

**BRAIN VESSELS SCINTIGRAPHY WITH TECHNETIUM-99 m
IN RECOVERY OPERATION WORKERS OF THE CHERNOBYL NPP
ACCIDENT CONSEQUENCES**

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Recent studies have demonstrated that cerebrovascular diseases are more frequent among recovery operation workers of the Chernobyl NPP accident consequences (liquidators). This study was designed to investigate cerebral blood flow in liquidators by radiopharmaceuticals.

We used radiopharmaceutical imaging agent – Ceretec (Technetium-99m Exametazime) for cerebrovascular diseases diagnostic in 19 liquidators. This procedure may be used in detection abnormalities of regional cerebral blood flow resulted from stroke and other cerebrovascular diseases, epilepsy, Alzheimer's disease and other forms of dementia, transitive ischemic attack, migraine and tumors of the brain.

In other group we performed the brain vessels scintigraphy by Technetium-99m Pertechnetate (370 MBq) administration to evaluate the cerebral blood flow in 15 males before and after the treatment course including medicines and low-level laser therapy. This technique is indicated symmetry disorders of cerebral blood flow, abnormalities of cerebral vessels caused by atherosclerosis, venous dysfunction, tumors of the brain.

There were not side-effects following administration of radiopharmaceuticals. We detected cerebral blood flow decrease in different regions of brain, small zones of hypofixation of Technetium-99m Exametazime. We observed symmetry disorders of cerebral blood flow, abnormalities of cerebral vessels caused by atherosclerosis, venous dysfunction by Technetium-99m Pertechnetate. There was the positive tendency in brain vessels flow after 10-days treatment course.

These methods may be used to determine pathogenesis of cerebral disorders associated to atherosclerosis or venous dysfunction, resulted from ischemic attack and hypertension. The brain vessels scintigraphy allows to assess the effect of medicines or low-level laser therapy and to design the program in different stages of treatment.