

Unusual early bile excretion from the liver in patients with fulminant hepatic failure as detected by Tc-99m-PMT hepatobiliary scintigraphy; Comparison with Tc-99m-GSA scintigraphy

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In two females (58 and 14 years old) with fulminant hepatic failure, Tc-99m-PMT hepatobiliary scintigraphy was used to evaluate intrahepatic bile stagnation, and Tc-99m-GSA scintigraphy to evaluate hepatic functional reserve. In both patients, Tc-99m-PMT hepatobiliary scintigraphy showed unusual early bile excretion into the extrahepatic bile duct and small intestine within the first 30 min of imaging. These findings contradicted typical findings of intrahepatic bile stagnation of fulminant hepatic failure. The receptor index and blood clearance index determined from dynamic acquisition data on Tc-99m-GSA scintigraphy suggested a markedly decreased hepatic functional reserve. These findings were compatible with fulminant hepatic failure. A discrepancy was observed between the findings of hepatobiliary scintigraphy and those of Tc-99m-GSA scintigraphy. The pathological state of early bile excretion from the liver into the bile duct should be considered in fulminant hepatic failure.

Key words: fulminant hepatic failure, technetium-99m PMT, hepatobiliary imaging, technetium-99m GSA, asialoglycoprotein receptor