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제 목	국문	TGF-β1, TNF-β & IGF-1의 유전적 다형성과 유방암				
	영문	Genetic polymorphisms of TGF-β1, TNF-β & IGF-1 and and breast cancer				
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1. 연구목적

A case-control study was performed to assess the potential influences of genetic polymorphisms of TGF- β 1, TNF- β and IGF-1 on the risk of breast cancer in Korean women.

2. 연구방법

Histologically confirmed breast cancer cases (n=513) and controls (n=395) with no present or previous history of cancer were recruited from three teaching hospitals in Seoul (1994-2001). Genotypes of TGF-β1 Leu10Pro, TNF-β A252G and IGF-1 T2502G were determined by polymerase chain reaction with confronting two-pair primers (CTPP). Adjusted odds ratios and 95% confidence intervals were estimated by unconditional logistic regression analysis.

3. 연구결과

The genotype frequencies of TGF-β1 Leu/Leu, Leu/Pro, Pro/Pro were 23.5%, 54.6%, 21.9% in cases and 29.2%, 47.6%, 23.3% in controls. Those women with TGF-β1 Leu/Pro or Pro/Pro genotypes were at the higher risk of breast cancer with borderline significance (OR=1.31, 95% CI=0.96-1.79). The genotype frequencies of TNF-β AA, AG, GG were 32.2%, 48.6%, 19.2% in cases and 36.5%, 43.8%, 19.7% in controls. The genotype frequencies of IGF-1 TT, TG, GG were 60.0%, 33.4%, 6.8% in cases and 58.3%, 35.8%, 5.9% in controls. TNF-β AG or GG and IGF-1 TG or GG genotypes were not associated with breast cancer risk (OR=1.12, 95 OR=0.95, 95% CI=0.72-1.25, respectively). For those women with TGF-β1 Leu/Pro or Pro/Pro genotypes and family history of breast cancer, the risk of breast cancer increased by 4.4 fold compared with those with the other genotype and no family history of

breast cancer (OR=4.4, 95% CI=1.94-10.0). For those women with TNF-B AG or GG genotypes and family history of breast cancer, the risk of breast cancer increased by 3.5 fold (OR=3.5, 95% CI=1.52-7.82). For those women with IGF-1 TG or GG genotypes and family history of breast cancer, the risk of breast cancer also significantly increased (OR=5.9, 95% CI=1.31-26.3) 4. 고찰 Our results suggest that TGF-\$1 genetic polymorphism play an important role in breast cancer development in Korean women, and that there are interactive effects of genetic polymorphisms of TGF-β1, TNF-β & IGF-1 and family history of breast cancer.