



## **ABDOMEN**

### ➤ **Renal liposarcoma: case report and review of systemic treatment**

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**REVISTA:** Case Reports Ecancermedicalsecience 2021 Jan 14;15:1173. doi: 10.3332/ecancer.2021.1173. eCollection 2021.

**ABSTRACTO:** Liposarcomas are malignant mesenchymal tumours usually located in the retroperitoneum, rarely occurring as a single lesion in the kidney. We present a case of a 59-year-old male patient with a left renal mass detected by computed tomography scan. He underwent radical nephrectomy and the histopathological study reported a primary undifferentiated liposarcoma of the kidney without nodal involvement. After 15 months of surgery, he remained asymptomatic and without evidence of disease recurrence. The objective of this report is to present a case and literature review with current evidence of treatment options and prognostic factors for survival.

### ➤ **Preoperative Predictors for 90-Day Mortality after Pancreaticoduodenectomy in Patients with Adenocarcinoma of the Ampulla of Vater: A Single-Centre Retrospective Cohort Study**

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**REVISTA:** Surg Res Pract 2021 Feb 27;2021:6682935. doi: 10.1155/2021/6682935. eCollection 2021.

**ABSTRACTO:** Background: The standard treatment for ampullary adenocarcinoma is pancreaticoduodenectomy. Identification of preoperative risk factors might help the clinician to select patients fit for resection and potentially decrease morbidity and mortality after PD. We conducted a cohort study to determine the preoperative factors related to 90-day severe morbidity and mortality after PD. Methods: We conducted a retrospective cohort study in patients with a diagnosis of ampullary adenocarcinoma who underwent an open PD between January 2010 and December 2019 at our tertiary centre. Results: Independent preoperative predictors of mortality were the albumin-bilirubin (ALBI) grade 3 (OR: 21.7; CI 95: 2.1-226.9; p=0.01) and the estimated glomerular filtration rate (eGFR) <90 mL/min/1.73 m<sup>2</sup> (OR: 17.7; CI 95: 1.8-172.6; p=0.013). The eGFR <90 mL/min/1.73 m<sup>2</sup> (OR = 6.6; CI 95: 1.9-23.4; p=0.003) and prothrombin time (OR = 1.5; CI 95: 1.1-2.1; p=0.005) were independent predictors for severe morbidity. Conclusion: These findings suggest that baseline renal function measured by the eGFR and liver function categorized with the ALBI grading are predictors of severe morbidity and mortality. Thus, they should be considered when selecting patients for PD or the use of neoadjuvant treatments. Further research is warranted.



➤ **Global DNA hypermethylation pattern and unique gene expression signature in liver cancer from patients with Indigenous American ancestry**

**INVESTIGADORES:** Juan Pablo Cerapio, Agnès Marchio, Luis Cano, Ignacio López, Jean-Jacques Fournié, Béatrice Régnauld, Sandro Casavilca-Zambrano, Eloy Ruiz, Anne Dejean, Stéphane Bertani, Pascal Pineau.

**REVISTA:** *Oncotarget* 2021 Mar 2;12(5):475-492. doi: 10.18632/oncotarget.27890.

**ABSTRACTO:** Hepatocellular carcinoma (HCC) usually afflicts individuals in their maturity after a protracted liver disease. Contrasting with this pattern, the age structure of HCC in Andean people displays a bimodal distribution with half of the patients developing HCC in adolescence and early adulthood. To deepen our understanding of the molecular determinants of the disease in this population, we conducted an integrative analysis of gene expression and DNA methylation in HCC developed by 74 Peruvian patients, including 39 adolescents and young adults. While genome-wide hypomethylation is considered as a paradigm in human HCCs, our analysis revealed that Peruvian tumors are associated with a global DNA hypermethylation. Moreover, pathway enrichment analysis of transcriptome data characterized an original combination of signatures. Peruvian HCC forgoes canonical activations of IGF2, Notch, Ras/MAPK, and TGF- $\beta$  signals to depend instead on Hippo/YAP1, MYC, and Wnt/ $\beta$ -catenin pathways. These signatures delineate a homogeneous subtype of liver tumors at the interface of the proliferative and non-proliferative classes of HCCs. Remarkably, the development of this HCC subtype occurs in patients with one of the four Native American mitochondrial haplogroups A-D. Finally, integrative characterization revealed that Peruvian HCC is apparently controlled by the PRC2 complex that mediates cell reprogramming with massive DNA methylation modulating gene expression and pinpointed retinoid signaling as a potential target for epigenetic therapy.

