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**EP02D-042**

**THE IMPACT OF COVID-19 ON PANCREATICODUODENECTOMY OUTCOMES IN A HIGH-VOLUME HEPATOPANCREATOBILIARY CENTRE**

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During the COVID-19 pandemic, access to ‘planned’ surgical care was restricted as the health care system responded to the novel coronavirus. It remains unknown whether these limitations have had any impacts on outcomes of surgical oncology patients due to delay in presentation, treatment, or changes in the hospital milieu due to the pandemic.

We hypothesize that the pandemic resulted in diagnostic and therapeutic delays, leading to stage migration amongst patients with malignancies treated with a Whipple procedure.

This study is a retrospective review of adult patients with a gastrointestinal malignancy who underwent surgical exploration for a planned Whipple procedure at St. Joseph’s Health Centre between March 11, 2019, and March 11, 2021 (one year prior to the WHO declaration of a global pandemic and the first year thereafter). Primary outcome will be stage migration based on intraoperative findings of metastatic disease and stage of resected specimens. Secondary outcomes will be a comparison of peri-operative outcomes between the two years.

The data from this study will assist health care administrators and providers to optimize resource allocation and public health messaging in future health care crises.

**EP02D-043**

**KINETICS OF POSTOPERATIVE DRAIN FLUID AMYLASE VALUES FOLLOWING PANCREATODUODENECTOMY: NEW INSIGHTS TO DYNAMIC, DATA-DRIVEN DRAIN MANAGEMENT**

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Introduction: Despite being proposed as absolute clinically-relevant pancreatic fistula (CR-POPF) predictors following pancreatoduodenectomy (PD), the usefulness of dichotomous POD1 Drain Fluid Amylase (DFA) thresholds can be questioned.

Methods: Consecutive PDs performed at two high-volume institutions were analyzed (2014-2020). POD1→POD3 DFA trajectories were segregated as increasing, decreasing, inert (both POD1-3 DFA ≤20 U/L) and neutral (deviations ±10%). The association between distinct DFA trajectories and CR-POPF was analyzed, with the predictive capacity of DFA cutoffs being assessed by calculating sensitivity, specificity, positive and negative predictive values (NPV) and Youden index.

Results: Among 1305 undergoing PDs with both POD1 and POD3 DFA values available, median POD1 and POD3 DFA were 479 and 69 U/L, respectively. 75.6% decreased (median variation -83%), 6.4% increased (median variation +115%), whereas 2.5% displayed neutral DFA variation and 15.6% were inert. No correlation was found between DFA trajectories and intraoperative Fistula Risk Score or initial POD1-DFA, with the increasing DFA cohort displaying the lowest POD1-DFA (median 577 U/L; p=0.018 — excluding the inert DFA group), but the highest POD3-DFA (median 1822 U/L; p<0.001).

CR-POPFs occurred 2.5X as often when DFA increased versus decreased (24.1 vs 9.4%; Figure), while CR-POPF was almost nil in the inert group (0.5%). In the neutral-increasing DFA group, a POD3-DFA cutoff of 150 U/L yielded the highest Negative Predictive Value, with patients below this threshold (21.7%) demonstrating an eight-fold CR-POPF reduction (4.0 vs 31.1%; p=0.004). Within the decreasing DFA cohort, the POD3-DFA 30 U/L cutoff (highest NPV) identified 28.6% of patients displaying a seven-fold CR-POPF reduction (1.8 vs 12.5%; p<0.001).

Conclusions: Unique POD1→POD3-DFA trajectories are associated with different fistula rates, despite being independent of underlying risk and POD1 measurements. Trajectory-derived POD3-DFA cutoffs allow identification of patients eligible for safe early drain removal. Therefore, a dynamic DFA assessment adhering to kinetics identification represents a more sensible framework for pancreatic fistula forecasting compared to static POD1 values.

**EP02D-044**

**DISTAL FISTULA RISK SCORE (D-FRS): DESIGN AND MULTICENTER INTERNAL-EXTERNAL VALIDATION**

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