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How to distinguish on pancreatic EUS malignancy from benign AIP

A. BADAOUI, PH DEPREZ

UCL
Université
catholique
de Louvain

EGEUS
European Group for Endoscopic Ultrasonography

UKEUSUsers
The UK EUS Users Group

Endorsed by
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Sheraton Hotel, Edinburgh, Scotland, UK

Local Organisers: Colin McKay (UK), Ian Penman (UK)

To register: www.maximillionevents.co.uk/egeus2015
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2 TYPES OF AIP

Type I AIP (Asian / American)	Type II AIP (Italian)
• Lymphoplasmocytic sclerosing pancreatitis LPSP	• Idiopathic duct-centric pancreatitis IDCP
	• Granulocyte epithelial lesions in the pancreas
• Older men	• ♂ = ♀, younger (a decade)
• Pancreatic manifestation of IgG4- associated systemic disease	• no or minimal tissue infiltration with IgG4 ⊕ cells
• ↑ IgG4	• no ↑ IgG4
• Multiple organs involved	• Only associated with IBD (in 30%)

Suguman, Am J GE 2009; 104: 2308-2311

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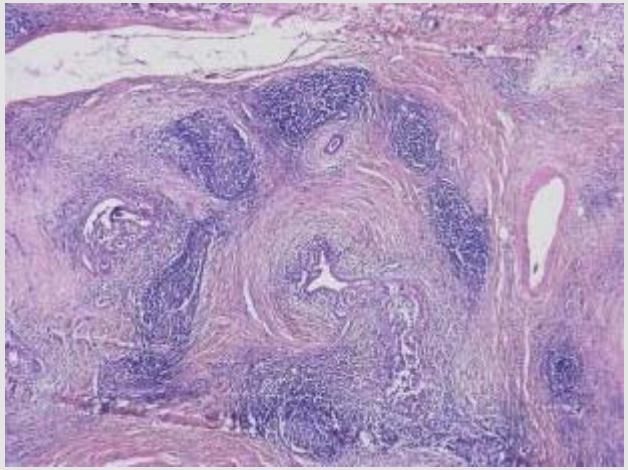
AIP TYPES

Type I AIP (Asian / American)

- **Lymphoplasmocytic sclerosing pancreatitis**

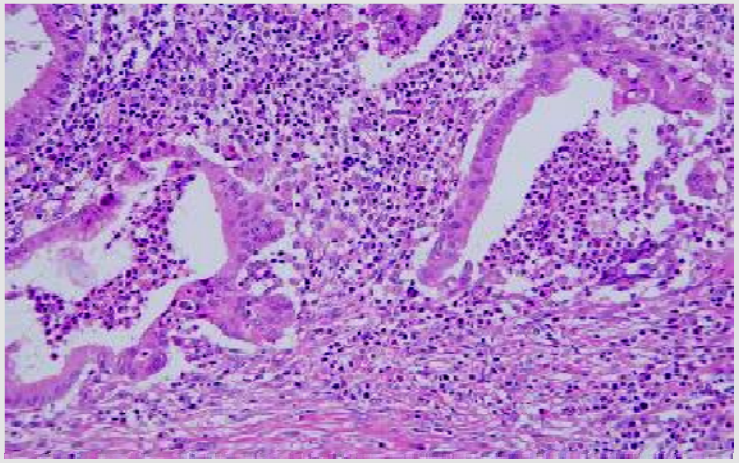
- Periductal inflammation
- Ductal obstruction / destruction
- Fibrosis / acinar tissue atrophy



Type II AIP (Italian)

- **Idiopathic duct-centric pancreatitis**

Granulocyte epithelial lesions in the pancreas



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DIFFERENCES IN CLINICAL PROFILE AND RELAPSE RATE OF TYPE 1 VERSUS TYPE 2 AUTOIMMUNE PANCREATITIS

	Type 1 AIP	Type 2 AIP	
• Age (y)	62 ± 14	48 ± 19	p<0.0001
• ↑ IgG4	47 / 59 (80%)	1 / 6 (17%)	p=0.004
• Other organs involved (proximal biliary, salivary, retroperitoneal, renal)	60%	0%	p<0.0001
• IBD associated	6%	16%	p=0.37
• FU (m)	42	29	
• Relapse	47%	0%	

Predictors of relapse:

proximal biliary involvement	HR = 2.13
diffuse pancreatic swelling	HR = 2.00
DPC	HR = 0.15

Sah RP et al, GE 2010, 139 : 140-148

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Diagnostic Criteria

- Pancreatic parenchyma imaging
- Pancreatic duct appearance
- Serology
- Extrapancreatic lesion
- Histopathological aspects
- Exclusion of biliary and pancreatic malignant lesions
- Improvement by steroid therapy

DIAGNOSIS OF AIP

Criterion	Level 1	Level 2
Parenchymal imaging	Typical: diffuse enlargement with delayed enhancement (sometimes associated with rim-like enhancement)	Indeterminate (including atypical): segmental/focal enlargement with delayed enhancement
Ductal imaging (ERP)	Long (>1/3 length of the main pancreatic duct) or multiple strictures without marked upstream dilatation	Segmental/focal narrowing without marked upstream dilatation (duct size, <5 mm)
Serology	IgG4, >2x_ upper limit of normal value	IgG4, 1–2x_upper limit of normal value
Other organ involvement (OOI)	a or b a. Histology of extrapancreatic organs Any three of the following: (1) Marked lymphoplasmacytic infiltration with fibrosis and without granulocytic infiltration (2) Storiform fibrosis granulocytic infiltration (3) Obliterative phlebitis (4) Abundant (>10 cells/HPF) IgG4-positive cells b. Typical radiological evidence At least one of the following: (1) Segmental/multiple proximal (hilar/intrahepatic) or proximal and distal bile duct stricture (2) Retroperitoneal fibrosis	a or b a. Histology of extrapancreatic organs including endoscopic biopsy of bile duct Both of the following: (1) Marked lymphoplasmacytic infiltration with fibrosis without granulocytic infiltration (2) Abundant (>10 cells/HPF) IgG4-positive cells b. Physical or radiological evidence At least one of the following: (1) Symmetrically enlarged salivary/lacrimal glands (2) Radiological evidence of renal involvement described in association with AIP
Histology of the pancreas	LPSP (core biopsy/resection) At least 3 of the following: (1) Periductal lymphoplasmacytic infiltrate without granulocytic infiltration (2) Obliterative phlebitis (3) Storiform fibrosis (4) Abundant (>10 cells/HPF) IgG4-positive cells	LPSP (core biopsy) Any 2 of the following: (1) Periductal lymphoplasmacytic infiltrate without granulocytic infiltration (2) Obliterative phlebitis (3) Storiform fibrosism (4) Abundant (>10 cells/HPF) IgG4-positive cells

Diagnostic steroid trial. Response to steroid (Rt) Rapid (e2 wk) radiologically demonstrable resolution or marked improvement in pancreatic/extrapancreatic manifestations.

Shimosegawa,T., et al. (2011). International consensus diagnostic criteria for auto immune pancreatitis: guidelines of the International Association of Pancreatology. Pancreas 40, 352–358.