



## RESEARCH ARTICLE

### COBLATION BENEFITS OF TONSILLECTOMY VERSUS TRADITIONAL TONSILLECTOMY

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#### ABSTRACT

In this study, we compare the traditional surgeries to minimally invasive surgeries of tonsillectomy patients and adenoid hypertrophy to rule out the benefits of minimally invasive surgeries compared to traditional surgeries. The criteria for choosing patients is to understand the severity of the procedure the hospital stays, postoperative bleeding, and the recovery time strategy of tonsillectomy patients and adenoidectomy. (We collected and analyzed 150 patients with coblation tonsillectomy compared traditional tonsillectomy and the benefits of minimally invasive surgery compared to traditional. Surgery The total number of patients was 150. There are male and female patients. 78 males, underwent coblation tonsillectomy 72 females, underwent traditional tonsillectomy and they all performed coblation compared with traditional surgeries. Of the number of patients aged 4 to 6 years, most are younger than age 15, 72 were about 4-6, years, and 78 were over age 6. **Material and Method:** Comparing 150 patients were divided into two groups coblation tonsillectomy was performed to the amount of intraoperative bleeding and recovery time pain was measured all patients were followed for 14 months, compared with blood loss and management **Results:** coblation tonsillectomy was more convenient compared to traditional cold steel dissection tonsillectomy the mean duration of surgery. **Conclusion:** Coblation tonsillectomy gives the significant advantage of dissection methods with blood and pain less and return to normal activities, coblation is better recommended in all patients performing tonsillectomy the main purpose of this study is to understand the significance of less pain and less bleeding compared to the old technique of cold steel tonsillectomy the benefits are less bleeding, less postoperative bleeding, and quick recovery.

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## INTRODUCTION

Coblation was first used in 2001, and since that time the efficacy has been great many researchers believe that the benefits of postoperative bleeding were reduced in the recovery process and pain with a quick return to normal. The clinical data of patients of minimal invasive coblation tonsillectomy and traditional tonsillectomy were collected from the Department of Otolaryngology in Aden abdulle hospital from July 3, 2021, to July 10, 2023, these patients came to our department complaining of a sore throat, dysphagia, fever and so on we planned with tonsillectomy performing coblation technology. The procedure of coblation versus traditional surgeries for the time being, the patient was complaining of chronic tonsillitis after we tested with lab and swab test we found the patient had recurrent tonsillitis and chronic tonsillitis we performed a swab test and major surgical profile. We collected the data from the Department of Otolaryngology in Aden Abdulle Hospital date of retro prospective analysis date, including the examination method of blood tests and swabs the total patients was 150 patients, 72 patients were done with coblation and 78 patients were done.

With cold steel tonsillectomy, 120 were close follow-up up and 30 were lost contact and lost to follow-up. The indication of tonsillectomy is the main concern of recurrent tonsil infection, snoring mouth breathing obstructive sleep apnea, long long-term antibiotic use during the preoperative assessment we included anesthesia general, and the patients were divided into two groups according to randomized surgeon based on patient sequence. The procedure of operation was divided into two groups the first group used coblation tonsillectomy, the second group used cold steel traditional tonsillectomy combination bipolar cautery blood loss were evaluated with less volume of coblation while the cold steel tonsillectomy was a postoperative bleeding, pain was less the coblation group while the cold steel group was postoperative pain. Post-operative bleeding was seen in 34 patients with cold steel tonsillectomy, Most 34 patients with primary hemorrhage presented with 24 hours of cold steel tonsillectomy procedure while the coblation postoperative bleed was 0 patients. The data included post-operative pain post-operative bleeding recovery time and normal diet the follow-up was done by a resident doctor 120 patients with close contact were evaluated while the 30 patients lost contact.

## MATERIALS AND METHODS

Comparing 150 patients were divided into two groups coblation tonsillectomy was performed to the amount of intraoperative bleeding, and recovery time pain was measured all patients were followed for 14 months, comparing with blood loss and management, postoperative bleeding, recovery time, and normal diet and back to work, patients were administered analgesic and antibiotic for postoperative care and management. Data were analyzed with spss software (spss 25-64 version) of recovery time patient, normal diet, and return to work analyzed statistical analyses: SPSS grief. 25\_64 software was used for statistical analysis.



