M.scio

https://www.miethke.com/en/produkte/sensortechnologie/mscio

Between June 2016 and August 2021, 14 patients over the age of 18 with different diagnosis underwent VP-shunt surgery and received Miethke M.Scio ® sensor.

Results: Patients suffered from idiopathic intracranial hypertension (IIH) (n=3), obstructive hydrocephalus due to tumors (n=4) as well as malformations (n=5). Headaches (71%) and visual impairment (50%) were the most common symptoms before surgery and 65% of the symptoms were improved after surgery. In total, 25 measurements were made and 11 of these led to changes of the shunt settings. Postoperative measurements were made in 8 patients and the most common indication of ICP measurement was headache and/or control of the shunt settings.

Conclusion: The Miethke M.Scio® is a safe and valuable device to use in shunt-treated patients in particular those expected to need assessment of ICP monitoring postoperatively. Repeated ICP measurements can also assist in personalized adjustment of the shunt setting to optimize CSF flow in this diverse patient group. Future studies should include a standardized protocol with ICP measurements correlated to symptoms and cause of CSF disturbances in order to provide better understanding of the dynamics of the ICP in each patient [1)].

1)
Jirlow U, Arvidsson L, Magneli S, Cesarini K, Rostami E. Evaluation of Miethke M.Scio device implantation for intracranial pressure monitoring in patients with cerebrospinal fluid disorders. World Neurosurg. 2023 Jul 26:S1878-8750(23)01043-4. doi: 10.1016/j.wneu.2023.07.102. Epub ahead of print. PMID: 37506838.