Endoscopic Endonasal Surgery for Sino-nasal Polyposis; A Comparative Study Between General Versus Local Anesthesia Regarding Compliance of Surgery and Patients

Nabil GALAL Prof, Dr. Ehab Abou Zaid Prof, Dr. Ahmed Kamel Prof, Dr. Ahmed EL BATAWI Dr, Mahmoud Abu Hassan.

Department of Otorhinolaryngology, Kasr Alainy Hospitals, Faculty of Medicine, Cairo University.

Introduction:
Nasal polyps (NP) are one of the most common inflammatory mass lesions of the nose, affecting up to 4% of the population. Their etiology remains unclear, but they are known to have associations with allergy, asthma, infection, fungus, cystic fibrosis, and aspirin sensitivity. Surgical treatment in general, is reserved for cases refractory to medical treatment (1). When FESS was originally introduced, it was thought that patients should preferably be operated under local/topical anesthesia with combined sedation, and so patients would be able to signal any kind of pain or discomfort, alerting and allowing the surgeon to minimize trauma and complications (2). However, extensive procedures, revision surgeries and uncooperative and pediatric age group patients will warrant use of general anesthesia (GA).

Aim of the study:
To compare the efficacy of using local versus general anesthesia for endoscopic surgical treatment of Sino nasal polyposis during operation as well as early and late postoperative period together with patient’s acceptance for surgery.

Material and methods:
A total of 40 patients with sino-nasal polyposis were divided randomly into two groups. Group 1 underwent endoscopic nasal surgery under local anesthesia (L.A) and Group 2 underwent endoscopic nasal surgery under general anesthesia (G.A) with the following exclusion criteria:
1. Children less than 15 years old.
2. Recurrent cases.
3. Patients with Smatter’s triad (aspirin sensitivity with Sino nasal polyposis with asthma).

The anaesthesiological procedures:
A. Group 1 (L.A) Preoperatively, there is intravenous administration of an analgesic (fentanyl 0.1 mg) and a sedative (diazepam 5–10 mg). Then packing the nasal cavity with cotton pads soaked with adrenaline, saline and xylocaine. Then doing infiltration anaesthesia to the anterior ethmoidal nerve at the axilla of the middle turbinate and the sphenopalatine ganglion at the area of the sphenopalatine foramen and the greater palatine nerve at the area of the greater palatine foramen.
B. Group 2 (G.A) using gas anesthesia (isoflurane/sevoflurane) and barbiturates (thiopental)
The surgical procedure used for both groups was the MesserKlinger technique.

Results:
Most of patients who were done under local anesthesia showed good acceptance for surgery, shorter time of surgery and lesser bloody field than those who were done under general anesthesia. No needs for nasal packing after finishing the operation and there was almost no synechiaz postoperatively in the (L.A) group. P-Value was highly significant with group 1 (L.A) regarding bleeding intra-operatively, duration of surgery and absence of synechiaz 2 weeks postoperatively (P- Value were 0.029, 0.001 & 0.017 respectively).

Conclusions:
Surgery of sino-nasal polyposis under local anesthesia is an effective method for treatment of nasal polyposis as regard patient acceptance for surgery, time of surgery, and very good surgical field with little bleeding and short hospital stay with smooth recovery of the patient and less cost.

Recommendations:
Larger prospective cohorts of patients is needed to be investigated to identify all the clinic-pathological variables capable of pinpointing patients at higher risk of recurrent sino-nasal polyposis after surgery.

References: