

Abstract from the
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14:30 - 15:30	MO.09	Freie Themen: Endoskopie
16:00 - 17:00	MO.10	Freie Themen: Tumoren I

MO.09.05

Clinical experience with 88 shunt patients using gravitational valves of the new generation

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Objective: One of the continuing major problems of hydrocephalus shunts is overdrainage in the upright body position. There are different hydraulic requirements for the function of hydrocephalus valves in the horizontal and vertical body position. In spite of many advantages of the new valves the clinical course is often unsatisfactory. Gravitational valves of the new generation such as Gravity Compensating Accessory (GCA) and Aesculap Miethke Shunt Assistant (MSA) seem to be more effective in solving this problem. We would like to present the results of hydrocephalus patients who additionally received a gravitational valve of the new generation.

Methods: In 88 patients hydrostatic valves (HV) were implanted. The hydrostatic valves (HV) we used were low pressure in 69 patients, medium pressure in 9 patients and high pressure in 6 patients. 4 patients were treated with a Hakim Lumbar valve. In 49 Patients the implantation of the HV were performed during the first shunt implantation. 33 Patients had a long medical history with slit ventricle syndrome or overdrainage symptoms. Some of them formerly underwent up to 59 shunt operations.

Results: In spite of a negative selection, 60 patients showed excellent or good results and 18 patients showed remarkable improvement. Two remained unchanged. In 8 cases we observed latent or manifest underdrainage due to implantation of a too high pressure range or high intraabdominal pressure. There were 26 complications in the group of patients with a long history of hydrocephalus with multiple shunt operations and 5 complications in the group of patients with HV as part of their first shunt implantation.

Conclusion: Even in extremely difficult cases overdrainage could be avoided. Gravitational valves as a supplement to differential pressure valves seem to be the best available solution for treatment of patients with expected or manifest overdrainage complications. There are some technical requirements which have to be considered in the implantation of HV.