Orbis-Sigma Valve

- Does Valve Design Affect the Tensile Strength of Ventriculoperitoneal Shunts?
- Ventriculoperitoneal shunt failures at Red Cross War Memorial Children's Hospital
- A comparison between flow-regulated and adjustable valves used in hydrocephalus during infancy
- Prospective multicenter studies in pediatric hydrocephalus
- Ventriculo-peritoneal shunting is a safe and effective treatment for idiopathic intracranial hypertension
- Shunt-dependent hydrocephalus: management style among members of the American Society of Pediatric Neurosurgeons
- Hydrocephalus treatment in children: long-term outcome in 975 consecutive patients
- Fetal therapy--evaluation of ventriculo-amniotic shunts in the treatment of hydrocephalus

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The Orbis-Sigma Valve is a medical device used in the treatment of hydrocephalus,

It is a type of flow-regulating valve, which means it regulates the flow of CSF out of the ventricles of the brain, as opposed to traditional valves that regulate based on pressure.

The Orbis-Sigma Valve was first introduced in 1987 and is manufactured by Integra LifeSciences. It is designed to automatically adjust the flow of CSF based on the patient's needs, reducing the risk of complications associated with overdrainage or underdrainage.

Here are some of the key features of the Orbis-Sigma Valve:

Flow-regulation: The valve automatically adjusts the flow of CSF based on the patient's needs, reducing the risk of complications associated with overdrainage or underdrainage. Programmable: The valve can be programmed to specific settings based on the patient's individual needs. MRI-compatible: The valve is safe for use in magnetic resonance imaging (MRI) machines. The Orbis-Sigma Valve is a complex medical device and should only be implanted by a qualified neurosurgeon. It is important to discuss the risks and benefits of this device with your doctor to determine if it is the right treatment option for you.

Orbis-Sigma Valve for idiopathic intracranial hypertension

To determine the outcome of ventriculo-peritoneal shunts as a treatment for idiopathic intracranial hypertension (IIH) Materials and Methods: Retrospective case series of 28 patients with IIH and evidence of raised intracranial pressure (ICP) who underwent shunt insertion. Patients were identified from a prospectively updated operative database. A case-notes review was performed and data on type of shunt, pre- and post-operative symptoms, ophthalmological findings and post-operative complications were recorded.

Results: All patients had symptoms of IIH that had failed medical management. Twelve patients had previous lumbo-peritoneal shunts and 2 patients had previous venous sinus stents. All patients had evidence of raised ICP as papilloedema and raised CSF pressure on lumbar puncture. Twenty-seven

patients received a ventriculo-peritoneal shunt and 1 patient a ventriculo-atrial shunt. Twenty-six patients received Orbis Sigma Valves and 2 patients Strata valves. At follow-up all patients (100%) had improvement/resolution of papilloedema, 93% had improved visual acuity and 84% had improved headaches. Mean time to last follow-up was 15 (range 4-96) months. Complications occurred in 3 patients (11%): 2 patients required revision of their peritoneal catheters and 1 patient had an anti-siphon device inserted.

Conclusions: Previous literature reported a ventricular shunt revision rate of 22-42% in the management of IIH. We demonstrate ventriculo-peritoneal shunts to be an effective treatment with a revision rate of 11% compared to the previously reported 22-42% [1)]

Unclassified

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