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Objective
Paget’s bone disease can be diagnosed and monitored using several methods including imaging with projectional radiography, single-photon emission computed tomography, positron emission tomography–computed tomography and magnetic resonance imaging. Radiography enables visualization of osteolytic, osteosclerotic or mixed changes in the skull (including mandible and also shading of the paranasal sinuses) and other bones, mainly spine, pelvis and femur. All of these changes together with osteolysis circumscripta should be differentiated with a variety of other lesions characteristic for hyperparathyroidism, inflammation, neoplasms and some types of anemia.

Methods
The study has a form of review of literature on the topic of diagnostics of Paget disease.

Results
Magnetic resonance imaging can show bone involvement in wider scope, especially hypervascularity and oedema of bone. Scintigraphy shows increased uptake of the radiotracer in the affected parts of bones with high sensitivity but low specificity. Whole body bone scanning can depict specific problems resulting from disease-related bone involvement, e.g. ocular disorders. The exact location of the radiotracer accumulation can be determined on the basis of SPECT/CT. Additionally PET/CT with different tracer (FDG or F18) enables finding focal changes of the disease but should be differentiated with a variety of other tumors. Even with this method, a false negative result was found in a person with Paget’s disease. Particular attention should be paid to pathological fractures and the development of osteosarcoma, which are possible to observe by all above methods.

Conclusions
The individual components of the multimodal imaging complement each other and are used for diagnosing and assessment the course of the disease and its treatment. Some examples of the application of the above methods described in the literature also present diagnostic problems, in particular regarding differential diagnosis.

Key words
Paget disease, diagnostics, hybrid imaging, radiography, magnetic resonance imaging