

# SOME PROBLEMS OF HEPATO-BILIARY SCINTIGRAPHY WITH Tc-99m-PI

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We performed 33 times of hepato-biliary  
scintigraphies on 28 cases in infancy and childhood.  
In these, there were 7 control cases, 10 cases of  
congenital biliary atresia, 8 cases of congenital  
choledochal dilatation and 3 cases of neonatal  
hepatitis. Diagnostic capability and application  
method of this examination was discussed.

<sup>99m</sup>Tc-PI was far superior to <sup>131</sup>I-BSP in  
respect of clear image, low exposure dosis and  
short examination time.

In the case of CBD, sample informations were  
given pre- and post-operatively. They coincided  
very well with those of Echogram, DIC, PTC and ERCP.

In the case of CBA, very useful informations  
were given to show the post-operative biliary  
excretion.

As for the pre-operative examination of CBA,  
even the image in 20 hours was not enough to give  
the precise information in some cases. <sup>131</sup>I-BSP  
excretion test in 72 hours was still necessary  
for these cases.

Two cases of NH were misdiagnosed as CBA pre-  
operatively. Defferential diagnosis between CBA  
and NH was still difficult even with <sup>99m</sup>Tc-PI.

No side effect were observed with this nuclide.

# THE CLINICAL SIGNIFICANCE AND LINITATION OF THE HEPATO-BILIARY SCAN USING <sup>99m</sup>Tc-PI

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Summarizing our observations on 117 cases  
with hepato-biliary diseases, the indica-  
tion of this hepato-biliary scan for the  
diagnosis of the hepato-biliary disease is  
as follows.

- 1) The determination of a certain cause of  
the cold area of the liver detected by the  
conventional liver scan.
- 2) The demonstration of the changes of in-  
tra hepatic biliary tree, especially for  
detecting of the intrahepatic stone or mal-  
ignancy.
- 3) The illustration of the biliary system  
in the cases with inflammatory disease of  
the biliary system in which DIC could not  
demonstrate the biliary system.
- 4) The demonstration of the biliary system  
in the cases having moderate jaundice in  
which cases DIC could not demonstrate the  
biliary system.
- 5) The demonstration of the biliary system  
in the cases having hypersensitivity for  
the iodine agent.
- 6) The observation of the biliary passage  
after the biliary surgery.
- 7) The recognition of the biliary system  
after Co irradiation therapy on the hepato-  
biliary system.

This <sup>99m</sup>Tc-PI hepato-biliary scan was  
proved to be useful especially for detec-  
ting intrahepatic lesions but DIC was more  
suitable for the diagnosis of gall stone.

No side effect was noticed in this series  
of the study.