

**Natureza do trabalho:** Resumo

**TÍTULO**

NUCLEAR MEDICINE - THE IMPORTANCE OF THE METHOD OF SPECT / PERFUSION SCINTIGRAPHY BRAIN IN DIAGNOSTIC ACCURACY OF NEUROLOGICAL DISEASES

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**RESUMO**

**Introduction:** The SPECT / scintigraphy study Cerebral is a method in nuclear medicine, which has importance as the diagnosis of neurological diseases. Thus the Spect / Cerebral scintigraphy allows accurate functional evaluation in brain color images highlighting such diseases through the concentration of a radiopharmaceutical acting on amounts of existing neurons. **Literature Review:** The method of SPECT Cerebral Perfusion scintigraphy or -mn, uses a small amount of radioactive material where they are called "radioactive tracer", which are necessarily marked by radioisotopes such as technetium 99m (Tc 99m). According NOBREGA, technetium is gamma radiation emitter  $\gamma$ , so it does not have corpuscular emission<sup>1</sup>. Thus the examination will allow a functional assessment of blood flow through the brain, where it detects functional abnormalities by intermediate concentrations of these soluble radiopharmaceuticals on the target<sup>3</sup>. According to Thrall, after administration of the radiopharmaceutical, the patient should be kept still while lasts the test to start of image acquisition. This method is important in the diagnosis of neurological diseases to be of high resolution and have a great detailing these alleged neurons in the brain. These accurate and early diagnosis of Cerebral Spect exalts itself in active colors dementias such as Parkinson's and Alzheimer's, epilepsy, brain (stroke), trauma and psychiatric disorders as well as depression stroke<sup>2</sup>. There is no prior preparation for the exam; no carries health risks, bad is contraindicated for pregnant women and breast-feeding women due to radiation<sup>4</sup>. **Conclusion:** In view of this the Spect / Cerebral perfusion scintigraphy is performed by applying a fat-soluble radiopharmaceuticals the vein, resulting in blood flow, so after acquiring the images small or large concentrations of accumulated radiotracer or not can be seen on neurons in the brain, which consequently back in high resolution diagnostics in neurological diseases.