To the Editor: Systemic AL amyloidosis is a rare disease the second most common type of amyloidosis after AA amyloidosis characterized by deposition of amyloid fibrils arising from immunoglobulin light chains [1]. Diagnosis can only be made by histochemical analysis of biopsy specimens. Amyloidosis AL may involve multiple organs (like kidneys, heart, bone marrow and other) and evaluation of the extent of amyloid deposition is often difficult [2].

A 53 years old man, who had been operated for spontaneous hepatic haemorrhage secondary to AL amyloidosis, was referred to us for pentavalent technetium-99m dimer-capto succinic acid (99mTc (V)-DMSA) scintigraphy for evaluation of the extent of amyloid deposition. In the 99mTc (V)-DMSA scintigraphy, there was diffuse increased uptake in the liver, spleen, and bone marrow (Fig. 1). Bone scintigraphy with 99mTc-methylene diphosphonate (99mTc-MDP) showed normal uptake in the same areas (Fig. 2). The liver and bone marrow biopsies showed the massive deposition of AL type amyloid protein (Fig. 3).

The deposition of amyloid protein may lead to malnutrition of many organs such as liver, heart, and kidney [3]. The iodinated serum amyloid P component and 99mTc labelled aprotinin scintigraphy are recently used amyloid imaging [4-6]. Uptake of 99mTc-MDP and 99mTc (V)-DMSA have been reported in the liver, spleen, heart, thyroid and the intestinal tract of patients with systemic amyloidosis [7-11]. The precise mechanism of amyloid affinity for 99mTc-MDP and 99mTc (V)-DMSA is not been fully elucidated. Several factors including expanded interstitial volume, the affinity of amyloid to calcium, increased blood flow and phosphate metabolism are suggested to play a role in the process [12-14]. While we have observed the increased uptake with 99mTc (V)-DMSA in effected organs, 99mTc-MDP bone scintigraphy was normal.

Bibliography

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