EWING'S SARCOMA OF THE THIRD METATARSAL: A CASE REPORT AND REVIEW OF THE LITERATURE

Kristina Potocki^{1,2}, Maja Prutki^{1,2}, Marko Kralik², Maja Hrabak^{1,2}, and Ranka Stern Padovan^{1,2}

¹University of Zagreb, School of Medicine, Zagreb; ²Clinical Institute of Diagnostic and Interventional Radiology, Clinical Hospital Center Zagreb, Zagreb, Croatia

We report a rare case of Ewing's sarcoma involving the third metatarsal bone and spreading into adjacent bone in a 23year-old man, with special emphasis on imaging characteristics. On radiographs the tumor presented as a permeative lytic lesion with aggressive periosteal reaction and cortical destruction. Computed tomography and magnetic resonance imaging delineated the osseous and soft tissue extent of the tumor. A large soft-tissue mass around the involved bone was highly indicative of Ewing's sarcoma. Cortical invasion of the neighboring second metatarsal was seen only on magnetic resonance imaging. Increased uptake of technetium 99m methylene diphosphonate was noticed on bone scintigraphy. An early diagnosis of Ewing's sarcoma, even when it occurs in unusual locations, is necessary for adequate treatment and is of particular importance in terms of prognosis. The optimal imaging modality for the diagnosis of Ewing's sarcoma is magnetic resonance imaging since it allows accurate analysis of the softtissue component and visualization of possible local invasion of adjacent structures.

Key words: Ewing's sarcoma, magnetic resonance imaging, metatarsal bones, X-ray computed tomography.

Correspondence to: Maja Prutki, MD, Clinical Institute of Diagnostic and Interventional Radiology, Clinical Hospital Center Zagreb, Kispaticeva 12, 10000 Zagreb, Croatia. Tel +385-12388455; fax +385-12388250; e-mail maja.prutki@zg.t-com.hr Received March 14, 2006; accepted June 22, 2006.