Computerized Tomography as a Diagnostic Tool in Rhinology

Ljiljana Jovančević

University of Novi Sad, Faculty of Medicine, Hajduk Veljkova 1-7, 21000 Novi Sad, Serbia,

Clinical Centre of Vojvodina, ENT and HNS Clinic, Hajduk Veljkova 1-7, 21000 Novi Sad, Serbia
ljiljana.jovancevic@mf.uns.ac.rs

The structure of a person's paranasal sinuses is as unique as a set of fingerprints, so contemporary rhinology uses both computerized tomography (CT) and magnetic resonance (MR) as diagnostic imaging tools. CT is superior to MRI in demonstrating the bony anatomy, osseous margins, the extent and localization of inflammatory lesions and complications. CT has major limitations in the differentiation of soft tissue masses (for that indication MRI is superior to CT). CT of the nose and paranasal sinuses should not be used as the first, nor as the only diagnostic procedure, and should always be interpreted in accordance with the symptoms, clinical and nasal endoscopy findings. The timing of CT scanning, positioning of the patient's head, use of suitable CT-scan window, native scan or intravenous contrast media scan, analysis of all 3 projections, knowledge of how direct scanning is done. Proper observance and analyzing bony changes and mucosal thickenings, are just some of the very important issues that need to be kept in mind when analyzing CT scans. The radiation dose can be quite high, so indications for CT should always be reconsidered. Nasal endoscopy must be done prior to CT scanning. MR should be added and a radiologist consulted whenever in any doubt of correct diagnosis.

Key words: computerized tomography, imaging, rhinology