



Diagnosis of Pancreatic Cyst: Algorithm

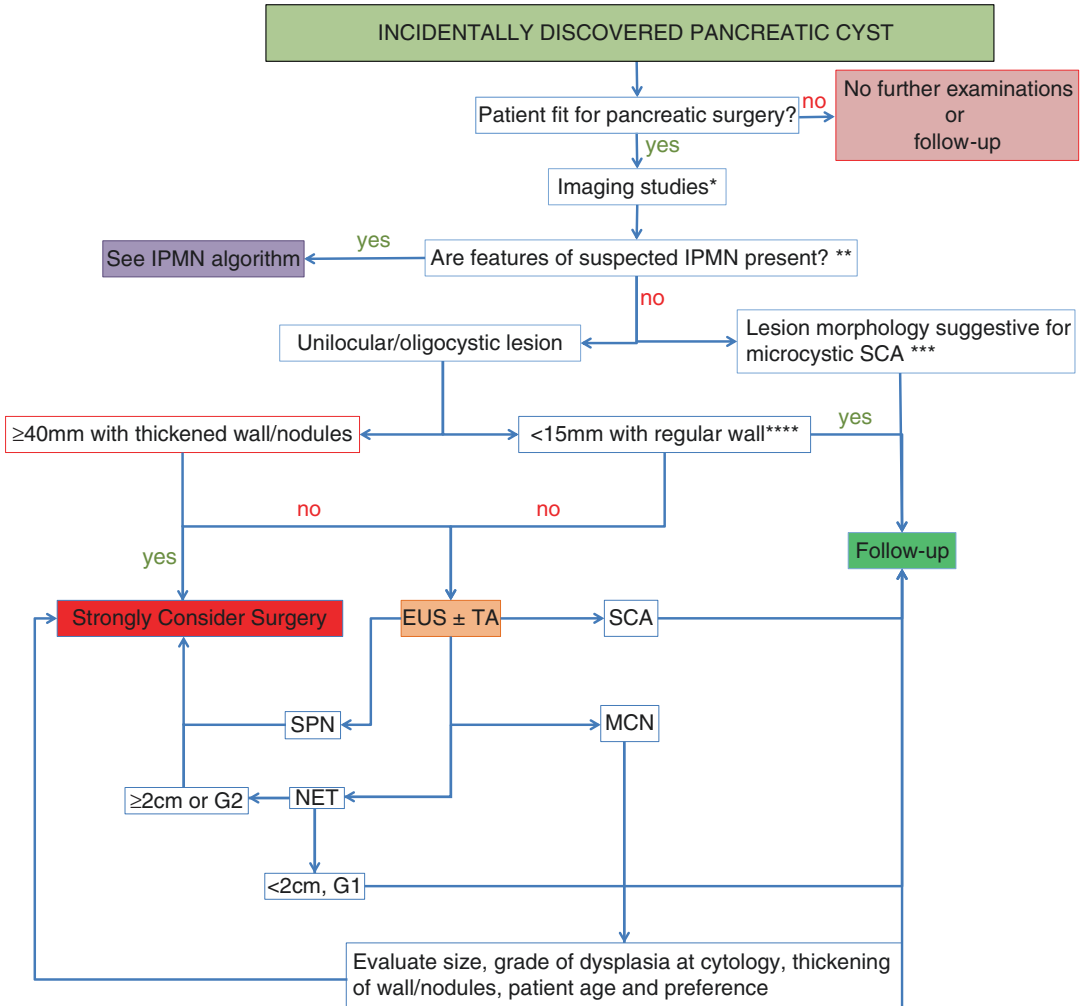
57

Stefano Francesco Crinò

Abbreviations

AP	Acute pancreatitis	MCN	Mucinous cystic neoplasm
BD-IPMN	Branch-duct intraductal papillary mucinous neoplasm	MPD	Main pancreatic duct
CE-CT	Contrast-enhanced computed tomography	MRCP	Magnetic resonance cholangiopancreatography
CE-EUS	Contrast-enhanced endoscopic ultrasound	MRI	Magnetic resonance imaging
EUS	Endoscopic ultrasound	NET	Neuroendocrine Tumor
HGD	High-grade dysplasia	RP	Recurrent pancreatitis
IPMN	Intraductal papillary mucinous neoplasm	SCA	Serous cystadenoma
		SPN	Solid pseudopapillary neoplasm
		TA	Tissue acquisition (fluid cytology, cyst wall fine-needle aspiration/ biopsy, through-the-needle biopsy)

S. F. Crinò (✉)
Gastroenterology and Digestive Endoscopy Unit,
The Pancreas Institute, University Hospital of Verona,
Verona, Italy
e-mail: stefanofrancesco.cрино@aovr.veneto.it

