Intraocular pressure

Postoperative nausea and vomiting are common in patients receiving microvascular decompression. Hou et al. examined whether postoperative nausea and vomiting are associated with reduced intraocular pressure (IOP) after microvascular decompression, a measure that reflects intracranial pressure.

In this prospective cohort study. Adult patients scheduled for microvascular decompression surgery for hemifacial spasms between January 2020 and August 2020 were eligible. IOP was measured immediately before anesthesia induction and 30 min after patients regained complete consciousness using non-contact tonometry. IOP reduction was defined by at least a 1 mmHg decrease vs. preoperative baseline. The primary outcome was vomiting on postoperative day 1.

A total of 103 subjects were enrolled. IOP was reduced in 56 (54.4%) subjects. A significantly greater proportion of patients with IOP reduction had vomiting on postoperative day 1 (51.8% (29/56) vs. 23.4% (11/47) in those without IOP reduction; p = 0.003). In the multivariate regression analysis, vomiting on postoperative day 1 was associated with female sex [odds ratio = 7.87, 95% CI: 2.35-26.32, p = 0.001] and IOP reduction [odds ratio = 2.93, 95% CI: 1.13-7.58, p = 0.027].

In patients undergoing microvascular decompression surgery, postoperative IOP reduction is associated with postoperative vomiting.

Trial registration: Chinese Clinical Trial Registry: ChiCTR2000029083 . Registered 13 January 2020 [1].

The attacks in SUNCT syndrome are strictly unilateral, generally with the pain persistently confined to the ocular/periocular area. Most attacks are moderate to severe in intensity and burning, stabbing or electrical in character. The mean duration of paroxysms is 1 minute, with a usual range of 10 to 120 seconds (total range 5 to 250 seconds). Prominent, ipsilateral conjunctival injection and lacrimation regularly accompany the attacks. Nasal stuffiness/rhinorrhoea is frequently noted. In addition, there is a subclinical forehead sweating. During attacks, there is increased intraocular pressure on the symptomatic side and swelling of the eyelids. No changes in pupil diameter have been observed. Attacks can be triggered mostly from trigeminally innervated areas, but also from the extratrigeminal territory. There are also spontaneous attacks. An irregular temporal pattern is a rule, with symptomatic periods alternating with remissions in an unpredictable fashion. During active periods, the frequency of attacks may vary from <1 attack/day to >30 attacks/hour. The attacks predominate during the daytime, nocturnal attacks being seldom reported.

1)
Hou Y, Liang H, Fan C, Liu R, Feng Y. Association of intraocular pressure and postoperative nausea and vomiting after microvascular decompression - a prospective cohort study. BMC Anesthesiol. 2022 Apr 30;22(1):132. doi: 10.1186/s12871-022-01665-x. PMID: 35490219.