➤ **Surgery of pancreas tumors in pediatric and adolescent patients: a single institution experience in South America**

**INVESTIGADORES:** Oscar Paredes, Yoshikuni Kawaguchi, Eloy Ruiz, Eduardo Payet, Francisco Berrospi.

**REVISTA:** *Pediatr Surg Int* 2021 Mar 19. doi: 10.1007/s00383-021-04877-3.

**ABSTRACTO:** Purpose: Pancreas tumors are extremely rare in pediatric and adolescent patients. Surgical resection is the mainstay of treatment; however, the data are limited with respect to morbidity and mortality. We aimed to evaluate short- and long-term outcomes of pediatric and adolescent patients who underwent surgical resection of pancreatic tumors. Methods: Patients [Formula: see text] 18-year-olds who underwent resection of pancreas tumor at the National Institute of Neoplastic Diseases INEN during 2000-2020 were included. Results: Thirty-four patients were diagnosed; 28 patients were female and 6 were male. The median age was 13.4-years-old. Histological diagnosis was solid pseudopapillary neoplasm (SPN) (n = 29, 85.3%), pancreatoblastoma (n = 3), neuroendocrine carcinoma (n = 1), and insulinoma (n = 1). No patient experienced postoperative mortality and 15 (44.1%) patients developed postoperative complications including pancreatic fistula as the most frequent. Under a median follow-up period of 33.8 (0.5-138) months, four (11.8%) patients died. Of the 29 patients with SPN, the 3- and 5-year OS rates were 100% and 83.1%, respectively. Conclusions: SPN was the most frequent cause of surgical treatment for pediatric and

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adolescent patients in the high-volume cancer center in Peru and was associated with favorable survival. Pancreaticoduodenectomy was safely performed in this patient group with acceptable morbidity and zero mortality.

### ➤ **Risk factors associated with postoperative morbidity and mortality in D2 radical gastrectomy for gastric cancer**

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**REVISTA:** Rev Gastroenterol Mex 2021 Mar 19;S0375-0906(21)00013-6. doi:10.1016/j.rgmx.2020.11.004.

**ABSTRACTO:** Introduction and aims: Surgery is the main treatment for gastric cancer. D2 radical gastrectomy is associated with a variable postoperative morbidity and mortality rate worldwide. The aim of the present study was to identify the risk factors associated with the postoperative morbidity and mortality of D2 radical gastrectomy, with curative intent, for gastric cancer. Materials and methods: A retrospective case series was conducted, in which the medical records were reviewed of patients with gastric cancer that underwent D2 radical gastrectomy, within the time frame of January 2014 and December 2018. Univariate and multivariate analyses were carried out to identify the risk factors related to postoperative morbidity and mortality within 90 days. Results: The percentages of postoperative morbidity and mortality in 691 patients were 23.3% and 3.3%, respectively. In the multivariate analysis, age  $\geq 70$  years (OR=1.85, 95% CI: 1.25-2.76), ASA III-IV (OR=2.06, 95% CI: 1.28-3.34), total gastrectomy (OR=1.96, 95% CI: 1.19-3.23), and pancreateosplenectomy (OR=5.41, 95% CI: 1.42-20.61) were associated with greater postoperative morbidity, and age  $\geq 70$  years (OR=4.92, 95% CI: 1.78-13.65), lower BMI (OR=0.81, 95% CI: 0.71-0.92), and hypoalbuminemia (OR=0.91, 95% CI: 0.85-0.98) were associated with greater mortality in distal and total D2 radical gastrectomy. Conclusions: D2 radical gastrectomy for gastric cancer was shown to be a safe treatment, with low postoperative morbidity and mortality rates. Age  $\geq 70$  years, ASA III-IV, total gastrectomy, and pancreateosplenectomy were factors associated with a higher complication rate. Age  $\geq 70$  years, lower BMI, and hypoalbuminemia were mortality predictors in distal and total radical gastrectomy.

### ➤ **Prognostic Factors in De Novo Metastatic Renal Cell Carcinoma: A Report From the Latin American Renal Cancer Group**

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**REVISTA:** JCO Glob Oncol 2021 May;7:671-685. doi: 10.1200/GO.20.00621.

