Influence of ABO blood group and Rhesus factor on breast cancer risk: A meta-analysis of 9665 breast cancer patients and 244,768 controls.


Source
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Abstract
AIM:
Blood group is an important risk factor for some malignancies, including pancreatic and stomach cancer. However, it is unclear whether the risk of breast cancer is higher in any specific ABO blood type.

METHODS:
We searched the electronic database of PubMed, EMBASE, China National Knowledge Infrastructure and the VIP Chinese Journal of Science and Technology for case-control studies about blood type and breast cancer incidence, and a meta-analysis was conducted.

RESULTS:
Fourteen studies were eligible for assessment on the association of breast cancer with different blood types, including 9665 breast cancer patients and 244,768 controls. Relative to blood type O, women with blood type A (odds ratio (OR) = 1.115, 95% confidence interval (CI) 0.992-1.254), B (OR = 0.983, 95% CI 0.915-1.056) and AB (OR = 1.042, 95% CI 0.881-1.231) had the same breast cancer risk. The risk for women with Rhesus-positive (Rh+) was the same as those with Rh-negative (Rh-) (OR = 0.948, 95% CI 0.667-1.348). Among Caucasians, the OR of blood type A was 1.066 (95% CI, 1.001-1.134, P = 0.522 for heterogeneity).

CONCLUSION:
This meta-analysis suggests Caucasians with blood type A may have a higher risk of breast cancer than other Caucasians. No association was found in any other blood type or any other population. Similarly, the Rh factor had no association with the risk of breast cancer.

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