Basic Introduction

Investigate for a gastroenteropancreatic (GEP-NET) neuroendocrine tumour

NeuroEndocrine Cancer Australia

Diagnosis

The diagnosis and localisation of a GEP-NET can be complex and protracted. Investigations and management is best directed by a physician who has experience with neuroendocrine tumours.

Here are some things to do in the investigation of a potential gastroenteropancreatic neuroendocrine tumour (GEP NET).

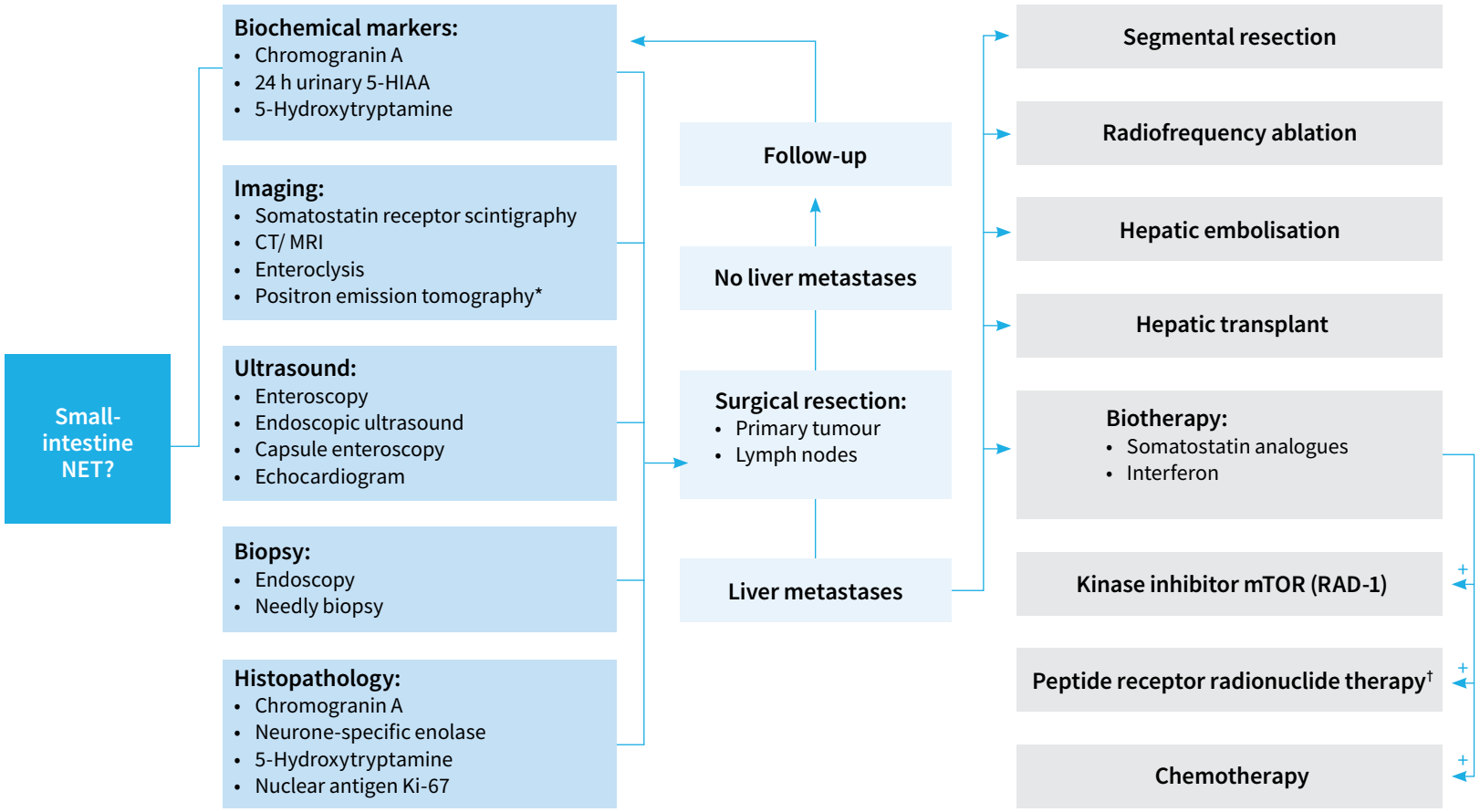
Blood:
Chromogranin A, plasma 5-HT

Urine:
24 hour urinary 5-HIAA

Imaging:
CT - Non contrast liver, arterial phase scan through the chest and liver, portal-venous of abdomen and pelvis with oral contrast

PET scan – gallium 68 labelled octreotate

Algorithm for the management of patients with suspected neuroendocrine tumours (NETs) of the small intestine



5-HIAA = 5-hydroxyindole-3-acetic acid. CT = computed tomography. MRI = magnetic resonance imaging. *^{11}C-labelled 5-hydroxytyptophan positron emission tomography. †Radioactive isotopes (^{111}Indium, ^{90}Yttrium or ^{177}Lutetium) linked to a somatostatin analogue specifically target tumour cells. **Column 1:** Biochemical and topographical studies to identify the neuroendocrine basis of the lesion, establish the primary location, and define metastases. **Columns 2-3:** Surgical resection of the primary tumour and, if technically feasible, ablation of hepatic metastases to <10% of hepatic volume. **Column 4**: Long-acting somatostatin analogues are given to ameliorate symptoms and /or inhibit tumour-cell proliferation. With evidence of disease progression, novel agents, including kinase inhibitors (eg, mTOR inhibitors)[5], antiangiogenic drugs (eg, bevacizumab), or peptide receptor radionuclide therapy should be considered. Chemotherapy is given for histological grade 2/3 lesions, or for neuroendocrine carcinomas or NETs with evidence of rapid progression.