In 1910, Oskar Hirsh, an otolaryngologist, introduced a transseptal, transsphenoidal approach to the pituitary gland [1] an operation which is still in use today. Cushing performed his first pituitary operation in 1909 [2] using Schloffer's method but then rapidly adopted Hirsh's approach adding a sublabial incision and a headlamp to improve visualization of the sella. Using this approach he performed 231 operations with a 5.6% mortality rate [3] [4].

Hirsch continued to perform transphenoidal hypophysectomy and by 1937 had performed the operation on 277 patients with a mortality rate of 5.4% [5]. After being displaced from Austria by the Nazis shortly thereafter, he emigrated to the US and continued to operate at Massachusetts General Hospital in collaboration with a neurosurgeon, Hannibal Hamlin. The other surgeon who kept the technique alive was Norman Dott, a British neurosurgeon who learned the approach in 1923 from Cushing and by 1956 had performed 80 procedures with no deaths [6].

The modern advent of the transsphenoidal approach as the preferred approach to the pituitary began in 1956 when a French neurosurgeon, Gerard Guiot, learned the technique from Dott and brought it back to Paris and reintroduced it to skeptical colleagues. He ultimately performed over 1,000 transsphenoidal hypophysectomies and also introduced the use of intraoperative fluoroscopy [7] [8] [9].

Total hypophysectomy it is a classical procedure that currently has many indications especially in patients with Cushing syndrome without good endocrine control. Extended endoscopic transsphenoidal approaches grant us an alternative standpoint to the classic transsphenoidal microscopic approach and a comprehensive assessment of the process.

Cárdenas Ruiz-Valdepeñas et al., provides technical nuances and describe step by step the radical endoscopic hypophysectomy. The study of cadaveric specimens adds clarifying dissections.

Radical hypophysectomy is an easily replicable and safe procedure. The most important morbidity is the intraoperative cerebrospinal fluid leakage, which is inherent to this technique and can be successfully prevented with a pedicled nasoseptal flap reconstruction [10].

1)
Hirsch O. Endonasal method of removal of hypophyseal tumors: With a report of two successful cases. JAMA. 1910;55:772–774.
2)
Cushing H. Partial hypophysectomy for acromegaly: With remarks on function of the hypophysis. Ann Surg. 1909;50:1002–1017.
3)
Cushing H. The Weir Mitchell Lecture: Surgical experiences with pituitary disorders. JAMA. 1914;63:1515–1525.
4) , 6) , 7)
Maroon JC. Skull base surgery: past, present, and future trends. Neurosurg Focus. 2005 Jul;19(1):E1.
5)
Senior BA, Ebert CS, Kolln K, Bassim MK, Younes M, Sigounas DG, et al. Minimally invasive pituitary surgery. Laryngoscope. in press.
8)
Liu JK, Das K, Weiss MH, Laws ER, Jr, Couldwell WT. The history and evolution of transsphenoidal surgery. J Neurosurg. 2001 Dec;95(6):1083–1096.
9)
Landolt AM. History of pituitary surgery from the technical aspect. Neurosurg Clin N Am. 2001 Jan;12(1):37–44.
10)

Cárdenas Ruiz-Valdepeñas E, Kaen A, Perez Prat G. Endoscopic radical hypophysectomy: how I do it. Acta Neurochir (Wien). 2016 Nov;158(11):2159-2162. PubMed PMID: 27638642.