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A real-world evidence analysis of periampullary cancers in an academic hospital in Chile

Luis Villanueva, Gonzalo Navarrete, Ivan Gallegos, Valentina Castillo, Francisco Dodds, Jaime Gonzalez, Olga Barajas, Rodrigo Vasquez, Barbara Nuñez, Monica Ahumada; Hospital Clinico Universidad de Chile, Santiago, Chile

ABSTRACT

Periampullary carcinoma (PAC) is a widely used term to define a heterogeneous group of neoplasms arising from the head of the pancreas, the distal common bile duct and the duodenum or structures of the ampullary complex. The incidence of PAC is low, 0.5-2% of all gastrointestinal malignancies, and 20% of all tumors of the extrahepatic biliary tree. According to the microscopic classification, there are two main histological types of PAC: the “intestinal-type” (IN, similar to tubular carcinoma of the stomach or the colon and the “pancreatobiliary type” (PB, characterized by papillary projections with scant fibrous cores). The treatment of choice in the early stages is pancreatoduodenectomy. The management post-surgery depends on the histology pattern, and the overall survival can vary in different subgroups

OBJECTIVES

Analyze epidemiological, clinical, surgical, and histological data of patients with PAC operated at surgery unit, Hospital Clinico Universidad de Chile.

METHODS

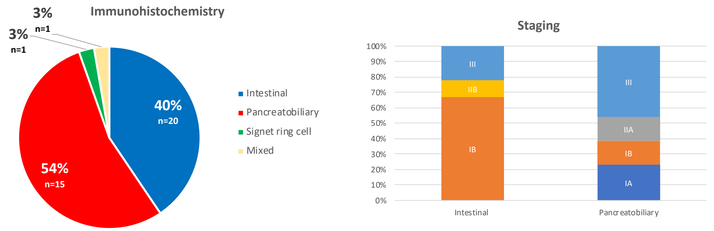
Retrospective cohort study. PAC was defined as pancreatic (distal) ductal, extrahepatic (distal) bile duct, ampullary, and duodenal tumors.
We only examined patients (pts) with invasive PAC undergoing pancreatoduodenectomy. Other types of tumors were excluded.
Patients operated at the surgery unit, between 2002 to 2018 were analyzed. All histopathological workup was performed at Pathology Unit, Hospital Clinico Universidad de Chile.

Pathological assessment

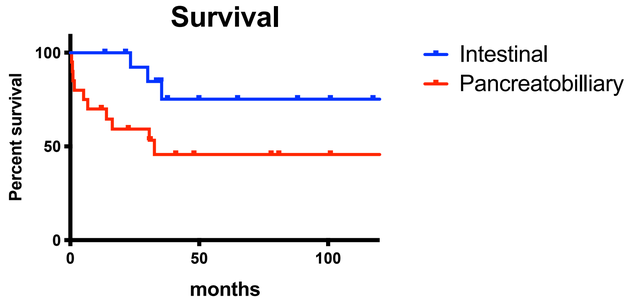
Pathologists evaluated archived H&E stained slides. FFPE blocks were selected for tissue slides for immunohistochemistry. Cores of 5mm with representative invasive.

Immunohistochemistry was carried out using commercial antibodies: CK20 (Cell Marque, USA), CK7 (Thermo, USA), CDX2 (Cell Marque, USA), MUC1 (Cell Marque, USA), MUC2 (Cell Marque, USA). Expressions were calculating % of immunoreactive cells/number of tumor cells. Tumors ≥10% positive tumor cells were positive. MUC2 positive were considered with any positive % of tumor cells. CDX2 positive cases were subdivided continuous (≥50% positive cells in continuous fashion) and discontinuous (<50% of positive cells in a discontinuous fashion).

RESULTS



	All (n=37)	Intestinal (n=15)	Pancreatobiliary (n=20)	P value
Male/Female (n)	22/15	8/7	13/7	
Age (mean +/-SD, years)	62.5 (9.9)	59.9 (+/- 9.5)	64.8 (+/- 10.3)	0.1646 (ns)
Hb (mean +/- SD, gr/dl)		12.26 (+/- 1.7)	12.3 (+/- 2.5)	0.9443 (ns)
Albumin (mean +/- SD, gr/dl)		3.5 (+/- 0.77)	4.0 (+/- 2.3)	0.8264 (ns)
Levels Ca19-9 (mean +/- SD,)		41.5 (+/-34.0)	629.7 (+/- 940)	0.1203 (ns)
Any concordance IHC/histology		68%	95%	
Full concordance IHC/histology (%)		0%	66%	
Post-operative (adjuvant) chemotherapy (n)	7	2	5	



	IN	PB	P value	HR
Median OS (ms)	133.5	32.6	0.021	0.38 (95% CI ,0.1332 to 1.084)
OS 5 years	75.2%	45.7%		

CONCLUSIONS

PAC remains very challenging because it is a rare malignancy and present diverse histological pattern. These factors influence the behavior and OS of the disease.

Our results showed relevant differences in the staging, levels of Ca19-9, and OS (statically significant) of the IN and PB subtypes.

Our patients received few post-operatory therapies such as chemotherapy; this factor could influence the OS in the high-risk group.

A personalized treatment, according to immunohistochemistry type, should be considered in this disease.

REFERENCES

1. Hester CA, Dogeas E, Augustine MM,et al. Incidence and comparative outcomes of periampullary cancer: A population-based analysis demonstrating improved outcomes and increased use of adjuvant therapy from 2004 to 2012. J Surg Oncol. 2019 Mar;119(3):303-317.
2. Schmuck R., Brokat C, Andreou A, et al. Clinicopathological stratification and long-term follow-up of patients with periampullary carcinomas. Anticancer res. 2018 sep;38(9):5379-5386
3. Bronsert P, Kohler I, Werner M., et al. Intestinal type of differentiation predicts favourable overall survival: confirmatory clinicopathological analysis of 198 periampullary adenocarcinomas of pancreatic, biliary, ampullary and duodenal origin. BMC Cancer. 2013 Sep 22; 13:428.

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