Patients with chronic rhinosinusitis with polyps (CRSwNP) often have as a primary symptom, severe nasal obstruction. This is often accompanied by hypoxia or anosmia and significant nasal congestion. Sinus surgery relieves the most prominent symptom of nasal obstruction but the symptom of dysosmia improves in only 50% of patients. Endoscopic polypectomy performed in clinic (EPIC) is a treatment strategy that is utilised at the Ottawa Hospital-Civic site Rhinology clinic. However, a review of the literature reveals that there is no published literature as of yet which evaluates the effects of in clinic endoscopic nasal polypectomy in patients with chronic rhinosinusitis with polyps.

OBJECTIVE

To evaluate the effects of in clinic endoscopic nasal polypectomy on symptom control for patients with CRSwNP using a pilot study design.

METHODS

SUBJECTS

Inclusion Criteria

- Diagnosis of Chronic Rhinosinusitis with Nasal Polyps (CRSwNP)
- Primary symptom of severe nasal obstruction
- As part of their treatment plan, the prospective participant was to undergo endoscopic polypectomy performed in clinic (EPIC).
- Able to provide informed consent.

Exclusion Criteria

- Patients who reported the symptom of facial pain or headache
- Known untreated bleeding disorder
- Known sensitivity to the local or topical analgesics
- Known untreated head or sinus infection
- Known untreated or undiagnosed systemic vasculitis
- Patients with allergic fungal sinusitis, cystic fibrosis, or underlying systemic vasculitis
- Patients with polyps aged 18-65 years
- Patients with allergic fungal sinusitis
- Patients with cystic fibrosis

METHODS

OUTCOMES

Primary:
- SNOT-22

Secondary:
- Peak Nasal Inspiratory Flow (PNIF)
- Discomfort during procedure evaluated with a 10 cm Visual Analogue Scale (VAS)
- Cost evaluation of the procedure
- Adverse Events

PROCEDURES

- Local OHSN-REB approval
- SNOT-22 was completed before the polypectomy was done and at 3 month follow-up.
- PNIF was measured using an inspiratory flow meter before, immediately and at 3 months after the procedure. The mean of three consecutive measurements was used.
- A 10 cm VAS was completed by the patient immediately after the procedure was done (“0” = no pain – “10” = intolerable pain)
- Cost Evaluation: An enterprise case costing system of endoscopic nasal polypectomy performed in clinic (EPIC).
- Patient who reported the symptom of facial pain or headache
- Known untreated bleeding disorder
- Known sensitivity to the local or topical analgesics
- Known untreated head or sinus infection
- Known untreated systemic vasculitis
- Patients with allergic fungal sinusitis, cystic fibrosis, or underlying systemic vasculitis

EPIC PROCEDURE

- Both topical and nasal anesthesia for analgesia.
- Injectable 1% lidocaine with 1:200,000 adrenaline was endoscopically infiltrated into polyps in the nasal cavity and middle meatus using a 25 ga needle. Topical 2% lidocaine mixed with 1:1000 topical adrenaline was applied to the nasal cavity and middle meatus on cotton pledgets soaked with the solution. Ten minutes was allowed to pass prior to commencing the polypectomy.
- All patients underwent EPIC in the outpatient clinic with a microdebrider using a 4mm straight blade
- A 0 degree, 2.9 mm sinuscope with endoscopic camera, xenon light source and monitor was used

RESULTS

The mean SNOT-22 score dropped significantly between the baseline (46.3 ± 13.62) and follow-up measures (18.90 ± 14.91) (p<0.001).

CONCLUSION

- The SNOT-22 and PNIF results both before and 3 months following polypectomy are not dissimilar from results in the literature for patients with chronic rhinosinusitis with polyps who have undergone endoscopic sinus surgery (ESS).
- The institutional cost of the EPIC procedure was about $279 (CAD) per treatment. In comparison to ESS, in Canada the total institutional cost is estimated to be $1800.
- The EPIC procedure is one-sixth the cost of ESS.

REFERENCES