

**27**<sup>ème</sup> congrès

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# SYNCHRONOUS PRE-MALIGNANT LESIONS IN PATIENTS WITH BILIO-PANCREATIC CANCER

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## Pancreatic synchronous pre-malignant lesions

**IPMN** Main duct and/or high-grade dysplasia



**PanINs** Main duct and/or high-grade dysplasia (PanINs-3)



- High-risk lesions for development of pancreatic cancer
- Usually multifocal
- Can be synchronous with pancreatic cancer





### Pancreatic synchronous pre-malignant lesions

**IPMN PanINs** Main duct and/or high-grade dysplasia Main duct and/or high-grade dysplasia (PanINs-3) PanIN-1| PanIN-2 PanIN-3 PDAC Diagnostic accuracy of CT/MRI is 80% Microscopic lesions detected only in the surgical specimen

After partial pancreatic resection, synchronous lesions in the pancreatic remnant may progress to invasive cancer.



#### Evaluate the **incidence of synchronous pre-malignant lesions** in the surgical

specimens of patients treated for blio-pancreatic cancer







- Retrospective study
- Patients with bilio-pancreatic cancer submitted to surgery between 2012 and 2017

Synchronous pre-malignant lesions  $\rightarrow$  IPMN and PanIN

High-risk lesions  $\rightarrow$  IPMN or PanIN of main duct and/or high-grade dysplasia

- All <u>surgical specimen were reviewed</u> to evaluate the presence of synchronous premalignant lesions.
- Diagnostic <u>accuracy of pre-operative CT/MRI</u> for detection of cystic lesions was assessed.
- Comparison of demographic and clinical characteristics of <u>patients with and without</u>
  <u>synchronous pre-malignant lesions</u>.



# Synchronous pre-malignant lesions

125 patients submitted to pancreatic surgery with curative intend were evaluated

97 patients had malignant lesions of the pancreas, ampulla of Vater or CBD

29 (30%) with synchronous pre-malignant lesions

IPMN: 14 patients PanIN: 9 patients IPMN + PanIN: 6 patients

19 (20%) with high-risk synchronous pre-malignant lesions

High-risk IPMN: 8 patients High-risk PanIN: 7 patients High-risk IPMN + High-risk PanIN: 4 patients





# **IPMN** – Diagnostic accuracy of CT/MRI

**97 patients with malignant lesions**  $\rightarrow$  15 excluded for unavailable CT/MRI

IPMN: 22 patients

Cystic lesions in preoperative CT/MRI (n=82)				
Accuracy, % (n)	<b>79%</b> (65/82)			
Sensibility, % (n)	<b>27 %</b> (6/22)			
Specificity, % (n)	<b>98%</b> (59/60)			
Positive predictive value, % (n)	<b>86%</b> (6/7)			
<b>Negative predictive value</b> , % (n)	<b>79</b> % (59/75)			





# Patients with and without synchronous lesions

	97	patients	with	malignant	lesions
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	Group without pre-malignant lesions (n=68)	Group with pre-malignant lesions (n=29)	Ρ
Age - years (mean ± SD)	67.9 ± 12.6	69.6 ± 8.1	0.521
Male gender, n (%)	39 (57%)	15 (52%)	0.609
Pathology, n (%)			
Pancreatic adenocarcinoma	31 (46%)	22 (76%)	0.006
Surgery, n (%)			
Segmental pancreatectomy	60 (88%)	20 (69%)	0 0 2 2
Total pancreatectomy	8 (12%)	9 (31%)	0.022
Follow-up – months (range)	11 (0-64)	13 (0-60)	-



## Type of surgery

#### 97 patients with malignant lesions

	Segmental pancreatectomy (n=80)	Total pancreatectomy (n=17)	Ρ
Without pre-malignant lesions, n (%)	60 (75%)	8 (47%)	0.000
With pre-malignant lesions, n (%)	20 (25%)	9 (53%)	0.022
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Survival impact?





#### **Segmental pancreatectomy - Survival**





- In this study, **30%** of patients who underwent pancreatic surgery for biliopancreatic cancer had **high-risk synchronous pre-malignant lesions.**
- Only one-third of the cystic lesions were detected in pre-operative CT/MRI.
- Synchronous pre-malignant lesions were more frequent after total pancreatectomy, which suggests that this association is still underestimated.
- These results raise the possibility that a segmental resection leaves behind a pancreatic remnant at risk of progression to invasive cancer.
- Therefore, in patients undergoing segmental pancreatectomy we may consider an intra-operative pancreatoscopy or more intensive surveillance programs, if the first strategy is not feasible.







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