

Figure S1 Quantitative image characteristics for VMIs data of arterial and portal venous phase sets from four different monoenergetic levels, ranging from 40 to 70 keV, and PEI. (A) AD of Pancreatic lesion versus pancreatic parenchyma. (B) AD of the pancreatic duct versus pancreatic parenchyma. AD, attenuation difference; AP, arterial phase; keV, kiloelectron volts; PEI, polyenergetic images; PVP, portal venous phase; VMI, virtual monoenergetic images.

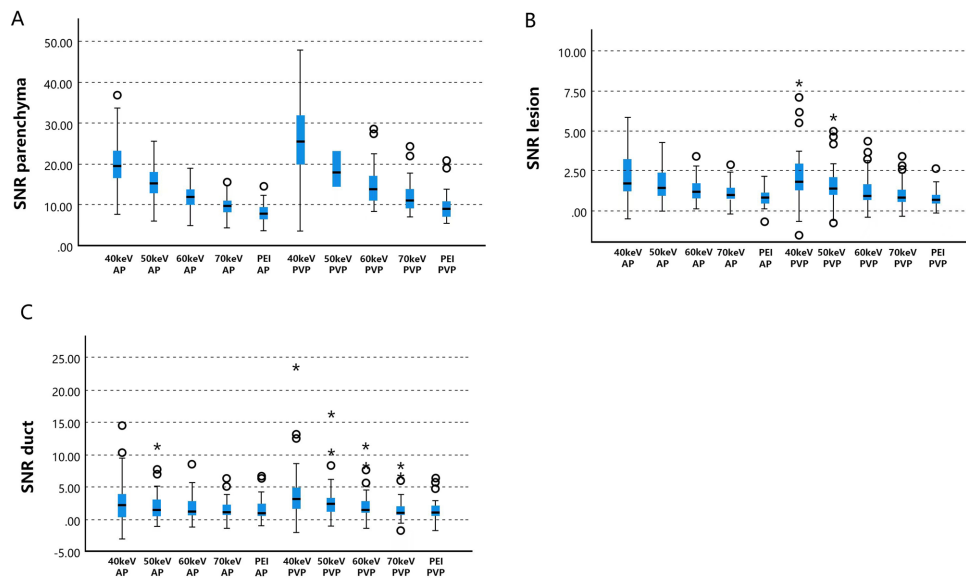


Figure S2 Quantitative image characteristics for VMI data of arterial and portal venous phase sets from four different monoenergetic levels, ranging from 40 to 70 keV, and PEI. (A) The SNR of pancreatic parenchyma. (B) SNR of pancreatic lesion. (C) SNR of the pancreatic duct. Data are presented in boxplots, where the whiskers extend to 1.5 times the IQR. Outliers are denoted as circles (1.5–3) and stars (>3). AP, arterial phase; IQR, interquartile range; keV, kiloelectron volts; PEI, polyenergetic images; PVP, portal venous phase; SNR, signal-to-noise ratio; VMI, monoenergetic images.

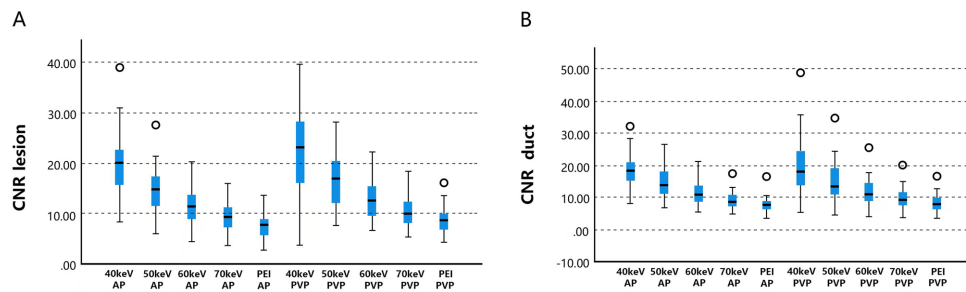


Figure S3 Quantitative image characteristics for VMI data of arterial and portal venous phase sets from four different monoenergetic levels, ranging from 40 to 70 keV, and PEI. (A) CNR of lesions versus pancreatic parenchyma. (B) CNR of pancreatic duct versus pancreatic parenchyma. AP, arterial phase; CNR, contrast-to-noise ratios; keV, kiloelectron volts; PEI, polyenergetic images; PVP, portal venous phase; VMI, virtual monoenergetic images.

