

Study of histopathological typing of chronic atrophic gastritis

Yang-Kun Wang, Nai-Xu Ma, Zhi-Bo Zhang

Yang-Kun Wang, Nai-Xu Ma, Zhi-Bo Zhang, Department of pathology, Chinese PLA 91 Hospital, Yanzhou 272000, Shandong Province, China

Author contributions: All authors contributed equally to the work.

Correspondence to: Dr. Yang-Kun Wang, Department of pathology, Chinese PLA 91 Hospital, Yanzhou 272000, Shandong Province, China

Received: July 14, 1998

Revised: August 15, 1998

Accepted: September 10, 1998

Published online: October 15, 1998

Abstract

AIM: One hundred and eighty-four cases of chronic atrophic gastritis (CAG) with gastric mucosa biopsy specimen have been studied. Documents that put forward the criterion of the diagnosis of the CAG have been consulted. According to the degree of glandular atrophy, hyperplasia, expansion, metaplasia and epithelial dysplasia, the nature and amount of mucus, and the number of inflammatory invasive cells, CAG can be divided into four type: the simple types, the hyperplasia type, the metaplasia type and the dysplasia type.

METHODS: Of the 184 CGA cases 113 were male and 71 female. They were divided into five age-groups: (a) ≤ 40 , 40, 41-50, 51-60, 61-70, ≥ 71 . Tissues were fixed in 10% neutral buffered formalin, routinely processed through serial concentrations of ethanol and embedded in paraffin.

RESULTS: The simple type: glandular atrophy shows that in the mild cases atrophy formed 1/3 of the intrinsic glands and in severe cases atrophy formed 2/3 of the intrinsic glands. The size of the gland becomes smaller and its number becomes less and hyperplasia of epithelial cells in mild. There is a tiny simple glandular expansion but no metaplasia can be seen. The invasion of chronic inflammatory cells may be either mild or severe. There is no apparent change in the nature of the mucus but there is a decrease of the neutral mucus. The hyperplasia type: glandular atrophy accompanies glandular hyperplasia. Intrinsic gland displays a glandular concentration. No gland of metaplasia and dysplasia can be seen. The invasion of chronic inflammatory cells may be either mild or severe. There is no change in the nature of mucus, Neutral mucus decreases in atrophic glands but increases in hyperplasia glands. The metaplasia type: the outstanding characteristics of this

type is metaplasia (including intestinal metaplasia, colonal metaplasia and pseudopyloric metaplasia) except meagre mucosa and glandular atrophy. It may or may not be accompanied with epithelial dysplasia. The invasion of chronic inflammatory cells may be mild or severe. The nature of mucus may be changed to mucus of salivary acid and/or mucus of sulphuric acid, and there is a reduction in neutral mucus. The dysplasia type: mucosa meagre and glandular atrophy become severe. More than 2/3 of the intrinsic glands become glandular atrophy. The glandular atrophy forms compensatory hyperplasia and the back-back or the common wall, Dysplastic glandular hyperplasia and dysplastic glandular expansion usually appear, Cystic glandular or adenomatous dysplasia mentioned in our former study also appears. There is a heavy invasion of inflammatory cells and most of them are lymphocytes. The nature of mucus may be salivary acid and/or sulphuric acid, with reduced neutral mucus. It may be accompanied by mild metaplasia.

CONCLUSION: The results indicate that the rate of CAG malignant change depends mainly on the change of histopathology. Most cases of the simple type affect people over sixty. It is comparatively stable in morphology and may be regarded as a degeneration with age in inflammatory changes. It is only a change in quantity in regard to glandular atrophy, diminished function and reduction of mucus secretion. The majority of the hyperplasia type are people at forty to sixty years old. The pathological changes are mainly a change in quantity. Relief of symptoms or cure can be achieved after aggressive treatment. The metaplasia type increases with age, especially among those who are over 70 years old. The mucus secretion has not only quantitative changes but also qualitative changes. A long-term follow-up may be conducted due to its dissipative difficulty and tendency of aggravation in pathological change. CAG of the dysplasia type is mostly developed from the other types mentioned above. Glandular atrophy forms compensatory hyperplasia and dysplasia. There is a light positive reaction on the monoclonal antibodies of gastric cancer. A close follow-up should be conducted because its rate of malignant change is 5.6%.

Key words: Gastritis, atrophic/pathology; Gastritis, a trophic/diagnosis; Gastric mucosa/pathology; Chronic diseases

© **The Author(s) 1998.** Published by Baishideng Publishing Group Inc. All rights reserved.

Wang YK, Ma NX, Zhang ZB. Study of histopathological typing of chronic atrophic gastritis. *World J Gastroenterol* 1998; 4(Suppl2): 132 Available from: URL: <http://www.wjgnet.com/1007-9327/full/v4/iSuppl2/132.htm> DOI: <http://dx.doi.org/10.3748/wjg.v4.iSuppl2.132>

E- Editor: Li RF



Published by **Baishideng Publishing Group Inc**
8226 Regency Drive, Pleasanton, CA 94588, USA
Telephone: +1-925-223-8242
Fax: +1-925-223-8243
E-mail: bpgoffice@wjgnet.com
Help Desk: <http://www.wjgnet.com/esps/helpdesk.aspx>
<http://www.wjgnet.com>

