FDG positron emission tomography allows early diagnosis of gall bladder cancer

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Researchers at the University of Granada and the Department of Nuclear Medicine, Hospital Virgen de las Nieves at Granada found that the metabolic imaging diagnosis technique -based on the analysis of a structural analog of glucose labeled with a positron-emitting compound (18F)- allows early diagnosis of gall bladder cancer, a relatively rare disease with high mortality rates among most patients suffering from it.

For the purpose of this study, 62 patients were subjected to this scanning method, which represents the largest sample of patients with gall bladder cancer ever studied by applying this type of technology - called FDG positron emission tomography. The study reported excellent results, significantly better than other structural imaging methods, and enabled more accurate and appropriate diagnosis and treatment of patients, which allows to avoid unnecessary procedures.

This study was conducted by Sc.D Carlos Ramos Font and directed by professors Nicolás Olea Serrano (UGR), José Manuel Llamas Elvira (UGR and Department of Nuclear Medicine, Hospital Virgen de las Nieves and Manuel Gómez Río (Department of Nuclear Medicine, Hospital Virgen de las Nieves).

Early Diagnosis Is Essential

The high mortality rate among patients with gall bladder cancer depends heavily on the lack of clinical data enabling early diagnosis of this type of tumors. This fact determines the survival of this type of patients. At the moment of establishing a diagnosis, an accurate staging will allow to chose the most appropriate treatment, as well as to optimize the use of the resources available. Imaging diagnosis of this pathology is essentially based on morphological techniques (echography, X-ray computed tomography and magnetic resonance imaging).

This new imaging diagnosis method (tomography made by emission of positrons with ^{18}F fluorodeoxyglucose) shows glucose metabolism in tissues. While the utility of this method has been proved in other types of tumors, its utility in gall bladder cancer had not been proved yet.

According to Granada University researchers, their study proves that positron emission tomography scanning wih FDG *"is a valid and accurate method for precise staging of patients with suspected gall bladder cancer, which allows to determine the appropriate therapy and treatment, and to optimize the use of the resources available".* Thus, they suggest that *"each patient with suspected cancer should be subjected to this type of imaging diagnosis, to determine the nature of such process".*

Source: http://canalugr.es/health-science-and-technology/item/43806

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