its transition to death from BC (HR for the highest quartile = 1.46). They further found that high CRP conferred greater risks for invasive BC and its transition to breast cancer mortality rather than the transition from in-situ cancers to invasive cancers. They did not, however, provide detailed information on the distribution of BC subtypes. Notably, few epidemiological studies have examined the relationship between CRP levels and BC by molecular subtype, with conflicting results. One study in Italy reported a significant association between high CRP and TNBC and luminal B premenopausal BC [2]. Another study in China discovered that only hormone receptor positive and HER2 negative BC had elevated serum CRP [3]. Furthermore, Gupta et al. [4] examined the association of high-sensitivity CRP (hsCRP) with odds of BC by molecular subtype among Nigerian women. They observed significant positive associations between hsCRP levels and odds of luminal A, triple negative (TN), and HER2-enriched BC. High CRP levels are more likely to be associated with highly proliferative subtypes like TNBC, HER2-enriched BC, and luminal B BC than luminal A BC. To better characterize the association of CRP with BC risk by molecular subtype, larger prospective cohort epidemiological studies on this topic are required.

CRediT authorship contribution statement

Kadri Altundag: Conceptualization, Data curation.

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☆ I have no conflict of interest.

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