CANCER

Epithelial subtype influences the prognosis of invasive IPMN

Invasive intraductal mucinous papillary neoplasms (IPMNs) are a heterogeneous group of neoplasms, but little is known about the epithelial subtypes of the precursor IPMNs from which these lesions arise and how they might influence prognosis. Mari Mino-Kenudson and colleagues constructed a multivariate, stage-matched Cox proportional hazard model to compare hazard ratio according to tumor type (both invasive carcinomas and intraductal components) in patients with invasive IPMNs.

Using a prospective database, of resected IPMNs, the group identified 61 patients with invasive carcinoma arising in IPMNs and compared them with 570 patients with pancreatic ductal adenocarcinoma (PDAC). “We retrospectively reassessed the epithelial morphology of an intraductal component (of IPMNs), the histology of an invasive carcinoma as well as other clinicopathologic variables that

may be associated with prognosis in each case,” explains Mino-Kenudson. “We then used our model to compare hazard ratio according to tumor type.”

Overall, invasive IPMNs were associated with fewer adverse pathologic features and improved mortality compared with PDAC. However, on subtype analysis, only colloid and oncocytic tumors, arising only from intestinal-type and oncocytic-type IPMNs respectively, showed significantly improved survival compared with PDAC. Tubular adenocarcinoma, primarily arising from the gastric background and often associated with branch-duct IPMNs, had worse overall survival than the other types, and was not significantly different to that of PDAC. Invasive carcinoma arising from gastric-type IPMNs were associated with significantly worse survival than those arising from non-gastric-type IPMNs.

“The prognosis of colloid-type and oncocytic-type invasive IPMNs seems to

Tubular adenocarcinoma arising in branch-duct type IPMN. Courtesy of M. Mino-Kenudson.

be better than that of tubular-type invasive IPMNs,” concludes Mino-Kenudson. “Our analysis also indicates that background epithelium has an important role in defining the biology and prognosis of invasive IPMNs.”

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