Flow regulated valve

see Integra NPH low flow valve.

see Medtronic CSF Flow Control Valve.

Surgical intervention with flow regulated valve and differential pressure valve shunts remains controversial. Knowledge about the benefits and harms of these interventions is limited.

In a review to summarize the evidence on benefits and harms of flow-regulated versus differential pressure-regulated shunt valves for adult patients with NPH, based on reported findings of randomised clinical trials.

SEARCH METHODS: The ALOIS ; MEDLINE (from 1950) (Ovid SP); EMBASE (from 1980) (Ovid SP); CINAHL (from 1980) (EBSCOhost); PsycINFO (from 1806) (Ovid SP); LILACS (from 1982) (BIREME); ClinicalTrials.gov; Umin Japan Trial Register; WHO portal;The Cochrane Library's Central Register of Controlled trials (CENTRAL); ISI Web of Knowledge Conference Proceedings; Index to Theses; and Australasian Digital Theses were searched until May 16, 2012.The search terms used were NPH, “normal pressure hydrocephalus,” iNPH, idiopathic normal pressure hydrocephalus, sNPH, and “secondary normal pressure hydrocephalus.”

We planned to include randomised clinical trials comparing flow-regulated versus differential pressure-regulated shunt valves. DATA COLLECTION AND ANALYSIS: Two authors with expert knowledge within the field independently reviewed studies for eligibility, assessed risk of bias, and extracted data. MAIN RESULTS: No randomised clinical trials comparing flow-regulated versus differential pressure-regulated shunt valves were found.

There is no evidence from randomised clinical trials indicates that flow-regulated and differential pressure-regulated shunt valves differ with regard to clinical outcome, shunt failure, or intervention risks. Randomised clinical trials are needed that take into account the large number of VP shunts implanted each year in patients with NPH [1)].

1)
Ziebell M, Wetterslev J, Tisell M, Gluud C, Juhler M. Flow-regulated versus differential pressure-regulated shunt valves for adult patients with normal pressure hydrocephalus. Cochrane Database Syst Rev. 2013 May 31;(5):CD009706. doi: 10.1002/14651858.CD009706.pub2. Review. PubMed PMID: 23728696.