

Cystic pancreatic lesions

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Content

- Epidemiology
- Type of cysts
- Diagnosis
- Treatment

Study	Nr Patients	Prevalence (%)	Technique	Excl pancr disease
De Jong 2010	2803	2.4	MRI	Yes
Laffan 2008	2832	2.6	CT	Yes
Lee 2010	616	13.5	MRI	Yes
Spinelli 2004	24039	1.2	MRI+CT	No
Zhang 2002	1444	19.6	MRI	No
Kimura 1995	300	24.3	Autopsy	No

Pancreatic Cysts (pathology)

- Epithelial lining: –
(pseudocyst)

- Epithelial lining: +
(serous/mucinous)

- Degenerative/necrotic change in a solid neoplasm
 - solid-pseudopapillary neoplasm
 - cystic degeneration of ductal adenoca
 - neuroendocrine tumor

	SCN	MCN	IPMN	SPN	Pseudocyst
Sex	F>M	F>M	F=M	F>M	F=M
Age	60-70	40-60	60-70	20-30	All ages
Fluid	Thin clear	Viscous clear	Viscous clear	Thin bloody	Thin dark
Malignant	No	Yes	Yes	Yes	No

Diagnostic evaluation

Detailed history looking for symptoms related to:

- lesion itself
- related condition: pancreatitis

Pancreatic Cysts

Epithelial lining: +

1. Serous Cystic Neoplasm
2. Mucinous Cystic Neoplasm
3. IPMN

Serous cystic neoplasma (SCN)

- Benign
- Elderly women
- Microcystic, macrocystic or mixed type
- Oligo-/multilocular
- Head pancreas
- Classic central calcifications
- Glycogen rich cuboidal epithelium

Serous Cystic Neoplasm (SCN)

1. Microcystic
2. Macrocystic
3. Mixed

Microcystic SCN

- Male, 65 years
- Vague epigastric pain

Macrocystic SCN

- Male, 68 years
- Rheumatoid arthritis + methotrexate
- Increased liver enzymes

Treatment SCN:

- Wait and see
- Symptoms
- $\geq 4\text{cm}$: increased growth rate

Mucinous Cystic Neoplasm (MCN)

Mucinous Cystic Neoplasm (MCN)

- Exclusively middle aged women (40-60 years)
- Body or tail (95%)
- Generally septated and macrocystic
- No communication with pancreatic duct
- Ovarian stroma

Treatment MCN:

- Always resection
- In n=163 resected MCN:
 - 17.5% malignant
 - ≥4cm and nodules

- Inadequate sampling cyst wall
- Frequent surveillance (45 years presentation)
- Distal pancreatectomy: low morbidity/mortality

Intraductal Papillary Mucinous Neoplasm (IPMN)

