

## HER-2/neu Expression in Resectable Gastric Cancer and its Relationship with Histopathologic Subtype, Grade, and Stage

\*<sup>1</sup>H.R. Raziee, <sup>1</sup>A. Taghizadeh Kermani, <sup>2</sup>K. Ghaffar zadegan, <sup>3</sup>M. Taghi Shakeri,  
<sup>1</sup>M.R. Ghavamnasiri

### Abstract

#### Objective

HER-2/neu is overexpressed in diverse human cancers. Studies suggest a role of this protein in tumor progression by specifically promoting the invasive capacity of tumor cells. Our aim was to evaluate HER-2/neu overexpression in resectable gastric cancer in 100 North-Eastern Iranian patients and to assess the relationship between its expression and clinicopathologic tumor parameters.

#### Materials and Methods

Indirect immunostaining was employed to evaluate the expression of this receptor in formalin-fixed paraffin-embedded tissue samples.

#### Results

HER-2/neu overexpression was present in 26 (26%) of 100 gastric carcinomas. This was significantly more common in the intestinal type of gastric cancer (33%) compared to diffuse (5%) or the mixed type (0%). HER-2/neu overexpression was also more common in well-differentiated gastric cancers versus other grades (41% vs 7%). However, it was not associated with gender, age at diagnosis or stage.

#### Conclusion

HER-2/neu overexpression is common in gastric carcinoma and more prevalent in intestinal and well-differentiated subtypes. There is no correlation between HER-2/neu expression and tumor stage. The relatively high percentage of HER-2/neu positive tumors may provide a useful target for immunotherapy of these cancers.

**Keywords:** HER-2/neu, Gastric cancer, Grade, Immunohistochemistry, Lauren's classification.

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1- Radiation Oncology Department, Cancer Research Center, Omid Hospital, Mashhad University of Medical Sciences (MUMS), Mashhad, Iran

\*Corresponding author: Tel: +98-511- 8430634; Fax: +98511 8428622; email: razieehr@mums.ac.ir  
2- Pathology Department, Cancer Research Center, Omid Hospital, MUMS, Mashhad, Iran

3- Biostatistics Department, MUMS, Mashhad, Iran