Bile leakage after laparoscopic cholecystectomy demonstrated with $^{99m}$Tc-PMT hepatobiliary scintigraphy

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A 41-year-old woman underwent laparoscopic cholecystectomy for the treatment of gallstone and adenomyomatosis. One month after laparoscopic cholecystectomy, hepatobiliary scintigraphy was performed with $^{99m}$Tc-Sn-N-pyridoxyl-5-methyltryptophan (PMT) to evaluate the presence of a bile leak and/or other complication. A biliary extravasation was noted in the left upper quadrant within 60 minutes. At five hours post injection, a progressive accumulation of $^{99m}$Tc-PMT was noted in the lesser sac, the right and left paracolic gutter and in the pouch of Douglas. A diagnosis of biliary leakage was made. The patient underwent exploratory laparotomy to repair the leak from the cystic duct stump.

Key words: bile leakage, hepatobiliary scintigraphy, $^{99m}$Tc-PMT, laparoscopic cholecystectomy, gallstone