

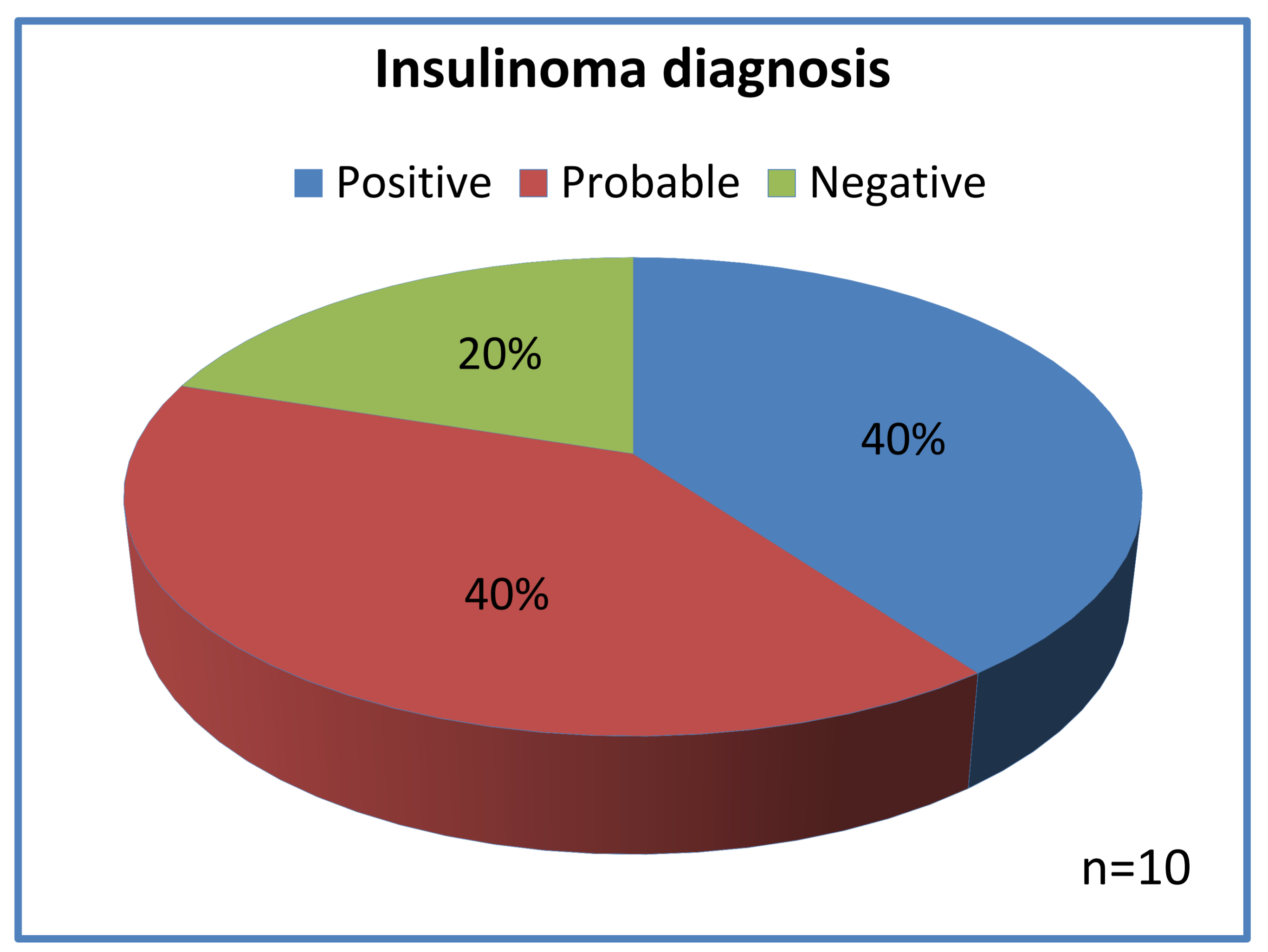
INTRODUCTION - Insulinoma is the most common cause of endogenous hypoglycemia in non-diabetic patients, being also the most prevalent pancreatic endocrine tumour.

Due to their small size, the localization with imaging methods is very limited and has been controversial. Most of them are histo-pathologically “benign” but physio-pathologically very aggressive due to the abnormal hormone production. Surgical resection is the only curative treatment, accurate detection and anatomic localization being extremely important for surgical strategy planning.