Figure 1. Shows that coblation tonsillectomy



Figure 2. Shows cold steel tonsillectomy

### Statistical analysis

#### Descriptive statistic

		number of patients	Female	male	Coblation	Dissection	postoperative and bleeding and pain pain
N	Valid	150	80	70	72	78	36
	Missing	0	0	0	0	0	0
Mean		150.00	80.00	70.00	90.00	60.00	.00
Median		150.00	80.00	70.00	90.00	60.00	.00
Minimum		150	80	70	90	60	0
Maximum		150	80	70	90	60	0

## RESULTS

There is a significant difference between coblation and traditional tonsillectomy coblation tonsillectomy is more convenient compared to traditional cold steel dissection tonsillectomy the mean duration of surgery in our study included 150 patients with a mean age of two groups being 10.5 years of coblation to 11 years for the traditional tonsillectomy group, all 150 patients were followed up for regular postoperative. 78 patients underwent a traditional tonsillectomy, and 72 patients underwent coblation tonsillectomy from 2022 to 2023 in the Aden Abdulle hospital department collected the patients available For postoperative follow-up. Postoperative bleeding with coblation tonsillectomy was 0 patients While the traditional tonsillectomy was more patients coblation Tonsillectomy operation time is 25 to 30 minutes at the same time the traditional tonsillectomy takes an hour postoperative pain coblation patients are 0 at the same time the traditional tonsillectomy patients are 36.

## DISCUSSION

Tonsillectomy is a common procedure of surgery performed the whole world comparing the different techniques of coblation and traditional tonsillectomy, traditional tonsillectomy is no longer used nowadays because of the surgery time and postoperative pain and bleeding are common while coblation tonsillectomy is a save procedure less postoperative bleeding and pain is 0 The surgical technique of coblation is based on the dissection of the correct plane of the tonsillar fossa relatively bloodless muscular plane. The coblation principle is different from the cold steel technique of traditional tonsillectomy, coblation is radio frequency wavelengths of control and ablation, and the surgical technique was advanced in modern medicine. We are comparing two methods of technique traditional tonsillectomy compared coblation tonsillectomy some differences were found for each group and the outcome and methods were different. Compared coblation with the cold dissection of traditional tonsillectomy coblation only used a maximum of 1 or 2 patients with the cost for each patient at the same time the cold steel technique of traditional tonsillectomy was less costly and the technique depended on the surgeon's skills. As we know coblation tonsillectomy is time saving procedure that makes surgeon go easy for their work comparing dissection cold steel technique, coblation tonsillectomy has been introduced lately with the benefit of decreased postoperative bleeding compared.

With traditional tonsillectomy, traditional tonsillectomy with the forceps with longer operative time. Some studies report that there is no difference between the methods regarding intraoperative bleeding, in our studies we found coblation less intraoperative blood loss compared with traditional tonsillectomy. Most patients who performed coblation tonsillectomy returned to normal activities and normal diet. The goal is to minimize the postoperative bleeding and pain for both procedures, coblation was less scary compared with traditional tonsillectomy using electrocautery, Noon, etl demonstrated a significantly higher hemorrhage rate in coblation group compared with the traditional group, our study differentiated and opposed to this study, Bellosotl claimed the coblation tonsillectomy was associated with a lesser incidence of secondary hemorrhage more significant in the

pediatric population, (5) although tonsillectomy is one of the most widely used in otolaryngology surgeries, there is no universally accepted consensus regarding the use of surgical instruments (6,7,8). To evaluate patients' activities, patients were asked about the pain and postoperative bleeding and return to work normally, our study found that coblation was better in all aspects, therefore coblation tonsillectomy was effective and had better performance. The difference between pain and recovery time has a significant difference for both procedures, in our study we found that painless in coblation compared with the cold steel tonsillectomy.

## CONCLUSION

Coblation tonsillectomy gives the significant advantage of dissection methods with blood and pain less and return to normal activities, coblation is better recommended in all patients performing tonsillectomy. The use of coblation in surgical procedures depends the chemical rather than thermal, coblation tonsillectomy reduces postoperative pain severity and duration (9,10) the main purpose of this study is to understand the significance of less pain and less bleeding compared to the old technique of cold steel tonsillectomy the benefits are less bleeding, less postoperative bleeding, quick recovery, at the same time the traditional tonsillectomy method has the advantage of being less costly, and tools available in all hospitals.

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