

AB103. P077. Preoperative biomarker panel distinguishes PDAC from IPMN

Hanna Seppänen, Nora Mattila, Harri Mustonen, Caj Haglund, Riitta Lassila

Johns Hopkins Hospital, Baltimore, USA

Background: Pancreatic ductal adenocarcinoma (PDAC) is one of the leading causes of cancer-associated deaths worldwide. It is associated with increased coagulation and venous thrombotic events (VTE). PDAC is often diagnosed late. CA 19-9 is the most used tumor marker for PDAC, but it is more useful in follow-up than diagnosis. Intraductal papillary mucinous neoplasm (IPMN) is a benign tumor of the pancreas, which can become malignant; however, pancreatic tumor surgery is extensive and should not be done needlessly. The aim of this study was to determine whether PDAC could be distinguished from IPMN preoperatively using coagulation biomarkers and whether combining them in a panel score aids diagnostics.

Methods: Patients (n=580) were operated during 2010–2015 in the Helsinki University Hospital. Of these patients 318 had preoperative coagulation variables available. Patients who had another tumor than PDAC or IPMN, had received

neoadjuvant treatments or another active cancer in the previous five years were excluded. There were 80 patients with a confirmed PDAC and 18 with IPMN. Of the PDAC patients 67 had stage I–III and 13 stage IV diseases. Blood cell counts, coagulation, inflammation, liver and tumor markers were analyzed 1–3 days preoperatively.

Results: FVIII, fibrinogen, CA 19-9, albumin, alkaline phosphatase and bilirubin conjugates were higher in both stage I–III and IV PDAC *vs.* IPMN ($P < 0.05$). FVIII was also higher in stage IV *vs.* stage I–III ($P < 0.05$). Combining CA 19-9 with FVIII, fibrinogen, albumin and bilirubin conjugates in a panel score increased the sensitivity and specificity for PDAC compared to CA 19-9 alone, as in a ROC curve, the AUC for the panel was 0.952 (95% CI, 0.900–1.000) for the panel and 0.804 (95% CI, 0.713–0.896) for CA 19-9 alone.

Conclusions: PDAC is associated with increased coagulation activity, especially FVIII, even without VTE. A combined panel score of FVIII, fibrinogen, CA 19-9, albumin, and bilirubin conjugates may provide a useful tool for PDAC diagnostics in the future.

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