中文題目：胰臟神經內分泌腫瘤在對比劑增強內視鏡超音波下的型態表現－病例系列報告
英文題目：Contrast-enhancement endoscopic ultrasound characteristics of neuroendocrine pancreatic tumors: a case series report
作　　者：賴佳業[1], 廖思嘉[1], 廖苡君[1], 林穎正[1], 葉宏仁[1]
服務單位：[1]台中榮民總醫院內科部肝膽腸胃科

Background: Neuroendocrine tumors of the pancreas (pNET) are less common than pancreatic ductal adenocarcinoma. Endoscopic ultrasound (EUS) is recommended as the method of choice for detection of very small pancreatic tumors. Contrast-enhanced endoscopic ultrasound (CE-EUS) is helpful in characterizing pancreatic tumors which are incidentally found on other imaging. However, little known about how pNET in different grades present on CE-EUS. In our study, we used an ultrasound contrast agent (Sonazoid®) with microbubbles and investigated the characteristics of diagnosed pNET (particularly at an early stage) through CE-EUS by imaging the uptake of the microbubbles by the macrophages.

Patients and Methods: We retrospectively analyzed the characteristics of CE-EUS of pNETs confirmed by EUS-FNA or surgical pathology at our hospital between Dec. of 2018 to July of 2019. Using an EUS device compatible with operations in the contrast harmonic mode, after B-mode observations, we intravenously administered 7.5 µl/kg of Sonazoid® and conducted longitudinal observations from an early stage, which included up to 180 seconds in the contrast mode. We investigated the changes in the pancreatic tumorous findings before the contrast enhancement and in the early and later phases.

Results: Among 5 patients with histologically proved pNETs during the study period, one patients had 3-cm pancreatic mass with pathological diagnosis with combination of adenocarcinoma and NET which CE-EUS demonstrated hypoenhanced with heterogeneous parenchyma. One patient had diagnosed as 2.5-cm grade 2 pNET with hypoenhanced and somewhat heterogeneous echotexture under CE-EUS. Another 3 patients with size from 0.5 to 4cm with diagnosis of grade 1 low grade pNET had the images of CE-EUS with homogeneous echogenicity and early phage of hyperenhancement.

Conclusion: The CE-EUS findings between different differentiation of pNET became distinct. CE-EUS by using Sonazoid may be helpful for evaluation and estimation of the prognosis for pNET.