

Summary:

Pheochromocytoma – tumor of chromaffin cells represents a rare cause of hypertension resulting from increased catecholamine secretion. Concentration of catecholamines and their metabolites can be used in diagnosis of pheochromocytoma as tumor markers. Metanephrines and vanilmandelic acid are ranked among metabolites of catecholamines. We put into practice determination of normetanephrine, metanephrine and 3-methoxytyramine in plasma and urine by chromatographic method with electrochemical detection.

Samples were mixed with 4-hydroxy-3-methoxybenzylammoniumchlorid as internal standard. A method included solid-phase extraction (SPE) with Oasis HLB sorbent in preanalytical phase. Quantification of metanephrines was carried out by HPLC method with electrochemical detection.

Validation of procedure was necessary after installation of conditions. The first we have been measured calibration of method and than we tested its preciseness (intraassay and interassay), correctness and recovery.