Dokumenttyp: journal article

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11q13 is a susceptibility locus for hormone receptor positive breast cancer.

A recent two-stage genome-wide association study (GWAS) identified five novel breast cancer susceptibility loci on chromosomes 9, 10, and 11. To provide more reliable estimates of the relative risk associated with these loci and investigate possible heterogeneity by subtype of breast cancer, we genotyped the variants rs2380205, rs1011970, rs704010, rs614367, and rs10995190 in 39 studies from the Breast Cancer Association Consortium (BCAC), involving 49,608 cases and 48,772 controls of predominantly European ancestry. Four of the variants showed clear evidence of association ($P < 3 \times 10^{-9}$) and weak evidence was observed for rs2380205 ($P = 0.06$). The strongest evidence was obtained for rs614367, located on 11q13 (per-allele odds ratio 1.21, $P = 4 \times 10^{-39}$). The association for rs614367 was specific to estrogen receptor (ER)-positive disease and strongest for ER plus progesterone receptor (PR)-positive breast cancer, whereas the associations for the other three loci did not differ by tumor subtype.