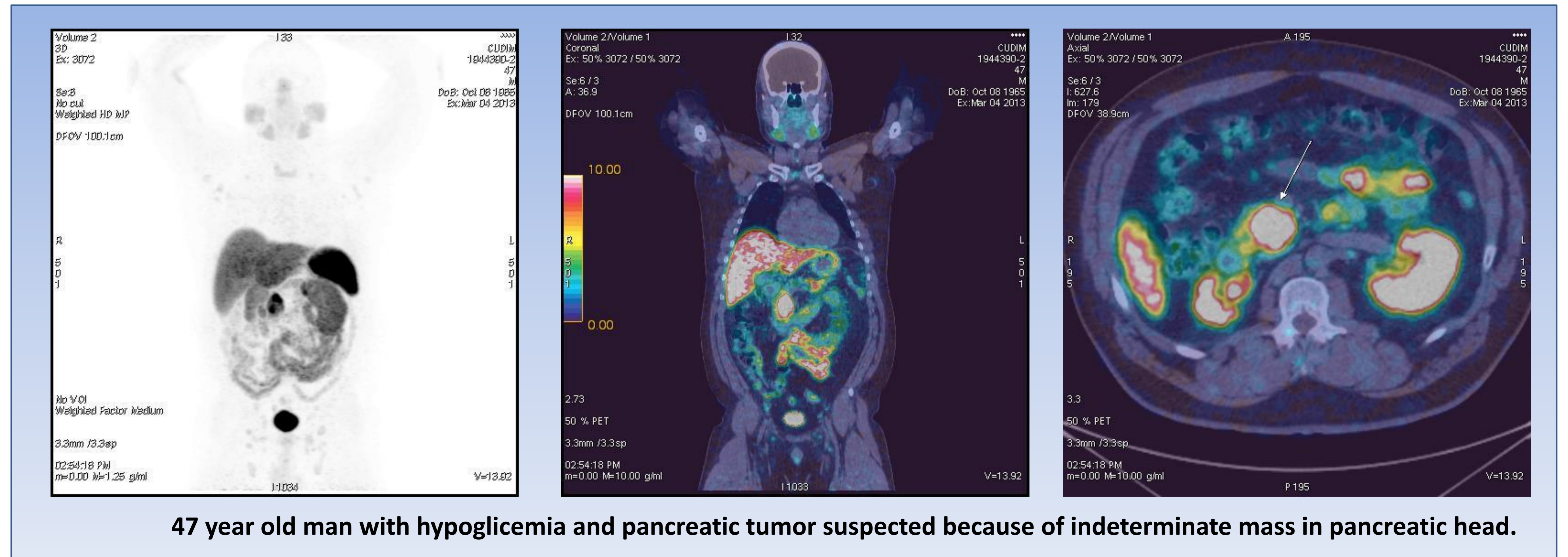
OBJECTIVE - The aim of this work is to determine the sensitivity of ⁶⁸Ga-DOTATATE in preoperative diagnosis of suspected insulinomas at CUDIM (Uruguayan Centre of Molecular Imaging).

METHOD - We retrospectively analysed the data of patients with suspected insulinoma between July 2010 and July 2014. Ten patients (5 women) with a mean age of 50 years (19-76y) were studied. PET/CT was performed 30 minutes after the radiotracer injection

Patient	Age	Finding	Outcome
1	51	Probable	Surgical confirmation
2	56	Negative	Asymptomatic
3	76	Positive	Deceased without confirmation
4	56	Negative	Asymptomatic
5	47	Positive	Surgical confirmation
6	65	Probable	Surgical confirmation
7	70	Probable	Surgical confirmation
8	32	Positive	Surgical confirmation
9	36	Probable	Surgical confirmation
10	19	Positive	Surgery scheduled



RESULTS – Positive diagnosis for definite insulinoma was performed in 4/10 patients, probable insulinoma in 4/10 patients and a negative result was observed in 2/10 patients. The mean clinical follow up was 23 months (7-49m). Positive confirmation for insulinoma was found in 75% of the patients reported as positive or probable. Surgical resection was made in all of them, with the exception of one patient who died and another who is scheduled for surgery. All patients who underwent surgery have remained asymptomatic, euglycemic and currently free from recurrence.



CONCLUSION - We can conclude that ⁶⁸Ga-DOTATATE PET/CT imaging is a helpful non-invasive diagnostic tool for the diagnosis and preoperative localization of insulinomas contributing to successful surgical treatment.