

The article on polymorphism of the gene critical thinking examples

[Science](#), [Genetics](#)



The hypothesis of the research is brilliant in that the role played by genetic factors in peptic ulcer pathogenesis is not clearly understood. This is despite the fact that peptic ulcers have caused many deaths across the globe.

However, the research background does not use past studies to indicate that there is a correlation between C3435T polymorphism of the ABCB1 gene and susceptibility to peptic ulcers. Therefore, the research background does not link well with the research hypothesis.

The research methodology shows that the research subjects are drawn from various ages, and both genders are well represented. Genotype distribution shows no distortion from the Hardy-Weinberg rule, suggesting that the sampling was representative of the population under investigation. However, research methodology adopted in the study does not give a word about selection of the study participants. Quantitative research requires research subjects to be selected randomly. This undermines the generalization of the study findings to the wider population.

Since the research hypothesis investigates genetic susceptibility to peptic ulcers, the control group participants should have been selected from family members close to the research subjects. This is the standard procedure of case control studies. However, selection of the control group participants does not indicate that they were related to the research subjects.

Although quantitative research methods were used in the research, application of the study findings to the greater population is questionable due to the issues raised above. Moreover, information regarding past medical history was not made. Therefore, a relationship between past

exposures to a causal agent cannot be determined. This is a substantial drawback for the research since data concerning the exposure to carcinogens for both patients and the control group could have given the findings greater reliability.

Bibliography

Salagacka, A., Bartczak, M., Żebrowska, M., Jazdyk, M., Balcerczak, M., Janiuk, R., et al. (2011). C3435T polymorphism of the ABCB1 gene: Impact on genetic susceptibility to peptic ulcers. Institute of pharmacology Polish Academy of Sciences , pp. 992-998.