

Tc-99m nanocolloid scintigraphic imaging of intracranial meningeal extramedullary hematopoiesis in a patient with idiopathic myelofibrosis

Halil KAYA* and Sevim Sureyya CERCI**

**Department of Nuclear Medicine, Dicle University, School of Medicine, Diyarbakir, Turkey*

***Department of Nuclear Medicine, Suleyman Demirel University, School of Medicine, Isparta, Turkey*

Meningeal extramedullary hematopoiesis (EMH) is a rare finding in idiopathic myelofibrosis. Intracranial EMH is typically asymptomatic and sites are usually found by chance. Diagnosis of EMH is difficult, based on clinical circumstances and the use of different diagnostic imaging modalities, such as CT, MRI or radionuclide imaging. We present a case with intracranial medullary hematopoiesis due to idiopathic myelofibrosis diagnosed with Tc-99m nanocolloid scintigraphy. Cranium SPECT images that were performed with Tc-99m nanocolloid showed increased radiotracer uptake in the bilateral parietal, bilateral frontal and left occipital bones and especially in falx cerebri of sinus sagittalis superior. In Tc-99m MDP bone scintigraphy, increased osteoblastic activity in the left frontal and parietal bones, in shoulders, knee and ankle joints, and in both metatarsal bones were seen. After gadodiamid injection, T1 weighted MRI showed diffuse contrast increased in the meningeal areas surrounding the brain. A biopsy of the mass revealed extramedullary hematopoiesis composed of erythroblasts, mature and immature myeloid cells, and megakaryocytes. It was deduced that these described foci of EMH.

Key words: meningeal extramedullary hematopoiesis, idiopathic myelofibrosis, Tc-99m nanocolloid scintigraphy