

Pathogenesis

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Historically, tumours arising from the neuroendocrine cells were referred to as 'karzinoide' (carcinoma-like) tumours by Oberndorfer. Now they are termed neuroendocrine tumours (NETs). NETs can be either benign or malignant. In the gastrointestinal tract, especially the small intestine, they secrete excess 5-HT, which is rapidly metabolised by the liver. In the presence of liver metastases, NET metastases secrete 5-HT into the IVC, avoiding hepatic first-pass metabolism and leading to symptoms of 5-HT excess, known as carcinoid syndrome. The cardinal features are sweating, flushing, bronchospasm and restrictive cardiomyopathy secondary to fibrotic right heart valvular disease (Hedinger syndrome). The overall incidence of GI-NETs is 2.5–5.0 per 100,000 people per year, with a much higher prevalence of 35 per 100,000. Their relative distribution in the gastrointestinal tract is shown in Table 57.6. Nikolai Kulchitsky, 1856–1925, Professor of Histology, Kharkov Imperial University, Ukraine. Siegfried Oberndorfer, 1876–1944, Professor of Pathology, Munich, Germany. Christoph Hedinger, 1917–1999, pathologist, Zurich, Germany.

tumours in different organs. Site Distribution (%) Lung 10 Stomach 5 Duodenum 2 Small bowel 25 Appendix 40 Colon 6 Rectum 15

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