Around 1960, Basil Hirschowitz, an American gastroenterologist, developed a flexible endoscope using fiberoptics [1].

In intraventricular surgery using a flexible endoscope, the lesion is usually aspirated via the working channel. However, the surgical view during aspiration is extremely poor because the objective lens is located adjacent to the working channel.

To address this issue, Yamashiro et al. developed a novel neurosurgical procedure using an angiographic catheter. In this procedure, the catheter is inserted into the working channel, and the lesion is aspirated through the catheter. Besides, continuous intraventricular irrigation is performed via the gap between the catheter and the working channel.

This procedure maintains a clear view during surgery and reduces complications [2].

1)
Linder TE, Simmen D, Stool SE. Revolutionary inventions in the 20th century. The history of endoscopy. Arch Otolaryngol Head Neck Surg. 1997 Nov;123(11):1161–1163.
2)
Yamashiro K, Higashiguchi S, Hayakawa M, Hirose Y. How I do it: endoscopic evacuation of intraventricular lesions using a flexible endoscope in combination with an angiographic catheter. Acta Neurochir (Wien). 2024 Jan 29;166(1):44. doi: 10.1007/s00701-024-05948-9. PMID: 38282032.