# Focal Nodular Hyperplasia: Pitfalls in Hepatic Scintigram

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=국문초록= :

### 간 국한성 결절상 충식중의 신티그램 감별 진단

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Hepatic Focal Nodular Hyperplasia(FNH)는 아주 드문 간 양성 질환으로 우연히 발견되는 수가 많다. FNH의 신티그램 소견은 다양하다. 즉 56%에서는 신티그램상 이상소견이 발견되지 않으며 17%에서는 냉소로 나타나고 나머지 7%에서는 열소로 나타난다.

저자들은 상복부 동통을 호소하는 25세된 여자 환자에서 간 신티그램상 이상소견을 발견할 수 없었던 FNH 1예를 경험하였기에 문헌고찰과 함께 보고하는 바이다.

Focal nodular hyperplasia (FNH) is a rare benign hepatic tumor usually discorvered serendipitously by an imaging procedure, performed for some other reason. FNH has a variable scintigraphic appearance ranging from normal to absent or increased activity. We present a case of FNH which showed normal colloid uptake on hepatic scintigram

### Case Report

A 25-year-old woman had a 4-month history of generalized weakness. On examination, there was tenderness at the right upper quadrant of the abdomen. Liver function tests were normal except for slightly elevated serum alkaline phosphate. Sonogram of the liver revealed a well defined irregular echogenic mass, measuring  $4\times5$  cm in diameter, in the medial segment of the left hepatic lobe(Fig. 1). CT scan demonstrated a well circumscribed mass within the medial segment of the left hepatic lobe(Fig. 2). A 99mTc-phytate hepat-

oscintigram showed no abnormal accumulation (Fig. 3).

## Discussion

FHN is a rare benign lesion of the liver, usually encountered in young woman<sup>1)</sup>. It is usually a solitary, well-circumscribed, non-capsulated mass



Fig. 1. Sonogram of the liver shows a well defined irregular echogenic mass(arrow) in the medial segment of the left lobe.

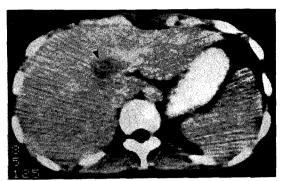


Fig. 2. CT scan demonstrates a well circumscribed mass(arrow) within the medial segment of the left hepatic lobe.

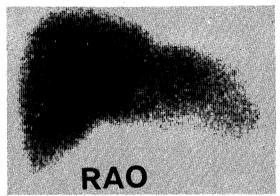


Fig. 3. Hepatoscintigram shows no abnormal accumulation.

within the liver. Histologically, it is composed of hepatocytes, Kupffer cells, bile duct elements and fibrous connective tissue, almost identical to those in the surrounding normal liver. FNH is a focal hepatic mass that contains Kupffer cells and thus normally concentrates colloid<sup>2,3)</sup>. This is the most important finding in the differential evaluation of hepatic parenchymal mass lesions.

Scintigraphic findings of FNH varies widely from normal to absent or increased activity<sup>4~11</sup>). The literature review showed that 56% of the 54 reported cases of FNH had abnormal hepatic scintigram. The lesions were cold in 37% and hot in 7%<sup>11</sup>).

The discovery of a focal liver mass, most often by sonography or CT, presents a considerable diagnostic problem. If the scintigram is normal and the detected lesion is larger than 3 cm, then the possibility of FNH is great. No other benign or malignant liver masses have been described as having these imaging characteristics.

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