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ICD-10 Classification of Gastritis
A Time to Change?

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Abstract Helicobacter pylori (HP) has been newly listed in the revised ICD-10 classification (2003). However, ICD classification of gastritis has not been changed and the role of HP infection on chronic gastritis has been neglected. It is well known that HP-induced chronic gastritis increases the risks of more serious diseases such as peptic ulcer and gastric cancer. Therefore, in order to assess the magnitude of HP infection on the global health problems more appropriately, current ICD-10 classification of gastritis should be revised to a new system incorporating etiologic factors such as HP.

Introduction

In the revised version of ICD-10 (2003) Helicobacter pylori (HP) infection has been newly listed (B96.8) as a cause of disease classified elsewhere. HP infection is known to affect almost half of the world population. HP infection acquired in the young age usually persists throughout life and causes chronic gastritis in consequence. Some of the infected patients develop more serious diseases such as peptic ulcer diseases (PUD) and/or gastric cancer (GC). Therefore, eradication therapy of HP is now established as the primary therapy for PUD with positive HP. Furthermore, it has been documented that eradication of HP may help preventing GC. Considering the magnitude of HP infection on the global health problems, more accurate statistical evaluation on HP infection should be made possible through proper coding system of ICD. However, current ICD-10 classification of gastritis (K29) (Table 1) seems obsolete due to lack of consideration of HP infection。 Furthermore, the principle of the classification is confusing; i. e. coding was made either by cause or by consequence. In this study, we try to point out problems in the present system when dealing with HP infection as a unified cause of gastritis. We also compare current ICD-10 classification of gastritis with those proposed in the academic society, and a proposal for the new classification is made.

Table 1. ICD-10 (2003) Classification Gastritis and duodenitis (K29)

K29.0 Acute haemorrhagic gastritis
K29.1 Other acute gastritis
K29.2 Alcoholic gastritis
K29.3 Chronic superficial gastritis
K29.3 Chronic atrophic gastritis
K29.5 Chronic gastritis, unspecified
K29.6 Other gastritis
K29.7 Gastritis, unspecified
K29.8 Duodenitis
K29.9 Gastroduodenitis

Methods & Materials

The literature reporting various forms of gastritis caused by HP infection was searched with the PubMed (1990-2004) as a data base using HP infection and gastritis as key words. Literature search on the “classification of gastritis” was also performed with PubMed (1990-2004).
In addition to this, representative publications from the academic society of gastroenterology such as the American Gastroenterogical Association (AGA) and textbooks of gastroenterology and pathology were surveyed for the classification of gastritis.
Based on these literature, we assessed whether etiologic causes were adopted as a basis of classification system of gastritis. Furthermore, we assessed whether several classification systems agree or disagree in the framework of etiologic classification.

Table 2. Classification of Gastritis in the Literature

Classification of Gastritis	HP as a cause of gastritis	Forms of gastritis caused by HP (K code assignment)
Updated Sydney System (Am.J. Surg. Pathol. 1996)	Yes	Nonatrophic gastritis (K29.3) Multifocal atrophic gastritis (K29.4) Lymphocytic gastritis? (K29.6)
Pathology & Pathophysiology of the Upper Gastrointestinal Tract (AGA, 2000)	Yes	Acute infectious gastritis (K29.0/29.1) Chronic superficial gastritis (K29.3) Metaplastic atrophic gastritis (K29.4)
Textbook of Gastroenterology 3rd Ed. (Yamada) Lippincott Williams & Wilkins 2003	Yes	Nonatrophic gastritis (K29.3) Multifocal atrophic gastritis (K29.4) Special forms Autoimmune gastritis? (K29.4/29.5) Lymphocytic gastritis? (K29.6)
Morson & Dawson's Gastrointestinal Pathology 4th Ed. Blackwell Sci. 2003	Yes	Acute gastritis (K29.0/29.1) Chronic gastritis Giant fold gastritis (K29.6) Atrophic gastritis (K29.4) Intestinal Metaplasia (K29.5?) Autoimmune gastritis? (K29.4/29.5) Lymphocytic gastritis? (K29.6)

Results

In the first survey, HP infection presents as diverse forms of gastritis (Table 2), depending on the time of acquisition, host response, food, and length of the infection. Therefore, it is difficult to collect accurate statistics on HP-induced gastritis and evaluate the influence of HP infection on health under current classification system. Several classification systems in the era of HP were identified. The most representative and widely adopted classification systems is the updated version of the Sydney System. AGA and other representative textbooks also proposed a new classification system. Essentially, etiology-based classification was adopted for gastritis in these literatures (Table 2).

. Therefore, current ICD-10 system seems to be inappropriate to collect meaningful data on gastritis caused by HP infection.

Conclusions

1. HP infection is the most important cause of gastritis strongly associated with more serious diseases such as gastric cancer.
2. HP infection manifest itself as a various forms of gastritis that can be coded separately under the current classification system.
3. Considering the magnitude of the medical and economic burden caused by HP infection, the proper revision of gastritis based on the etiology is urgently needed to evaluate the real problems of HP infection and to take measures against it.
4. A new coding system for gastritis based on the etiology should be formulated.