A 64-yr-old male presented with an extruding hydrocephalus shunt valve and chronic, open scalp wound. The shunt valve was removed and temporary shunt externalization was performed. He received 2 wk of culture-directed antibiotics. Next, a contralateral craniectomy was performed allowing a new shunt valve system to be implanted within a low-profile, customized cranial implant. All efforts were made, at the patient's request, to decrease the high-profile nature of the shunt valve contributing to his most recent complication.

First-in-human implantation was performed without complication. Postoperative shunt identification and programming was uncomplicated. The high-profile nature of the shunt valve was decreased by 87%. At 10 mo, the patient has experienced no complications and is extremely satisfied with his appearance.

This first-in-human experience suggests that a high-profile hydrocephalus shunt device may be safely integrated within a customized cranial implant [1].

1)
Gordon CR, Wolff A, Santiago GF, Liebman K, Veznedaroglu E, Vrionis FD, Huang J, Brem H, Luciano M. First-in-Human Experience With Integration of a Hydrocephalus Shunt Device Within a Customized Cranial Implant. Oper Neurosurg (Hagerstown). 2019 Feb 7. doi: 10.1093/ons/opz003. [Epub ahead of print] PubMed PMID: 30753624.