Evaluation of HER2/neu gene amplification frequency in patients with gastric cancer using MLPA method

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Abstract

Background and aims: *Gastric malignancies have the fourth place among the most prevalent cancers. In many cancers, overexpressing of HER2/neu gene has been observed with a poor prediction. Up to now, there is a little information about the duplication of HER2/neu gene in gastric cancer using MLPA method. The present study aimed to investigate the frequency of mutations resulting from amplification of HER2/neu gene using MLPA technique in the patients with gastric cancer.*

Methods: *This is a descriptive study which carried out on 60 samples of tissue block obtained from gastric cancer patients with endoscopic and surgical history between 1376-1391 years in Afzalipoor health centers to investigate the deletion and insertion mutations in HER2/neu.*

Results: *The study population consisted of* 73.3% females and 26.7% males with the mean age of 62.71. *Overall, the frequency of the amplification of HER2/neu gene in the low and high levels was 10% and 3.3%, respectively.*

Conclusion: *It seems that, the amplification frequency of HER2/neu gene in men is more than women. However, it is recommended to conduct further studies.*

Key words*: amplification, gene, HER2/neu, gastric cancer, MLPA method*