- main duct
- side branch

Main duct IPMN

- Female, 40 years
- 7 years recurrent intense epigastric and back pain

Mixed type IPMN

- Female, 68 years
- Smoking +
- Alcohol +
- Food passage problems

Treatment IPMN

Risk of malignancy

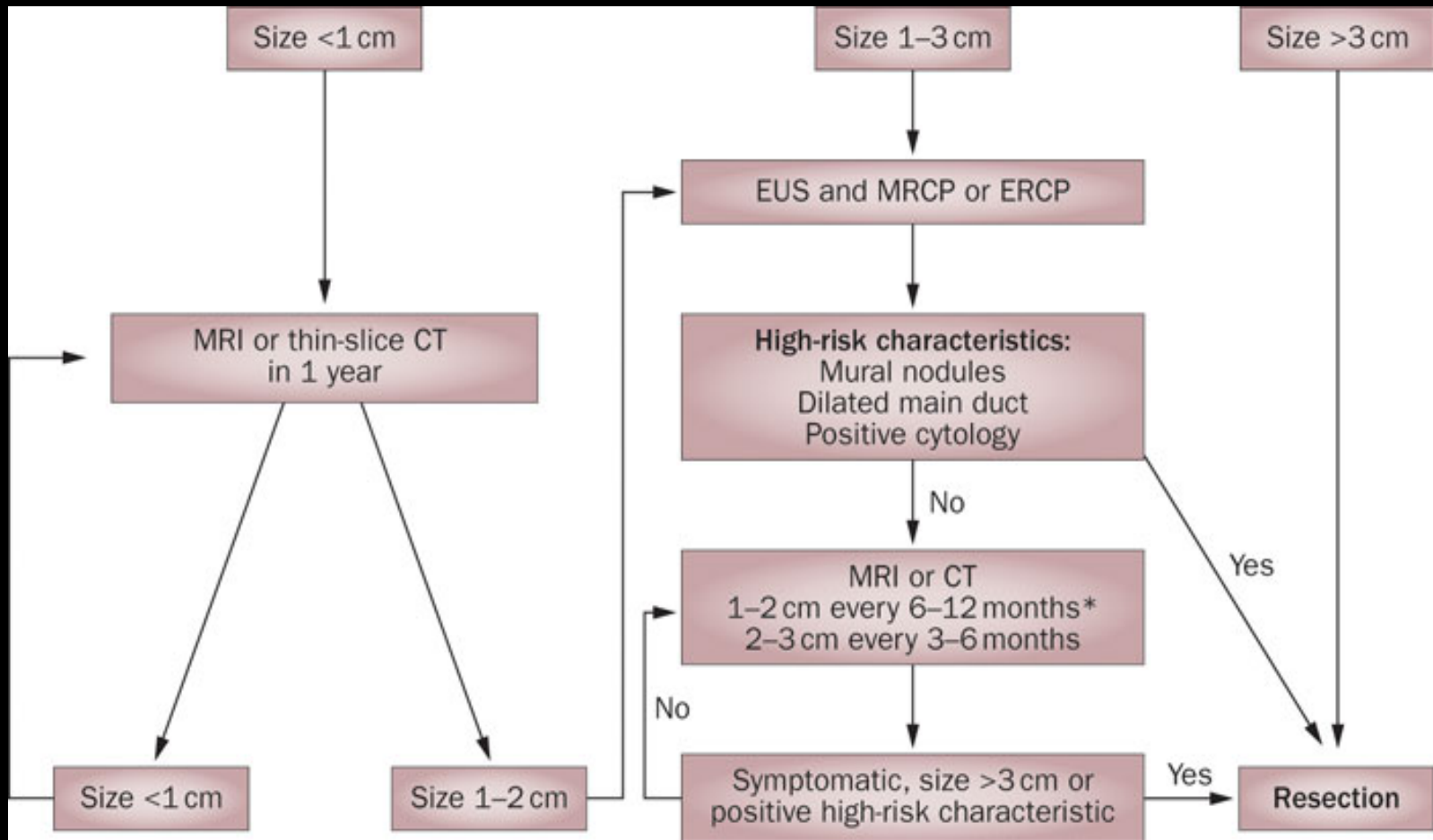
main duct : side branch = 70% : 25%

Treatment main duct IPMN

Resection regardless of symptoms:

- Head: PPPD + frozen section margin
- Tail: distal pancreatectomy
- Total pancreatectomy

Treatment side-branch IPMN



IPMN

Associated cancer in 29%:

- Gastric (26%)
- Colon (16%)
- Breast (14%)
- Pancreatic (10%)

IPMN + cause of death

40% extrapancreatic cancer

25% pancreatic cancer

20% IPMN per se

15% benign disease

1. Serous cystadenoma

- Benign
- Micro, macro, mixed
- Central calcifications

2. Mucinous cystadenoma, adenocarcinoma

- Pre-malignant
- Tail
- Septae, Ca+, not hypervascular

3. IPMN

- Main duct
- Side duct
- Combined
- Main duct > Malignant as Side duct
- Co-existing tumors