



OUTCOME OF INSULINOMAS DIAGNOSED IN A TERTIARY ENDOCRINE CENTER

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BACKGROUND: Insulinomas, the most common functional neuroendocrine tumours of the pancreas, are usually sporadic, benign and solitary.

AIMS: To assess biochemical data, localization and treatment outcome of insulinomas diagnosed in a tertiary endocrine center.

PATIENTS and METHODS:

- 25 patients (14 F/11 M), aged 49.1 ± 14.1 years, diagnosed with insulinoma between 2000-2014 were retrospectively reviewed. Average body mass index = 30.4 ± 7.5 kg/m².
- 72-hour supervised fast was used for diagnosis of insulinoma (plasma glucose <40 mg/dL with simultaneous insulin level >6 μ U/mL).
- computed tomography (CT), magnetic resonance imaging, endoscopic ultrasonography and intra-operative ultrasonography were performed for tumour localization.

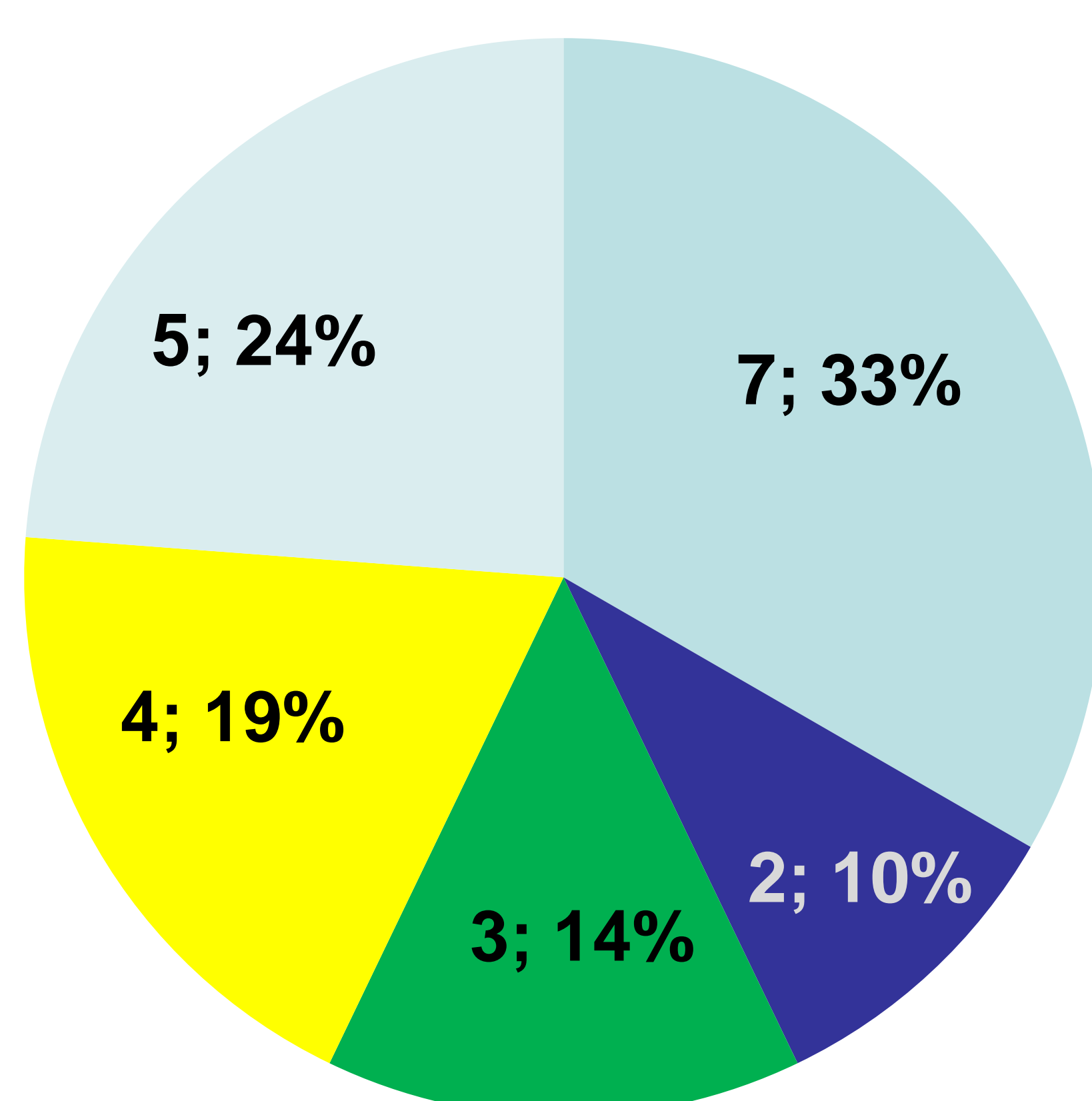
RESULTS: Median duration of hyperinsulinemia= 2 years;
Sporadic insulinomas : 23 patients (92%); MEN 1 syndrome: 2 patients (8%);
Hepatic metastases: 2 patients (8%).