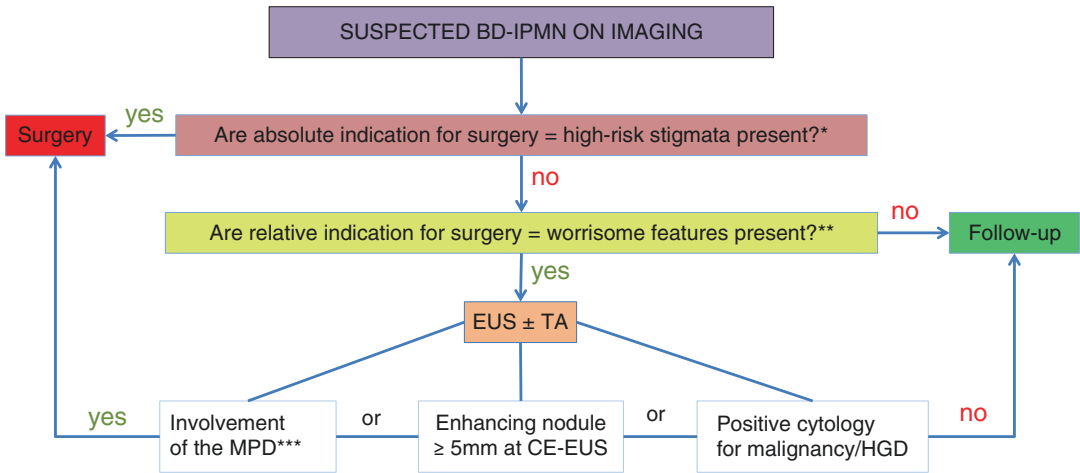


Footnotes:

- *Gadolinium-enhanced MRI with MRCP (preferred) and/or pancreatic protocol CE-CT
- **Communication with pancreatic ducts, multifocality, bunch of grapes morphology

***Lobulated honeycomb shape ± central scar/calcification

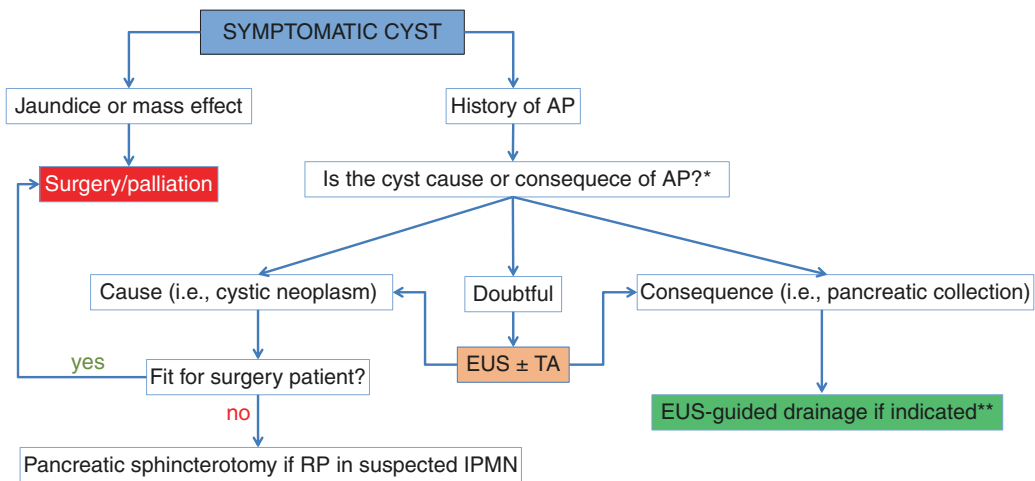
****Consider a first close follow-up for the risk of retention cyst in isodense pancreatic cancer



Footnotes:

*Solid mass, enhancing mural nodule ≥ 5 mm, MPD ≥ 10 mm
 **Enhancing mural nodule < 5 mm, MPD 5–9 mm; thickened/enhancing wall, abrupt change in caliber of MPD with distal atrophy;

lymphadenopathy; new onset of diabetes mellitus; CA 19-9 ≥ 37 U/mL; grow rate ≥ 5 mm/year (or 2 years, depending on evaluated guideline); cyst size ≥ 30 mm (or 40 mm, depending on evaluated guideline)
 ***MPD thickened wall/nodule or intraductal mucin



Footnotes:

*Evaluate the relation between the presence of the cyst and the onset of pancreatitis (i.e., was the cyst already present at the time of AP?) and the cyst morphology

**Symptoms (mass effect, vomiting, jaundice, abdominal pain), sign of infection, or increasing size

Bibliography

- Arvanitakis M, et al. Endoscopic management of acute necrotizing pancreatitis: European Society of Gastrointestinal Endoscopy (ESGE) evidence-based multidisciplinary guidelines. *Endoscopy*. 2018;50(5):524–46.
- Bernardoni L, et al. Preliminary experience with pancreatic sphincterotomy as treatment for intraductal papillary mucinous neoplasm-associated recurrent pancreatitis. *Endosc Int Open*. 2017;5(11):E1144–50.
- Buscarini E, et al. Italian consensus guidelines for the diagnostic work-up and follow-up of cystic pancreatic neoplasms. *Dig Liver Dis*. 2014;46(6):479–93.
- Sahani DV, et al. Diagnosis and management of cystic pancreatic lesions. *Am J Roentgenol*. 2013;2002(2):343–54.
- Tanaka M, et al. Revisions of international consensus Fukuoka guidelines for the management of IPMN of the pancreas. *Pancreatology*. 2017;17(5):738–53.
- The European Study Group on Cystic Tumours of the Pancreas. European evidence-based guidelines on pancreatic cystic neoplasms. *Gut*. 2018;67(5):789–804.