

23 Insulinoma

Pathology

- Originates in the β -cells of the pancreatic islets.
- Around 90% of insulinomas are small single adenomas.
- Insulinomas associated with MEN I are multiple in 75% of cases.
- Around 10% of insulinomas are malignant.

Clinical features

- The clinical picture is defined by Whipple's triad:
 - symptoms and signs of hypoglycaemia occurring during fasting or exercise
 - at the time of symptoms, the blood glucose level is below 60 mg/dl
 - the symptoms are reversed by glucose administration.

Investigations

- Serum insulin:glucose ratio, which usually exceeds 1 in insulinoma patients.
- Localisation using selective venous sampling, angiography, CT and/or MRI.
- Intra-operative USS.
- Provocative tests.

Treatment

- Small benign lesions can be enucleated.
- Malignant lesions are treated by pancreatic resection (distal pancreatectomy or Whipple's operation). Stropozotocin is an effective chemotherapeutic agent.

Prognosis

- The median survival for malignant tumours is 5 years after curative resection.
- The median disease-free survival falls to 4 years after palliative resection.