

# C-19

## The Modified Subtype Classification for Gastric Neuroendocrine Neoplasms

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**BACKGROUND:** The definitions of the 3 types of gastric neuroendocrine neoplasms (g-NENs) in the European Society of Neuroendocrine Tumours (ENETS) Guidelines from 2012 and 2016 are ambiguous and controversial, so a modified four-type classification system for g-NENs has been proposed in China.

**METHODS:** we analyzed the clinicopathological features and prognosis of g-NENs using a modified subtype classification in China. A total of 487 cases with g-NENs were collected from ten hospitals in China, from March 2009 to January 2018. The criteria of subtype classification for g-NENs are as follows: well-differentiated g-NENs are divided into 3 types: type 1, with hypergastrinemia and achlorhydria, are associated with autoimmune gastritis; type 2, with hypergastrinemia and Zollinger-Ellison syndrome, are related with gastrinoma or multiple endocrine neoplasia type 1; type 3 are sporadic disease with normal gastrin and gastric acid secretion; poorly-differentiated neuroendocrine

carcinoma and mixed adenoneuroendocrine carcinoma belong to type 4. Data were analyzed by univariate and multivariate analysis for evidence of patient survival.

**RESULTS:** Among the 487 g-NENs patients, there were 149 (30.6%) with type 1, 8 (1.6%) with type 2, 84 (17.3%) with type 3 and 246 (50.5%) with type 4. The 5-year overall survival rates were 98.7%, 100%, 65.9% and 32.2% respectively. neuroendocrine carcinoma G3, distant metastasis, type 4 tumours and chemotherapy were independent prognostic factors among patients with g-NENs.

**CONCLUSION:** G-NENs were heterogeneous, ranging from indolent to highly malignant biological behaviour. Patients with type 1 and type 2 had a good prognosis, while those with type 3 had a worse prognosis, and those with type 4 had the worst prognosis. The modified Four-type classification is useful for management and prognostic evaluation of g-NENs.