Ventriculosternal Shunt

A patient who underwent ventriculosternal shunting, a novel procedure, is presented with durable and successful outcomes.

A patient with end-stage renal failure and heart failure with recurrent pleural effusion suffered from post-subarachnoid hemorrhage communicating hydrocephalus. Because of the need for continuous ambulatory peritoneal dialysis and the risk of introducing excessive cardiac preloading, conventional shunting was relatively contraindicated. Ventriculosternal shunting was performed by adopting the cancellous matrix of the sternum as the anatomic receptacle for intraosseous cerebrospinal fluid absorption. After placement of the ventricular catheter in the usual manner, the distal end was inserted into the sternum.

There was demonstrable clinical and radiological improvement in hydrocephalus by ventriculosternal shunting. Cerebrospinal fluid intraosseous absorption by this novel procedure translated into both physical and cognitive recovery. The procedure was tolerable, effective, and durable, with the patient suffering no complications 3 years after the procedure.

Ventriculosternal shunting for the management of hydrocephalus is a feasible, safe, and durable surgical treatment option for selected patients when conventional procedures are contraindicated [1].

1)
Ming Woo PY, Hung Pang PK, Chan KY, Ching Kwok JK. Ventriculosternal Shunting for the Management of Hydrocephalus: Case Report of A Novel Technique. Neurosurgery. 2015 Sep;11 Suppl 3:371-5. doi: 10.1227/NEU.0000000000000861. PubMed PMID: 26114598.