

[Cancer Lett.](#) 2010 Mar 27. [Epub ahead of print]

Interaction between ADH1C Arg(272)Gln and alcohol intake in relation to breast cancer risk suggests that ethanol is the causal factor in alcohol related breast cancer.

[Benzon Larsen S](#) , [Vogel U](#) , [Christensen J](#) , [Hansen RD](#) , [Wallin H](#) , [Overvad K](#) , [Tjønneland A](#) , [Tolsstrup J](#)

National Research Centre for the Working Environment, Copenhagen, Denmark; Institute of Cancer Epidemiology, Danish Cancer Society, Copenhagen, Denmark; Institute of Science, Systems and Models, Roskilde University, Roskilde, Denmark.

Abstract

Alcohol is a risk factor for breast cancer. We wanted to determine if ADH polymorphisms which modify the rate of ethanol oxidation to acetaldehyde, were associated with breast cancer risk. We matched 809 postmenopausal breast cancer cases with 809 controls, nested within the prospective Diet, Cancer and Health study. Among variant allele carriers of ADH1C Arg(272)Gln, alcohol intake increased the risk of breast cancer with 14% (95% CI: 1.04-1.24) per 10g alcohol/day, but not among homozygous wild type carriers (p for interaction=0.06). Thus, slow oxidation of ethanol seemed to be associated with breast cancer risk. Copyright © 2010 Elsevier Ireland Ltd. All rights reserved.

PMID: 20350778 [PubMed - as supplied by publisher]

