

**Expression of CD86 and increased infiltration
of NK cells are associated with Helicobacter
pylori-dependent state of early stage
high-grade gastric MALT lymphoma**

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摘要

Abstract

AIM: A high percentage of early-stage high-grade gastric mucosa-associated lymphoid tissue (MALT) lymphomas remain Helicobacter pylori(H pylori)-dependent. However,unlike their low-grade counterparts, high-grade gastric MALT lymphomas may progress rapidly if unresponsive to H pylori eradication. It is mandatory to identify markers that may predict the H pylori-dependent status of these tumors. Proliferation of MALT lymphoma cells depends on cognate help and cell-to-cell contact of H pylori-specific intratumoral T-cells. To examine whether the expression of co-stimulatory marker CD86 (B7.2) and the infiltration of CD56 (+) natural killer (NK) cells can be useful markers to predict Hpylori-dependent status of high-grade gastric MALT lymphoma.METHODS: Lymphoma biopsies from 26 patients who had participated in a prospective study of H pylori-eradication for stage IE high-grade gastric MALT lymphomas were evaluated. Tumors that resolved to Wotherspoon grade II or less after H pylorieradication were classified as H pyloridependent; others were classified as H pylori-independent.The infiltration of NK cells and the expression of CD86 in pre-treatment paraffin-embedded lymphoma tissues were determined by immunohistochemistry.RESULTS: There were 16 H pylori-dependent and 10H pylori-independent cases. CD86 expression was detected in 11 (68.8%) of 16 Hpylori-dependent cases but in none of 10 Hpylori-independent cases (P = 0.001).H pylori-dependent high-grade gastric MALT lymphomas contained significantly higher numbers of CD56 (+) NK cells than H pylori-independent cases ($2.8\pm 1.4\%$ vs $1.1\pm 0.8\%$; P = 0.003). CD86 positive MALT lymphomas also showed significantly increased infiltration of CD56 (+)NK cells compared to CD86-negative cases ($2.9\pm 1.1\%$

vs $1.4 \pm 1.3\%$; $P = 0.005$). CONCLUSION: These results suggest that the expression of co-stimulatory marker CD86 and the increased infiltration of NK cells are associated with H pylori-dependent state of early-stage high-grade gastric MALT lymphomas