HH size (cm)	<1 (n=6)	1−1.9 (n=15)	2−2.9 (n=12)	≥3 (n=15)
planar	0%	20%	67%	93%
3H-SPECT	17%	80%	100%	100%

The overall Se of planar and 3H-SPECT was 52% and 83%, respectively. The smallest HH detected by 3H-SPECT was 0.9 cm while the largest HH that was not detected by 3H-SPECT was 1.4 cm (therefore, Se=100% for HH>1.4 cm). The Se of 3H-SPECT for HH (0.9~1.4 cm) was 43% (3/7). None of 25 NH was positive on either planar or SPECT imaging (specificity=100%).

In summary, our results are in close agreement with that reported by Ziessman et al (JNM 32:2086): Se is comparable despite a shorter acquisition time (20 min vs. 26.7 min). 3H-SPECT improves the Se of ^{99m}Tc RBC scan for detecting small HH without decreasing the specificity, and appears to be the procedure of choice for confirming the diagnosis of HH for lesions larger than 1.4 cm which are detected first on other imaging.

25. Hepatic-Arterial Flow Study and SPECT using ^{99m}Tc MAA in Embolized and Nonembolized Hepatocellular Carcinoma

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To compare the density of the functional microcirculation of hepatocellular carcinoma (HCC) with normal liver and to investigate the effect of hepatic-arterial oily chemoembolization (HAE).

Five HCC were proven by biopsy, and the rest clinically and radiologically. HAE were performed superselectively in five patients (all with nodular HCC) and HAA in the other three patients (nodular, multinodular and diffuse infiltrating HCC respectively). Each examination was performed within 1 hour following either hepatic arterial angiography (HAA) or HAE procedures on eight patients. The mixture of 2 cc normal saline and two to three mCi of ^{99m}Tc MAA was infused through a catheter. Sixty consecutive images were obtained for a flow study within a minute, and static images and SPECT followed by. We compared these radionuclide examinations with angiogram and computered tomography findings.

In the three patients who underwent HAA alone, radioactivity was markedly increased in tumors than in extratumoral liver after infusion of ^{99m}Tc MAA into hepatic-arterial catheter and the ratio of tumoral and extratumoral uptake (T/E ratio) were 6.5 or more (mean: 12.5). In four of the five patients who underwent HAE, T/E ratio were remarkably decreased (0.5~1.3) and reflux of radiotracer into the nonembolized hepatic segments were found. Embolized areas were better delineated in the radionuclide study than in HAA. In the other one who underwent partial embolization, antegrade flow into tumor site and strong radiouptake in the tumor was disclosed (T/E ratio: 7.0).

Hepatic-arterial flow study and SPECT using ^{99m}Tc MAA ia a valuable method to assess the embolization effect in HCC.

26. 정상인에서 지방식 투여와 CCK 연속주입에 의한 담낭수축의 비교 연구

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담낭 수축의 정량적인 평가를 위해서는 지방식의 경구 투여나 cholecystokinin (CCK)의 주입이 이용되어 왔으나 현재까지 담낭자극제의 투여방법 및 담낭 박출계수 (GBEF)의 정상범위가 정립되지 않은 상태이다. 최근 보고에 따르면 CCK의 투여방법에 있어서는 연속주입이