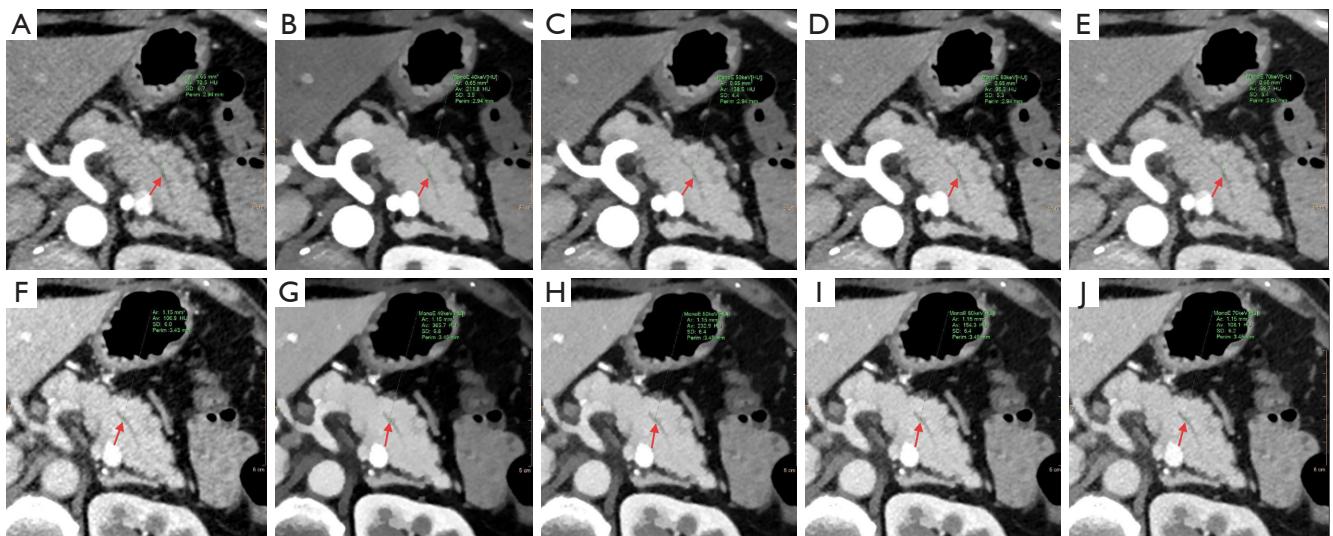


Figure S4 Axial CT images from a 56-year-old female with pathologically confirmed IPMN visually depict nondilated pancreatic ducts (indicated by the red arrow), despite inaccurate HU measurements. (A-E) PEI and VMI 40–70 during the arterial phase. Panel (F-J) PEI and VMI 40–70 during the portal venous phase. CT, computed tomography; HU, Hounsfield unit; IPMN, intraductal papillary mucinous neoplasm; PEI, polyenergetic images; VMI, virtual monoenergetic image.

Table S1 Technical comparison between conventional CT and DLCT

Feature	Conventional CT	DLCT
Detector structure	Single-layer scintillator	Two-layer scintillator
Spectral data	Not acquired	Simultaneous low/high energy
Scan protocol	Standard	Identical to conventional
Reconstruction output	Only polyenergetic images	PEI + VMIs (40–200 keV)
Radiation dose	Baseline	Equivalent

CT, computed tomography; DLCT, dual-layer spectral detector CT; keV, kiloelectron volts; PEI, polyenergetic image; VMIs, virtual monoenergetic images.

Table S2 Differences in the display of communication of pathologically confirmed IPMN cases (n=12) between DLCT and MRCP

MRCP	DLCT VMI40		Total
	Displayed	Not displayed	
Displayed	10	0	10
Not displayed	2	0	2
Total	12	0	–
P value	–	–	0.500*

Unless otherwise indicated, data are numbers of patients. For pathologically confirmed IPMN both CT and MRCP examinations, n=12. *, determined with McNemar's test. CT, computed tomography; DLCT, dual-layer spectral detector CT; IPMN, intraductal papillary mucinous neoplasm; MRCP, magnetic resonance cholangiopancreatography; VMI, virtual monoenergetic image.