

Type I (70%)

Type II (10%)

Type III (20%)

Clinical Features

- asymptomatic
- small
- multiple
- found in fundus and body
- mostly grade 1
- malignant behaviour/ metastasis rare
- caused by achlorhydric hypergastrinaemia associated with pernicious anaemia and chronic atrophic gastritis

- rare
- often small and multiple
- grade 1 or 2
- caused by hypergastrinaemia due to a gastrinoma (ZES) often as part of MEN-1
- peptic ulcers
- +/-diarrhoea

- single,
- often > 2 cms,
- may be ulcerated
- usually grade 3 but some may be lower grade
- not associated with hypergastrinaemia
- malignant behaviour/ metastatic disease common

Diagnosis

- vitamin B12 (usually low)
- Hb and iron studies (IDA common)
- anti-parietal cell antibodies (usually positive)
- fasting serum gastrin off PPI therapy (high)
- +/- gastric pH measurement during endoscopic assessment (pH>4)

- vitamin B12 (usually normal)
- Hb and iron studies (IDA common)
- anti-parietal cell antibodies (negative)
- fasting serum gastrin off PPI therapy (high) : substitute H2RA for 7 days, or do not stop PPI if felt high risk of peptic ulceration
- +/- gastric pH measurement during endoscopic assessment (pH<2)

- biopsy
- full staging with CT (+/- somatostatin receptor scintigraphy)
- FDG-PET

Management

- biopsy several of largest polyps and background stomach
- consider removal of polyps > 10 mm in size (ESD or EMR), consider EUS and CT assessment prior to removal
- surveillance OGD and screening for adenocarcinoma – biopsy background mucosa for dysplasia - every 1-2 years
- Preferably stop PPIs– will further increase gastrin and little rationale for ongoing treatment

- PPI +/- somatostatin analogues
- identify and remove gastrinoma where possible
- manage gastric polyps> 1cm as per type 1 GNENs

- operable disease: surgical resection following principles of managing adenocarcinoma
- lower grade tumours with no loco-regional spread (EUS): endoscopic removal by ESD (possibly EMR) may be considered
- systemic therapies are required for inoperable disease, choice is dictated by grade e.g. platinum-based chemo for G3, SSRA +/- PRRT

Management of patients with Gastric Neuroendocrine Neoplasm

References

1. ENETs consensus management of patients with gastroduodenal neoplasms. Delle Fave et al. Neuroendocrinology 2012;95:74-87
2. The investigation and management of gastric neuroendocrine tumours. Basuroy R et al. AP&T 2014;39(10)1071-84

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