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Tilanus-Linthorst, MM; Hall, P; Czene, K; Liu, J; Li, J; Cox, A; Cross, SS; Brock, IW; Reed, MW; Pharoah, P; Blows, FM; Dunning, AM; Ghoussaini, M; Ashworth, A; Swerdlow, A; Jones, M; Schoemaker, M; Easton, DF; Humphreys, M; Wang, Q; Peto, J; dos-Santos-Silva, I

**Titel des Beitrags:**
9q31.2-rs865686 as a susceptibility locus for estrogen receptor-positive breast cancer: evidence from the Breast Cancer Association Consortium.

**Abstract:**
Our recent genome-wide association study identified a novel breast cancer susceptibility locus at 9q31.2 (rs865686). To further investigate the rs865686-breast cancer association, we conducted a replication study within the Breast Cancer Association Consortium, which comprises 37 case-control studies (48,394 cases, 50,836 controls). This replication study provides additional strong evidence of an inverse association between rs865686 and breast cancer risk (study-adjusted per G-allele OR, 0.90; 95% confidence interval (CI), 0.88; 0.91, \( P = 2.01 \times 10^{-29} \)) among women of European ancestry. There were ethnic differences in the estimated minor (G)-allele frequency among controls [0.09, 0.30, and 0.38 among, respectively, Asians, Eastern Europeans, and other Europeans; \( P \) for heterogeneity (\( P(het) \)) = 1.3 \times 10^{-143}]), but no evidence of ethnic differences in per allele OR (\( P(het) \) = 0.43). rs865686 was associated with estrogen receptor-positive (ER(+)) disease (per G-allele OR, 0.89; 95% CI, 0.86-0.91; \( P = 3.13 \times 10^{-22} \)) but less strongly, if at all, with ER-negative (ER(-)) disease (OR, 0.98; 95% CI, 0.94-1.02; \( P = 0.26 \); \( P(het) = 1.16 \times 10^{-6} \)), with no evidence of independent heterogeneity by progesterone receptor or HER2 status. The strength of the breast cancer association decreased with increasing age at diagnosis, with case-only analysis showing a trend in the number of copies of the G allele with increasing age at diagnosis (\( P \) for linear trend = 0.0095), but only among women with ER(+) tumors. This study is the first to show that rs865686 is a susceptibility marker for ER(+) breast cancer. The findings further support the view that genetic susceptibility varies according to tumor subtype.

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