

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

***Mohammad Reza Lashkarizadeh<sup>1</sup>, Mohammad Reza Bazrafshani<sup>2</sup>, Ali Izadi<sup>3\*</sup>, Fatemesadat Hosseini<sup>4</sup>***

<sup>1</sup>Associate Professor of surgery, Afzalipour of Medical School, Kerman university of Medical Sciences, Kerman, Iran

<sup>2</sup>Assistant Professor of surgery, Afzalipour of Medical School, Kerman university of Medical Sciences, Kerman, Iran

<sup>3</sup>Student of General Surgery, Afzalipour of Medical School, Kerman university of Medical Sciences, Kerman, Iran

<sup>4</sup>MSc Student of Medical Genetic, Afzalipour of Medical School, Kerman university of Medical Sciences, Kerman, Iran

***\*Corresponding address: Kerman, Kerman university of Medical Sciences, Afzalipour of Medical School  
E.mail: dr.ali.izadi4134@gmail.com***

### ***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 Afzalipour 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