

Endoscopic third ventriculostomy complications

Although [endoscopic third ventriculostomy](#) (ETV) is a minimally invasive procedure, serious [perioperative complications](#) may occur due to the unique surgical maneuvers involved.

Complications during endoscopy can lead to serious consequences that may sometimes be very difficult to manage. These complications should be kept in mind perioperatively by both surgeons and anesthesiologists, as prompt detection and action can help minimize the risks associated with neuroendoscopic procedures ¹⁾.

Hypothalamic injury: may result in [hyperphagia](#).

Injury to [pituitary stalk](#) or gland: may result in hormonal abnormalities, including [diabetes insipidus](#), [amenorrhea](#)

Transient [Third nerve palsy](#) and 6th nerve palsies

Injury to the [basilar artery](#), [posterior communicating artery](#), or [posterior cerebral artery](#): a fixed endoscope sheath seated just distal to the foramen of Monro within the [third ventricle](#) may allow for safe egress of blood extracranially

Uncontrollable bleeding

Cardiac arrest

Traumatic [basilar artery aneurysm](#): possibly related to thermal injury from the use of laser in performing ETV

Fulminant stunned myocardium following endoscopic ventriculostomy in a patient with chronic hydrocephalus ²⁾

[Klebsiella pneumoniae ventriculitis](#).... ³⁾.

[Subdural hematoma](#)

[Traumatic subdural hygroma](#)

see [Subdural hematoma after endoscopic third ventriculostomy](#).

Failure

[Endoscopic third ventriculostomy failure](#).

Case series

2015

Kawsar et al. report the complications of elective and emergency ETV and their surgical management in 412 patients from July 2006 to October 2012 at Dhaka Medical College Hospital (a government hospital) and other private hospitals in Dhaka, Bangladesh. The authors attempted some previously undescribed simple maneuvers that may help to overcome the difficulties of managing complications.

The complication rate was determined by recording intraoperative changes in pulse and blood pressure, bleeding episodes, serum electrolyte abnormalities, Cerebrospinal fluid fistula, and neurological deterioration in the immediate postoperative period.

Intraoperative complications included hemodynamic alterations in the form of tachycardia, bradycardia, and hypertension. Bleeding was categorized as major in 2 cases and minor in 68 cases. Delayed recovery from anesthesia occurred in 14 cases, Cerebrospinal fluid fistula from the wound in 11 cases, and electrolyte imbalance in 5 cases. Postoperatively, 2 patients suffered convulsions and 1 had evidence of third cranial nerve injury. Three patients died as a result of complications.

Complications during endoscopy can lead to serious consequences that may sometimes be very difficult to manage. The authors have identified and managed a large number of complications in this series, although the rate of complications is consistent with that in other reported series. These complications should be kept in mind perioperatively by both surgeons and anesthesiologists, as prompt detection and action can help minimize the risks associated with neuroendoscopic procedures

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References

1) , 4)

Kawsar KA, Haque MR, Chowdhury FH. Avoidance and management of perioperative complications of endoscopic third ventriculostomy: the Dhaka experience. *J Neurosurg*. 2015 Dec;123(6):1414-9. doi: 10.3171/2014.11.JNS14395. Epub 2015 May 29. PubMed PMID: 26024001.

2)

Piña Batista KM, Gutiérrez Morales JC, Astudillo A, Alvarez de Eulate-Beramendi S. Fulminant stunned myocardium following endoscopic ventriculostomy in a patient with chronic hydrocephalus. *Neurologia*. 2015 Apr;30(3):181-3. doi: 10.1016/j.nrl.2013.06.012. Epub 2013 Sep 5. English, Spanish. PubMed PMID: 24011670.

3)

Rivero-Garvía M, Márquez-Rivas J, Rueda Torres AB, Gutiérrez-González R, García-Iglesias A, Pascual-Argente D, Villena M, Regueiras M, Medina D. Cranial growth restriction, a fundamental measure for success of the endoscopy in children under 1 month of age. Is it possible to improve the outcome? *J Pediatr Surg*. 2013 Jul;48(7):1628-32. doi: 10.1016/j.jpedsurg.2013.02.060. PubMed PMID: 23895985.

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