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## Evaluation of receptor for advanced glycation end products (RAGE) in *Helicobacter pylori* associated and non-associated gastric carcinoma

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**Purpose:** Gastric cancer is one of the most common malignancies and is the second most common cause of death from cancer worldwide. *Helicobacter pylori* play an important role in the pathogenesis of chronic gastritis and gastric adenocarcinoma. Receptor for Advanced Glycation End products (RAGE) is a pattern recognition receptor that binds multiple ligands derived from a damaged cell environment and plays a critical role in promoting the intestinal tumorigenesis. Therefore, the aim of this study was to evaluate the expression of RAGE protein in gastric carcinomas either associated with *Helicobacter pylori* infestation or not.

**Methods:** Cases of gastric carcinoma, intestinal metaplasia and chronic gastritis were included in this study. Immunohistochemical staining for RAGE was done and its expression was evaluated and discussed.

**Results:** RAGE was not expressed in any case of gastritis or signet-ring gastric carcinomas, however, it was expressed in most cases of intestinal metaplasia. In gastric adenocarcinoma the percentage and score of RAGE cellular expression were correlated inversely with the grade of neoplasia, while RAGE intensity was higher in cases with positive lymph node metastases. Our results show no correlation between RAGE expression and *H. pylori* infection either in chronic gastritis or malignant cases.

**Conclusions:** As RAGE expression was identified as a marker for target therapy in different malignancies, it is recommended to study the most reliable RAGE expression indicator in gastric carcinoma to select the promising cases responding to therapy.

### Biography

Tarek Aboushousha has completed his MD in Pathology from Cairo University School of Medicine. He is the Ex-Director of Pathology Department, Theodor Bilharz Research Institute, a governmental health-research organization. He has published more than 30 papers in reputed journals and has been serving as a Reviewer in international medical journals.

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