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**EARLY DETECTION OF PROGRESSION OF LUNG CANCER - COMPARISON
OF PET-MRI AND CT OF THE CHEST BASED ON THREE CASES**

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Computed tomography (CT) of the chest is an imaging test of choice in the diagnosis and monitoring patients after lung cancer treatment. Positron emission tomography in combination with magnetic resonance imaging (PET-MRI) is currently being evaluated for clinical effectiveness in the treatment of lung cancer. The aim of this study is to compare chest CT and PET-MRI in the early detection of lung cancer progression. A retrospective analysis of chest CT with contrast and PET-MRI examinations for detection of malignant lesions based on three instances of patients treated surgically and monitored after this treatment was performed. PET-MRI has been shown to be a much more beneficial test. This examination, at least 4 months in advance to CT, allowed for detection of changes requiring more detailed diagnosis (metastatic or recurrent). In the case of neoplastic changes, treatment was initiated earlier, which allowed for a better prognosis both in terms of the length and quality of life of lung cancer patients.