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## Identification of CYP1A1 (3801T/C) Gene Polymorphism in Invasive Breast Carcinoma

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**Abstract :** Breast cancer is still the biggest health program in the world. In Indonesia, until 2016 was the most malignancy found in 10 years period. Cytochrome P450 (CYP1A1) is involved in the metabolism of both environmental carcinogens and oestrogen. Its polymorphism may contribute to individual susceptibility to breast cancer. The aim of this study is to identify the frequency and distribution of CYP1A1 (3801T/C) gene polymorphism in invasive breast carcinoma. This cross-sectional descriptive study was conducted in Department of Anatomical Pathology, University of Sumatera Utara and H. Adam Malik Hospital Medan with 46 samples of invasive breast carcinoma. CYP1A1 gene polymorphism (3801T/C) was analyzed using PCR-RFLP method followed by gel electrophoresis. CYP1A1 (3801T/C) polymorphism in invasive breast cancer were 52,2% heterozygot T/C, 39,1%, wild-types T/T and 8,7% homozygot C/C. In both invasive breast carcinoma non-specific and specific type, heterozygote T/C genotype was more often found (54,3% and 72,7%) respectively. Therefore, individual who has polymorphism CYP1A1 (3801T/C) heterozygote T/C genotype has a tendency to suffer invasive breast carcinoma.

Keywords : Polymorphisme, gene CYP1A1, Invasive Breast Carcinoma.

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