

Expression of cell adhesion molecule CD44 in gastric adenocarcinoma and its prognostic importance

Ghaffarzadehgan, K.^a, Jafarzadeh, M.^b, Raziee, H.R.^c, Sima, H.R.^{de}, Esmaili-Shandiz, E.^b, Hosseinnazhad, H.^{bf}, Taghizadeh-Kermani, A.^c, Moaven, O.^b, Bahrani, M.^b

^a Department of Pathology, **Mashhad University Cancer Research Center**, Omid Oncology Hospital, **Mashhad**, Iran

^b Gastric Cancer Research Group, **Mashhad University of Medical Sciences**, 91 Jami Street, **Mashhad**, Iran

^c Department of Radiation Oncology, **Mashhad University Cancer Research Center**, **Mashhad University of Medical Sciences**, **Mashhad**, Iran

^d Department of Internal Medicine, Imam Reza Hospital, **Mashhad University of Medical Sciences**, **Mashhad**, Iran

^e Department of Medicine, The Mount Sinai **Medical Center**, New York, NY 10029, United States

^f Young Researchers' Club, **Medical School of Islamic, Azad University of Mashhad**, **Mashhad**, Iran

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Abstract

Aim: To evaluate the relation of cluster of differentiation 44 (CD44) expression with clinicopathological features of gastric adenocarcinoma, and also its effect on prognosis with an emphasis on the differences between intestinal and diffuse types. **Methods:** From 2000 to 2006, 100 patients with gastric adenocarcinoma, who had undergone total or subtotal gastrectomy without any prior treatment, were studied. **Haematoxylin & eosin (HE)** staining was used for histological evaluation, including the type (Lauren's classification) and grading of the tumor. The expression of CD44 in the gastric adenocarcinoma mucosa and the adjacent mucosa were determined by immunohistochemistry. The survival analysis was obtained using the Kaplan-Meier test. **Results:** Of 100 patients, 44 (44%) patients were male. The tumors were categorized as intestinal type (54%) or diffuse type (46%). Sixty-five percent of patients were CD44-positive. CD44 expression was not detected in normal gastric mucosa. Rather, CD44 was more commonly expressed in the intestinal subtype ($P = 0.002$). A significant relation was seen between the grade of tumor and the expression of CD44 ($P = 0.014$). The survival analysis showed a poor prognosis of patients with CD44-positive tumors ($P = 0.008$); and this was more prominent in the intestinal ($P = 0.001$) rather than diffuse type. **Conclusion:** Cell adhesion molecule CD44 is highly expressed in gastric adenocarcinoma. CD44 expression is correlated with a poor prognosis in patients with the intestinal type of gastric adenocarcinoma. CD44 can, therefore, be utilized as a prognostic marker for this group of patients. © 2018 The WJG Press. All rights reserved.

Author keywords

Cell adhesion molecules; Cluster of differentiation 44; Gastric cancer; Immunohistochemistry; Survival rate

Indexed Keywords

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