Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company’s public news and information website.

Elsevier hereby grants permission to make all its COVID-19-related research that is available on the COVID-19 resource centre - including this research content - immediately available in PubMed Central and other publicly funded repositories, such as the WHO COVID database with rights for unrestricted research re-use and analyses in any form or by any means with acknowledgement of the original source. These permissions are granted for free by Elsevier for as long as the COVID-19 resource centre remains active.
Prospective pilot proof-of-concept study. 68 patients with suspicious biliary strictures were studied, 14 with final diagnosis of PDAC. The performance of initial pathological diagnosis was compared with Bilemut at the time of first ERCP.

**Results:**
Initial histological diagnosis (FNA and/or cytology) was malignant in 64.3% (9/14) of PDAC.

Bilemut detected mutations in 85.7% (12/14) of all PDAC and 100% (5/5) of PDAC with initial non-malignant histological study. The combination of both techniques would have diagnosed 100% (14/14).

The median latency in the cases with an initial non-malignant diagnosis was 35 days (range 12-681) and to reach the diagnosis, 6 ERCP, 3EUS, 5CT, and 3MRI were required.

The most frequently detected mutations were KRAS (12/12) and p53 (7/12). In 25% (4/12), actionable mutations were detected (4 ERBB3 and 1 PIK3CA).

**Conclusions:**
Implementation of Bilemut can improve PDAC detection and reduce delays in the diagnosis, additional tests and risks in the clinical management of patients. Moreover, it can identify potentially actionable mutations for targeted therapies.

17. Study of risk factors for delayed gastric emptying after pancreaticoduodenectomy in 393 patients

**Aim:** To evaluate abdominal pain and quality of life (QoL) in a Basque-Navarrese CP cohort.

**Methods:**
Prospective multicenter registry of CP patients (PaN-Eus) using the AEG-RedCap platform. QoL data was collected through the validated questionnaire EQ-5D-5L and the visual analogue scale (VAS).

**Results:**
279 patients were included. Mean age was 61.4 (± 10.8), 78.9% males. 25.8% had pain of whom 68% required only first-stage analgesia. Patients with pain were younger (56 vs. 63.2, p < 0.001) and active smokers (63.9% vs 42.1%, p = 0.006). Pancreatic duct stricture (29.6% vs 15.8%, p = 0.018), obstructive lithiasis (19.4% vs 9.4%, p = 0.025), pancreatic fistula (11.3% vs. 1.5%, p = 0.001), ascites/pleural effusion (6.9% vs. 1.5%, p < 0.047) were associated with pain. A greater number of surgeries were performed in patients with pain (18.3% vs 7.4%, p = 0.003).

191 QoL questionnaires were included. Global health auto-perception measure with VAS was 69 (vs 77,5 national average), and low values were associated with smoking (p < 0.021) and active smokers (63.9% vs 42.1%, p < 0.025), postoperative bleeding (p < 0.03), and the appearance of postoperative complications.

63% of patients declared at least one problem in the 5 fields: mobility (39.9% vs 14.2%, p < 0.001), self-care (8.80% vs 6.22%, p < 0.004), daily activities (22.28% vs 15.03%, p < 0.001), pain/discomfort (50.72% vs 25.45% and anxiety/depression (29.53% vs 15.03%).

**Conclusions:**
Pain is the foremost complication of CP and these patients have a reduced QoL. The presence of pain and lower QoL is associated with smoking. QoL assessment should be included in the global management of CP patients.

16. The role of next-generation sequencing in bile of patients with biliary stenosis secondary to pancreatic ductal adenocarcinoma

Delayed gastric emptying (DGE) remains a concern after pancreaticoduodenectomy (PD). Multiple studies has been published related to the etiology, physiopathology or treatment, without clarifying the risk factors that would facilitate its appearance.

**Methods:**
A total of 393 pancreaticoduodenectomy were performed in our center between 2013 and 2021. We present the study of risk factors of DGE after PD in our patients. An univariate and multivariate analysis of risk factors for DGE were carried out using regression logistics analysis, including demographic and intraoperative variables, as well as the presence of postoperative complications.

**Results:**
Age over 60 years (p = 0.01), male sex (p = 0.03), and the appearance of pancreatic fistula (p < 0.05), postoperative bleeding (p < 0.02) or infectious complications (p < 0.05) were risk factors of DGE in univariate analysis. Multivariate analysis demonstrated that age older than 60 years (p = 0.021), pancreatic fistula (p < 0.05) and infectious complications (p < 0.034) were risk factors of DGE.

**Conclusions:**
The appearance of DGE after PD is related to various factors and our study showed that the age of the patients and the appearance of pancreatic fistula or infectious complications must be taken into account. Future studies should keep working in this direction to find out its real importance and to minimize the appearance of this complication.

18. Telemedicine and IPMN: Analysis of a new follow-up strategy during COVID-19 outbreak

**Aim:** To analyze the diagnostic potential of NGS of bile cfDNA (Bilemut) in biliary stenosis secondary to PDAC.

**Methods:**
Prospective pilot proof-of-concept study. 68 patients with suspicious biliary strictures were studied, 14 with final diagnosis of PDAC. The performance of initial pathological diagnosis was compared with Bilemut at the time of first ERCP.
A systematic review was performed for articles published up to August 2021, by searching electronic databases MEDLINE, Web of Science and EMBASE. Two independent investigators reviewed articles to determine eligibility and all disagreements were being resolved by consultations with three senior authors.

Results:
Among 3113 identified records, 92 studies were included in the qualitative synthesis. The following autoantibodies were identified: autoantigens-truncated laminin 511, annexin 511, antibodies against lactoferrin, anti-carboanhydrasel antibodies, antibody against alpha 2A amylose, antibodies against plasminogen-binding protein, antibodies against catrionic (PRSS1) and anionic (PRSS2) trypsinogens and pancreatic secretory trypsin inhibitor, other non-specific markers of autoimmunity (anti-nuclear antibodies, rheumatoid factor, anti-neutrophil cytoplasmic antibodies), Th1 vs Th2, Eosinophilia and allergic disorders, MAPK (mitogen-activated protein kinase) associated micro RNAs and serum N-glycans.

Conclusions:
To our knowledge, this is the first systematic review addressing biomarkers in AIP. Evolving research has recognized numerous biomarkers that could help elucidate the pathophysiological mechanisms of AIP, bringing us closer to the diagnosis of AIP and its differentiation from PC.