**ABSTRACTO:** Purpose: To assess the effect of clinical and pathological variables on cancer-specific and overall survival



(OS) in de novo metastatic patients from a collaborative of primarily Latin American countries. Patients and methods: Of 4,060 patients with renal cell carcinoma diagnosed between 1990 and 2015, a total of 530 (14.5%) had metastasis at clinical presentation. Relationships between clinical and pathological parameters and treatment-related outcomes were analyzed by Cox regression and the log-rank method. Results: Of 530 patients, 184 (90.6%) had died of renal cell carcinoma. The median OS of the entire cohort was 24 months. American Society of Anesthesiology classification 3-4 (hazard ratio [HR]: 1.64), perirenal fat invasion (HR: 2.02), and  $\geq 2$  metastatic organ sites (HR: 2.19) were independent prognostic factors for 5-year OS in multivariable analyses. We created a risk group stratification with these variables: no adverse risk factors (favorable group), median OS not reached; one adverse factor (intermediate group), median OS 33 months (HR: 2.04); and two or three adverse factors (poor risk group), median OS 14 months (HR: 3.58). Conclusion: Our study defines novel prognostic factors that are relevant to a Latin American cohort. With external validation, these easily discerned clinical variables can be used to offer prognostic information across low- and middle-income countries.

➤ **Clinicopathological factors associated with the presence of tumor deposits in resected gastric cancer patients**

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**REVISTA:** Heliyon 2021 May 29;7(6):e07185. doi: 10.1016/j.heliyon.2021.e07185. eCollection 2021 Jun.

**ABSTRACTO:** Purpose: The role of tumor deposits (TDs) in the staging of gastric cancer is currently debatable. TDs are defined as tumoral nodules in perigastric adipose tissue with no evidence of lymphatic, vascular, or neural structures. Clinicopathological factors related to the presence of TDs are not well defined. This study aimed to identify the clinicopathological factors associated with the presence of TDs in resected gastric cancer patients. Materials and methods: This prospective study included patients diagnosed with gastric cancer and treated with D2 radical gastrectomy from January 2019 to January 2020. Univariate and multivariate analyses were performed to determine the factors related to the presence of TDs. Results: A total of 111 patients were eligible and TDs were present in 31 of them (28%). In the univariate analysis, male gender ( $p = 0.027$ ), tumor size  $\geq 5$  cm ( $p = \leq 0.001$ ), serosa and adjacent organs invasion (pT4a and pT4b) ( $p = \leq 0.001$ ),  $\geq 16$  metastatic lymph nodes (pN3b) ( $p = \leq 0.001$ ), and TNM stage III tumors ( $p = \leq 0.001$ ) were significantly associated with the presence of TDs. The multivariate analysis showed that a tumor size  $\geq 5$  cm (OR = 3.69, 95% CI: 1.17-11.6), serosa and adjacent organs invasion (pT4a and pT4b) (OR = 3.78, 95% CI: 1.31-10.86) and  $\geq 16$  metastatic lymph nodes (pN3b) (OR = 3.21, 95% CI: 1.06-9.7) were independent risk factors for the presence of TDs. Conclusions: Larger tumors (tumor size  $\geq 5$  cm), serosa and adjacent organs invasion (pT4a and pT4b), and  $\geq 16$  metastatic lymph nodes (pN3b) were independent risk factors for the presence of TDs.



### ➤ **Tratamiento y pronóstico de los pacientes con insulinoma**

**INVESTIGADORES:** Andrés Guevara, Francisco Berrospi, Carlos Luque-Vasquez, Iván Chávez, Eduardo Payet, Eloy Ruiz.

**REVISTA:** Carcinomas 2019; 9(1): 3-9.

**ABSTRACTO:** Introducción: Los insulinomas son tumores pancreáticos funcionales raros caracterizados por su buen pronóstico, el cual varía según la presencia de factores de riesgo, estadio clínico y tratamiento. Objetivo: Describir el tratamiento y el pronóstico de los pacientes con insulinoma. Métodos: Estudio observacional descriptivo y retrospectivo de pacientes con insulinoma diagnosticados y tratados en el Instituto Nacional de Enfermedades Neoplásicas (INEN) durante el periodo 1992- 2017. Resultados: Se evaluaron 14 pacientes, de los cuales 13 (92,9%) presentaron insulinomas esporádicos y 12 (92,3%) presentaron lesiones únicas. En 12 (85,7%) pacientes la lesión fue identificada en el preoperatorio. Todas las lesiones fueron intrapancreáticas: 5 (35,7%) en la cola, 5 (35,7%) en el cuerpo y 4 (28,6%) en la cabeza del páncreas. La mediana del tamaño tumoral fue de 2,3 cm (rango; 1,2-14 cm). Nueve (64,3%) pacientes fueron tratados mediante enucleación, de los cuales 7 (77,8%) de ellos fue por vía laparoscópica. Dos (14,2%) pacientes presentaron recurrencia en el seguimiento, uno hepático y otro peritoneal. La supervivencia global (SG) fue 93 % a los 5 años y 86% a los 10 años. Conclusión: Los insulinomas son tumores pequeños y únicos, identificados en la mayoría de los casos por imágenes en el preoperatorio. La enucleación laparoscópica es el tratamiento de preferencia dependiendo del tamaño y ubicación del insulinoma. Se puede alcanzar una mejor SG en los insulinomas recurrentes con tratamiento multimodal.

