

MTRR polymorphism and the risk for colorectal and breast cancer in romanian patients - a preliminary study

T. Burcoş¹, M. Toma², M. Stavarachi², D. Cimponeriu², P. Apostol², E. Popa¹, S. Stănilescu¹, I. Popa¹, I. Radu², C. Serafinceanu⁴, N. Panduru⁴, L. Belușică³, L. Gavrilă²

¹Surgical Departament, Colțea Hospital, Bucharest, Romania

²Human Genetics and Molecular Diagnostic Laboratory, Institute of Genetics, University of Bucharest, Romania

³Surgical Departament, Cantacuzino Hospital, Bucharest, Romania

⁴N. Paulescu Institute, Bucharest, Romania

Abstract

Background: The risk of colorectal cancer (CRC) and breast cancer (BC) is influenced by polymorphisms located in the genes encoding enzymes of the folate pathway. The aim of this study was to evaluate if A66G MTRR (rs1801394) polymorphism is involved in predisposition for colorectal and breast carcinogenesis in Romanian patients.

Materials and Methods: In the present case-control study, 300 individuals divide in four groups: sporadic CRC patients (n=120), control CRC (n=60), BC patients (n=60) and control BC (n=60), were genotyped by PCR-RFLP method.

Results: Frequency of genotype AA was 11.7% in CRC control and 5% respectively in BC control. For cancer groups the frequency of genotype AA was 9.2% in CRC and 0% in BC.

Conclusions: Study results do not demonstrate an association between A66G MTRR polymorphism and CRC or BC in Romanian patients.

Key words: MTRR polymorphism, colorectal cancer, breast cancer, PCR-RFLP

Correspondență: Mihai Toma

Human Genetics and Molecular Diagnostic Laboratory, Institute of Genetics, University of Bucharest
1-3 Intrarea Portocalelor Str., District 6, 060101 Bucharest, Romania
tel.: 0040213181576, fax: 0040213181565
e-mail: iahim_t@yahoo.com