



[Return to the search results](#)

ARTICLE LINKS:

[Fulltext](#) | [PDF \(270 K\)](#) | [Permissions](#)

Outcome of Idiopathic Normal-Pressure Hydrocephalus After Surgery With Gravity Valves.

Neurosurgery Quarterly. 14(3):119-126, September 2004.

Meier, Ullrich MD, PhD

Abstract:

The goal of this study was to determine whether hydrostatic valves are superior to conventional differential-pressure shunts in patients with normal-pressure hydrocephalus (NPH) with regard to the postoperative results of treatment and possible complications. From September 1997 to January 2002, 60 patients with idiopathic NPH were treated by surgical implantation of a hydrostatic valve (Miethke dual-switch valve [M-DSV]) at the Unfallkrankenhaus Berlin. The results of the clinical examination, the intrathecal infusion test, and the cerebrospinal tap test were used as aids in the decision-making process regarding the shunt operation. In a prospective study, the clinical examination and a computed tomography scan were carried out in all patients before surgery, after surgery, and 1 year after the operation. One year after the shunt operation, the clinical picture was very good for 33% of the patients, good for 33%, satisfactory for 17%, and poor for 17%. Three dislocations (5%) of ventricular or abdominal catheters and 3 valve infections were found as valve-independent complications. As valve-dependent complications, underdrainage was found in 4 patients (7%) and radiologic signs of overdrainage were found in 2 patients (3%), whereas 1 patient (1.7%) showed symptomatic overdrainage. At 20%, the rate of postoperative complications is still relatively high. The setting pressure of the M-DSV did not correlate with the postoperative results of treatment. According to our experience, hydrostatic M-DSVs are superior to conventional differential-pressure shunts without an additional gravity unit, especially with regard to the treatment of patients with idiopathic NPH, in the postoperative results of the treatment and the incidence of possible complications. With differential diagnosis and therapy, clinical improvement can be achieved for 83% of such patients.

(C) 2004 Lippincott Williams & Wilkins, Inc.

Copyright © 2005, Lippincott Williams & Wilkins. All rights reserved.

Published by Lippincott Williams & Wilkins.

[Copyright/Disclaimer Notice](#) • [Privacy Policy](#)

 [Subscribe to RSS feed](#)

utrdc-pt02
Release 4.0