Ventriculoperitoneal shunt placement technique

- Sleep apnea in patients with achondroplasia associated with foramen magnum stenosis
- Endoscopic assessment of ventricular anomalies diagnosed by MRI in hydrocephalus associated with myelomeningocele
- Surgical Nuances in Ultrasound-Guided Percutaneous Distal Catheter Placement in Pediatric Ventriculoatrial Shunts
- A novel perspective on dissemination: somatic metastasis of germ cell tumors from the central nervous system
- A Case Report on Ventriculoperitoneal Shunt Insertion Using a Novel Modification: The Receded Shunt Technique
- Suboptimal Immunisations in Children With a Ventriculoperitoneal Shunt-Can We Do Better?
- Determinants of adult Ventriculoperitoneal Shunt failure: Insights from a large neurosurgical centre
- Bedside Sonographic Ventricular Monitoring Through a Sonolucent Cranial Implant for Weaning of External Ventricular Drain After Aneurysmal Subarachnoid Hemorrhage

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Hair shaving away from the head incision site (some surgeons use minimal shaving)

Clean the skin with an antiseptic

Apply a sterile fenestrated drape over the incision sites (head, neck, chest, and abdomen)

Fenestrated drape the patient

Make a “U or C” shaped skin incision over the entry point where the burr hole is to be performed for the introduction of the ventricular catheter. If the frontal approach will be used, then Kocher’s point is used which is an entry point that is 11 cm superior and posterior from the nasion, 3 cm lateral to midline along the mid pupillary line, and 1 to 2 cm anterior to the coronal suture; catheter should then be passed to a depth of 5-5.5 cm.

For a parieto-occipital approach, Keen’s point is used which is approximately 2.5 to 3 cm superior and posterior to the pinna and the catheter should then be passed to a depth of 4 to 5 cm or until reaching the trigone of the ipsilateral lateral ventricle, but sometimes it is aiming toward the frontal horn of the lateral ventricle.[13] Alternatively, Dandy's point can be used which is 3 cm above the inion and 2 cm left or right to the midline.

Burr hole is performed at the desired entry point and the dura incised. A small entry point in the cortex is coagulated and incised.

Ventricular catheter is introduced directed into the ventricle and cut to the appropriate pre-measured

length

CSF samples are collected

The ventricular shunt is connected to the valve and secured with a silk tie.

Peritoneal catheter placement

see Peritoneal catheter placement.

Case reports

Tiongson et al. from the Department of Surgery, Section of Neurosurgery, Jose R. Reyes Memorial Medical Center, Manila, published in Cureus a single-patient case report — specifically a descriptive observational study without controls, comparisons, or inferential statistics [1]. documents the use of a minor surgical modification (“receded shunt technique”) during a ventriculoperitoneal shunt revision in one patient and reports subjective cosmetic and comfort outcomes without quantitative measures or follow-up beyond the immediate postoperative setting:

1. Pseudonovelty Disguised as Innovation

The so-called “receded shunt technique” is nothing more than a cosmetic cranioplasty maneuver, well-known to any neurosurgeon experienced in pediatric, oncological, or trauma reconstruction. Branding this minor bone contouring as a “technique” borders on academic inflation and reveals a lack of awareness of surgical literature.

2. No Evidence, No Validation

There is no quantitative assessment of the claimed benefits. No pain scales, no validated patient satisfaction surveys, no pre- and post-op photos, no long-term outcomes. The entire justification is subjective and unmeasured. Worse, no complications are addressed, such as:

Thinner bone creating risks of valve dislodgement or skin breakdown.

Durability of the bone recess over time.

3. Misguided Prioritization of Aesthetics over Function

The shunt was revised not for cosmetic reasons, but due to malfunction. Yet the entire focus of the report is on cosmesis, neglecting discussion on:

What caused the original shunt failure?

Was the receded technique associated with a better functional outcome?

This is a case of cosmetic opportunism overshadowing clinical relevance.

4. Lack of Scientific Rigor

This report is emblematic of what plagues open-access platforms like Cureus:

No statistical analysis

No references to comparable cranial recessing practices (e.g., Medpor use, burr-hole cover systems)

No ethical discussion of performing a cranioplasty-style procedure for aesthetic benefit in a patient with shunt dysfunction.

5. Unjustified Enthusiasm

The final statement—“a simple modification such as this can provide a significant improvement to this age-old neurosurgical procedure”—is laughably disproportionate to the presented data (one case, one opinion, no evidence).

 Conclusion: Cosmetic Engineering Masquerading as Neurosurgical Progress

This case report takes a mundane, low-impact surgical variation and frames it as innovation. With no data, no rigor, and no relevance beyond anecdotal comfort, it contributes little to the neurosurgical literature, and much to the growing category of “technique inflation” where trivial adjustments are paraded as transformative.

It should serve as a cautionary tale for what happens when cosmesis eclipses clinical substance in surgical reporting.

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Tiongson CMED, Navarro JEV, Malilay ORM. A Case Report on Ventriculoperitoneal Shunt Insertion Using a Novel Modification: The Receded Shunt Technique. Cureus. 2025 Jun 15;17(6):e86083. doi: 10.7759/cureus.86083. PMID: 40524847; PMCID: PMC12168781.