in the other two cases. Patients were found symptoms-free at follow-up. One patient underwent a second stent placement.

Conclusions: The present method results a safe alternative endoscopic procedure in very selected patients when surgery is not indicated.

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ENDOSCOPIC ULTRASONOGRAPHY IN THE DIAGNOSIS AND STAGING OF NEUROENDOCRINE TUMORS

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Background and aim: Gastroenteropancreatic neuroendocrine tumors (GEP-NETs) are nosological entities, whose incidence has dramatically increased during the last decades.

Endoscopic ultrasonography (EUS), associated to FNA and harmonic contrast-enhancement (CH-EUS), has been reported to be extremely useful for the diagnosis and the staging.

The objective of this study is to evaluate the accuracy of EUS in the diagnosis and the staging of GEP-NETs.

Material and methods: From January 2010 to September 2015, all NET's patients referred for EUS in our center were enrolled in this study.

According to the localization of the tumor, the patients also underwent laboratory tests and imaging techniques such as CT, MRI, SRS Octreoscan or DOTATOC. EUS procedures were performed using radial or linear echoendoscopes Pentax EG-3670URK–EG-3870UTK (Pentax Hamburg, Germany) with a Hitachi – Aloka Avius processor (Hitachi, Hamburg, Germany).

FNA procedures were performed with 25G FNA biopsy needles (EchoTip, Wilson-Cook Medical Inc, Winston-Salem, NC) and SonoVue (Bracco, Milano, Italy) was used for CH-EUS.

Results: 26 patients were enrolled in the study (17 m, 9 f) with median age of 56.9 years (range 10 - 87).

NET's were located in upper GI tract in 9 patients (6 stomach, 3 duodenum), in the rectum in 7 patients and in the pancreas in 10 patients.

In the patients with upper GI NET's, found at bioptic sampling, EUS confirmed endoscopical resection in 1 patient; surgical resection in 4 patients because of an invasion of the deeper layers; medical treatment in 4 patient with advanced disease.

In the patients with rectal NET's, found at bioptic sampling in colonoscopy, EUS permitted to choose the mucosectomy in 6 patients, and in 1 case surgical approach.
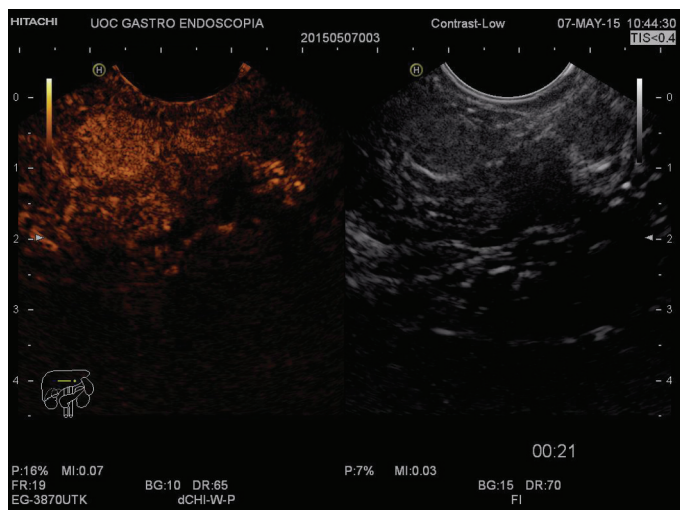
In pancreatic localization, CH-EUS showed a fast enhancement with a homogeneous pattern lesion in 3 patients with recurrent

hypoglycemias. FNA confirmed the diagnosis of insulinoma in all cases.

CT suspected a pancreatic NET in the other 7 patients, EUS+FNA confirmed the presence of neuroendocrine tumor. FNA was performed with a mean of 2.0 passages per patient.

Three patients underwent surgery, while the others underwent medical therapy for the advanced disease.

Neither major or minor complications showed up during or after the procedures.

Conclusions: This study highlights the diagnostic accuracy, safety of EUS in the evaluation and management of GEP-NETs. In particular, EUS was necessary to define whether the lesion could be managed endoscopically or surgically.

P.11.3

THE ROLE OF COMBINED USE OF EUS-FNA AND BILIARY BRUSHING IN CYTOLOGICAL DIAGNOSIS OF PANCREATOBILIARY MALIGNANCES

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Background and aim: Fifteen percent of patients with suspected pancreatobiliary malignancy that undergo surgery without a cytological assessment have a benign lesion. Cytological or histological diagnosis of pancreatobiliary malignancies before surgery is desirable in order to avoid unnecessary interventions.

We conducted a study in order to assess whether the combined use of biliary brushing and endoscopic ultrasound-guided fine needle aspiration (EUS--FNA) has greater accuracy than the individual procedures in diagnosing pancreatobiliary malignancies.

Material and methods: Study was conducted at the Gastroenterology Unit of Academic Hospital "S. M. della Misericordia", Udine, Italy. Twenty five patients with probable pancreatobiliary malignancy were subjected both to biliary brushing and EUS-FNA and collected material was sent for cytological analysis. The results of cytology were compared to the results of histology from surgical specimen.

Results: Histology of surgical specimen confirmed the diagnosis of pancreatobiliary malignancy in 24 of 25 patients, benign lesion caused by chronic pancreatitis was identified in one patient. Cytology from biliary brushing provided a correct diagnosis in 9 patients, with diagnostic accuracy of 36%. For the remaining 16 patients (54%), cytological diagnoses were as follows: indeterminate because of poor quantity or quality of the specimen in 15 patients, negative in one case (1 false negative). EUS-FNA provided a correct diagnosis in 18 patients with diagnostic accuracy of 72%, including the patient with a benign lesion. In 7 patients (28%) EUS-FNA didn't provide any result because of the poor quality of the specimen. The combined diagnostic accuracy of both methods was 80% as they together provided a correct diagnosis in 20 patients. The additional diagnostic gain derived from the joint use of biliary brushing and EUS-FNA was +44% compared to biliary brushing alone and +8%. cases compared to EUS-FNA alone.

Conclusions: The combined use of the EUS-FNA and biliary brushing results in increased accuracy of cytological diagnosing in pancreatobiliary malignancies. The biliary brushing as an addition to EUS-FNA should be considered in patients undergoing the endoscopic retrograde cholangiopancreatography (ERCP) in therapeutic purposes.