Table 1. Biochemical and hormonal data during 72-hour fast

	Value	Percentiles (25 th ; 75 th)
Median duration (hours) to nadir glucose	8	4.25 ; 12.25
Glucose nadir (mg/dL)	30.9 ± 7.1	26.8 ; 36.2
Median insulinemia (μ U/mL) during nadir glucose	28	15.2 ; 67.2
Mean C peptide (ng/mL) during nadir glucose	2.6 ± 1.8	1.9 ; 3.5

Figure 1. Preoperative localization of insulinoma (n= 21 out of 25)

■ Cephalic ■ Uncinate process ■ Pancreatic neck
■ Pancreatic body ■ Pancreatic tail

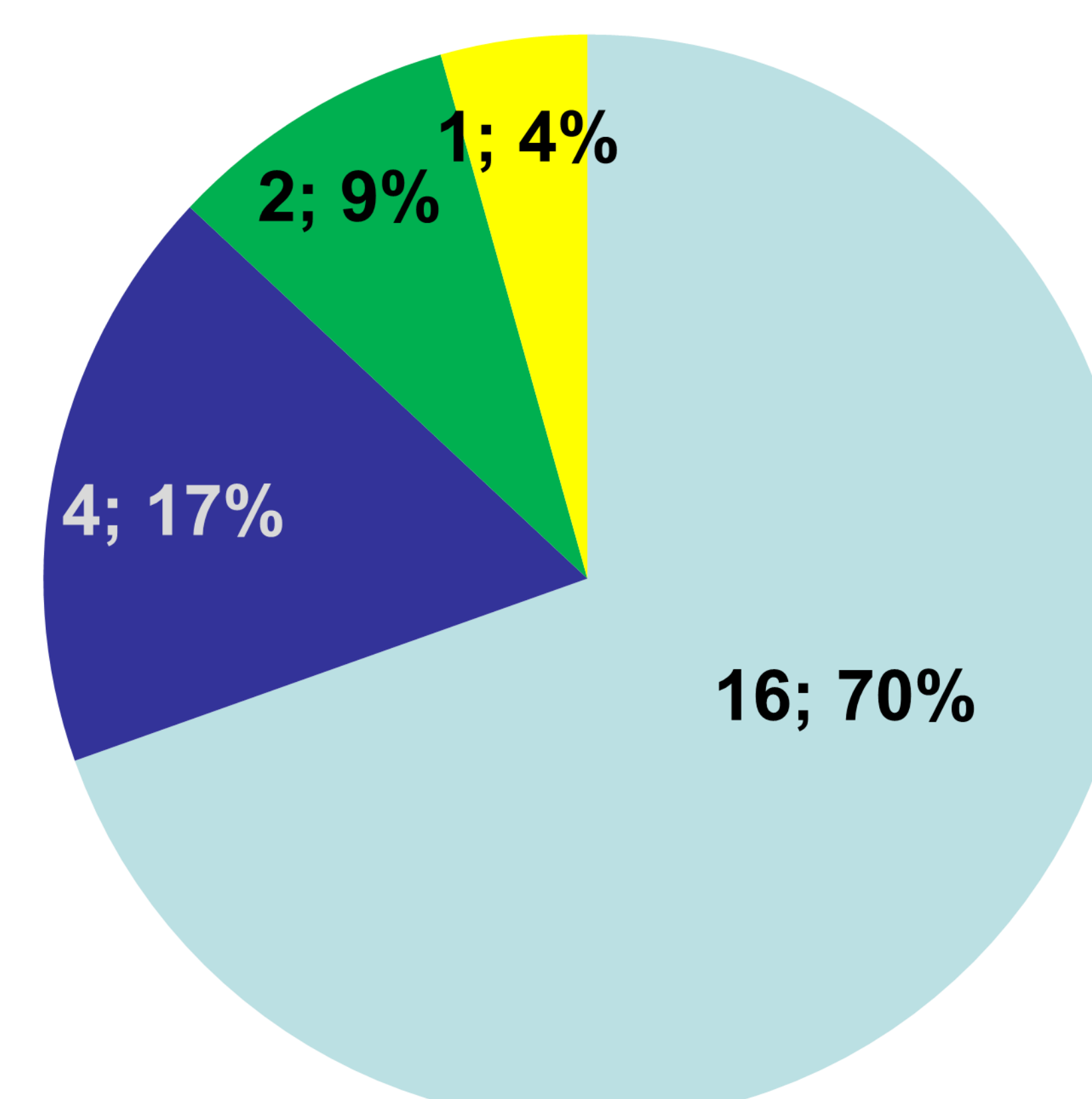


Mean tumour diameters: 22.3 ± 14.3 mm

Intraoperative ultrasound localization was necessary in 4 cases.

Figure 2. Therapeutic outcome

■ Cured after surgery ■ Uncured after surgery
■ Refused surgery ■ Surgery contraindicated



Surgery: enucleation / cephalic duodenopancreatectomy /distal pancreatectomy);

Medical treatment (diazoxide 200-300 mg/day or somatostatin analogues) were used in non-cured patients to control hypoglycemia.

CONCLUSION: Partial pancreatectomy or enucleation provided a good cure rate in patients with pre-operative localized insulinomas.