Post-operative nausea and vomiting (PONV) is a common and debilitating complication following surgery. It can increase post-anesthesia care unit (PACU) stay and has been shown to increase unanticipated hospital admission following ambulatory anesthesia by three to four-fold. ENT procedures have one of the highest incidences of PONV in ambulatory surgical patients. Among the risk factors for post-operative nausea and vomiting, post-operative opioids increase the risk in a dose-dependent fashion. Regional anesthesia has been shown to have a lower incidence of PONV in adults and children when compared to general anesthesia.

The cervical plexus derives from the first four cervical spinal nerves. 2 branches of the plexus (great auricular nerve and lesser occipital nerve) derive from the 2nd and 3rd cervical nerves. These nerves supply cutaneous innervation to the anterior and third posterior surfaces of the external ear, as well as the area overlying the mastoid process and lateral occipital area. Superficial cervical plexus block has the advantage of blocking sensory nerves only.

堵 The auricular branch of the vagus nerve is also known by its eponym, the nerve of Arnold. It innervates the concha, most of the posterior wall of the external auditory canal as well as the inferior portion of the tympanic membrane. Uses include post-operative analgesia for myringotomy, tube placement, tympanoplasty.

堵 Technique:
堵 • Evert the tragus
堵 • A small gauge needle (e.g. 30 gauge) is inserted into the junction of the tragus and the concha
堵 After negative aspiration, a small volume of local anesthetic is injected

堵 Figure 3: Nerve of Arnold surface anatomy - Figure 4: Blockade of Nerve of Arnold

堵 Our investigation was limited in several ways:
堵 • There was variation in the anesthetic received
堵 • Most, but not all patients received both dexmedetomidine and ondansetron prophylaxis
堵 • Some patients received intraoperative ketamine and/or ketorolac
堵 • There was variation in the anesthesiologist performing the block
堵 • Block efficacy could vary depending on the technical ability of the anesthesiologist performing the block
堵 • There was lack of uniformity in the specific block received.
堵 • Not every patient received both blocks simultaneously
堵 • There was considerable variation in the treatment of PONV
堵 • Several patients who received rescue anti-emetics did not report symptoms of nausea or vomiting
堵 • Potential subjective administration of rescue narcotics

堵 Our results in this retrospective chart review failed to show a significant difference in post-operative analgesia between patients who received regional anesthesia in addition to narcotics versus patients who received narcotics alone. It is worth noting that although the number of rescue anti-emetics was higher in the patients who received a block, the incidence of nausea was lower as was the length of post-operative stay. Regardless, this merits further investigation and we are currently enrolling in a prospective randomized study comparing the two groups.

堵 RESULTS
堵 The incidence of nausea and/or vomiting in the non-block patients was 36/148 (24.3%) with the incidence in patients receiving blocks being 21/142 (13%). The mean number of rescue anti-emetics administered in the non-block population was 0.64 versus 0.68 doses in the block population. Of the non-block patients, the mean pain score was 3.49 and the mean number of narcotic doses was 1.81 where the mean pain score in the block patients was 3.14 and number of narcotic doses was 2.204. The mean length of stay in the non-block patients was 0.814 days whereas the mean length of stay in those who received nerve blocks was 0.592 days.