

## Positron Emission Tomography with <sup>18</sup>F-FDG in Staging and Evaluation of Treatment in Patients with Hodgkin's Lymphoma

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### Abstract

Proper and accurate staging of the disease helps in the selection of treatment strategy and planning for further prognosis of cancer in patients with Hodgkin's lymphoma (HL). Aim of the study was to examine the role of positron emission tomography (PET) with <sup>18</sup>F-FDG in the staging of patients with HL, a comparison of PET findings with the results of computed tomography (CT) and evaluation of the prognostic value of interim PET performed after 2–3 cycles chemotherapeutic treatment in patients with HL. Eighty nine patients who presented with newly diagnosed HL underwent conventional staging methods including CT as well as PET with <sup>18</sup>F-FDG. The sensitivity, specificity and diagnostic accuracy of PET in examination of pathological lymph nodes, extranodal organs and pathological process above and below the diaphragm were higher than that of CT. Significant decrease in the sensitivity of CT was revealed in the detection of the disease below the level of the diaphragm (68,5 %). In accordance with the PET results were changed stage and treatment in 10 (11,2 %) patients. After two or three cycles of chemotherapy, 66 patients had negative FDG-PET scans and 23 patients had positive scans. Three PET-negative patients relapsed. In the PET-positive group, nine patients progressed. In 14 (60,9 %) patients continued treatment resulted in complete remission. Survival analyses showed highly significant associations between early interim FDG-PET and progression free survival ( $p < 0,0001$ ).

**Key words:** Hodgkin's Lymphoma, Positron Emission Tomography with <sup>18</sup>F-FDG, Computed Tomography, Chemotherapeutic Treatment

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