### ➤ **A preoperative nomogram for predicting long-term survival after resection of large hepatocellular carcinoma (>10 cm)**

**INVESTIGADORES:** Eloy Ruiz, Pascal Pineau, Claudio Flores, Ramiro Fernández, Luis Cano, Juan Pablo Cerapio, Sandro Casavilca-Zambrano, Francisco Berrospi, Ivan Chávez, Benjamin Roche, Stéphane Bertani.

**REVISTA:** HPB (Oxford) 2021 Jun 19;S1365-182X(21)00177-5. doi: 10.1016/j.hpb.2021.06.006.

**ABSTRACTO:** Background: It has previously been demonstrated that a fraction of patients with hepatocellular carcinoma (HCC) > 10 cm can benefit from liver resection. However, there is still a lack of effective decision-making tools to inform intervention in these patients. Methods: We analysed a comprehensive set of clinical data from 234 patients who underwent liver resection for HCC >10 cm at the National Cancer Institute of Peru between 1990 and 2015, monitored their survival, and constructed a nomogram to predict the surgical outcome based on preoperative variables. Results: We identified cirrhosis, multifocality, macroscopic vascular invasion, and spontaneous tumour rupture as independent predictors of survival and integrated them into a nomogram model. The nomogram's ability to forecast survival at 1, 3, and 5 years was subsequently confirmed with high concordance using an internal validation. Through applying this nomogram, we stratified three groups of patients with different survival probabilities. Conclusion: We constructed a preoperative nomogram to predict long-term survival in patients with HCC >10 cm. This nomogram is useful in determining whether a patient with large HCC might truly benefit from liver resection, which is paramount in low- and middle-income countries where HCC is often diagnosed at advanced stages.



➤ **Metallomic profile in non-cirrhotic hepatocellular carcinoma supports a phenomenon of metal metabolism adaptation in tumor cells**

**INVESTIGADORES:** Luis Cano, Stéphane Bertani, Marie-Laure Island, Juan Pablo Cerapio, Eloy Ruiz, Pascal Pineau, Valérie Monbet, Karim Boudjema, Luis Taxa, Sandro Casavilca-Zambrano, Martine Ropert, Bruno Turlin, Olivier Loréal.

**REVISTA:** Sci Rep 2021 Jul 9;11(1):14195. doi: 10.1038/s41598-021-93369-4.

**ABSTRACTO:** We have previously described a form of hepatocellular carcinoma (HCC) in non-cirrhotic liver (HCC-NC) developed by Peruvian patients. We analyzed the metallomic profile in hepatic tissues from two independent cohorts exhibiting HCC-NC. Clinical, histopathological data, and HCC and non-tumoral liver (NTL) samples of 38 Peruvian and 38 French HCC-NC patients, were studied. Twelve metals were quantified using ICP/MS: Mn, Fe, Cu, Co, Zn, As, Se, Rb, Mo, Cd, Pb, and Sn. Associations between metals and survival were assessed. Our data showed significant differences between cohorts. Mean ages were  $40.6 \pm 20$ ,  $67.5 \pm 9$  years old for Peruvians and French, respectively. Fifty percent of the Peruvian patients were positive for the HBsAg, versus 3% in French patients. Mn, Cu, Zn, As, Se, Rb, Mo, Cd, Sn metal concentrations were higher in NTL of Peruvians. Importantly, metal concentrations were lower in HCC areas compared to NTL tissues in both cohorts, except for Cu for which mean concentration was higher in HCC ( $p < 0.05$ ). Se concentration in HCC was associated with extended survival only in Peruvians. Our data, obtained in Peruvian and French HCC-NC cohorts, highlights similarity in the metallomic profile of HCC compared to NTL during the hepatic tumorigenesis in these specific groups of patients.

➤ **Primary squamous cell carcinoma of the sigmoid colon: a case report and literature review**

**INVESTIGADORES:** Martín Pascacio Fiori, Jéssica Alférez Andía, María Kapsoli Sánchez, Harold Benites Goñi.

**REVISTA:** Rev Gastroenterol Peru. Jan-Mar 2021;41(1):41-44.

**ABSTRACTO:** Primary squamous cell carcinoma of the colon is extremely rare. The etiology is poorly understood, and currently, there are different hypotheses about the origin of this malignant neoplasm. Here, we report a case of an 87-year-old male with a moderately-differentiated nonkeratinizing squamous cell carcinoma of the colon.