Phaeochromocytomas are tumors predominantly rare to chromaffin tissue in adrenal glands' medulla. Tumors in the extra-adrenal chromaffin tissue are called paragangliomas. Phaeochromocytomas cause secretion of high amounts of catecholamines, which can lead to fatal consequences if not medically treated. The aim of this thesis is to summarize the so far known facts about this severe disease in a written review. The first part of the study focuses on issues of phaeochromocytoma research and lists general information about these tumors and their clinical manifestations. The importance of genetic influence in connection with treatment strategies for patients with phaeochromocytoma is also discussed. The second part of the thesis summarizes procedures and methods used in laboratory diagnostics of phaeochromocytomas. The conclusion briefly describes the possibilities of tumor localization using imaging technologies and procedures of subsequent treatment of patients with phaeochromocytoma.