

## **Squamous cell cancer of the head and neck - preoperative TNM staging with functional computed tomography imaging**

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Squamous cell cancer (SCC) of the head and neck, like other malignancies, should be reported with regard to TNM classification and treated accordingly. Sole anatomic imaging has its drawbacks, as early lesion detection often remains challenging, and non-neoplastic processes, especially inflammation, can mimic malignancies.

Computed tomography perfusion (CTp) is a technique that allows quick qualitative and quantitative evaluation of tissue perfusion by generating maps of blood flow (BF), blood volume (BV), and mean transit time (MTT). Perfusion CT has been found to be useful for non-invasive diagnosis of many diseases like cerebral ischemia and infarction, tumoral neo-angiogenesis, differentiation between malignant and benign process and for tumour response to radio- and chemotherapeutic treatment. Recent studies point, that CTp parameters may provide reliable information on vascularization of lymph nodes and may reflect angiogenic activity, helping to understand the changes occurring when malignant process invades the lymph node.

CTp is becoming a powerful tool in oncology and head and neck surgery. Depicting differences in tissue perfusion between different structures, shows promise in distinguishing malignant infiltration.

### **Biography**

Agnieszka Trojanowska has completed her Ph.D at the age of 26 years from Lublin Medical University and postdoctoral studies from the same university. She has been working as senior research fellow in Radiology Department in Lublin Medical University for last 10 years. She is a specialist in head and neck radiology, and at present the head of Polish Society of Head and Neck Radiology. She has published 38 papers in reputed journals and has been serving serving as a reviewer in 4 international journals.