

Abstract

Normal pressure hydrocephalus (NPH) is an important part of the differential diagnosis of the causes of cognitive deficit, gait disorder and incontinence in elderly patients. This is especially true for idiopathic normal pressure hydrocephalus (iNPH), to which this thesis is dominantly devoted. A number of factors contribute to the course of the disease, therefore a comprehensive approach evaluating multiple variables accompanying the disease, comorbid diseases or considered diseases in the differential diagnosis, as well as a comprehensive approach to therapy, which contains much more than just the implantation of a derivation system for the drainage of cerebrospinal fluid, can improve, not only, the quality of life of these patients. The mainstay of the dissertation thesis are two first-author articles. The first study deals with morphological parameters obtained during MRI examination and their ability to predict improvement in gait after shunt implantation in iNPH patients. We evaluated the predictive performance of score for evaluating disproportionately enlarged subarachnoid space hydrocephalus (DESH score), callosal angle and cingulate sulcus sign against the reference standard in the form of functional testing - lumbar infusion test (LIT) and external lumbar drainage (ELD). In the second study, we observed the changes in all the main symptoms of iNPH using a palette of examinations in patients who underwent implantation of a modern shunt system with an adjustable gravity valve, described the first results and defined suitable changes in the initial setting of the valve.