

Comparison of Lignocaine AMD Normal Saline in the Management of Post-Tonsillectomy Pain

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Abstract:-

➤ *Background:*

Tonsillectomy is a commonly performed surgical intervention. There's unbearable pain after this procedure. The pain control that's provided after the surgery is not adequate and is very less than what is required.

➤ *Aim:*

This study was conducted with an objective to compare the efficacy of Lignocaine in pain control to that of normal saline after tonsillectomy procedure.

➤ *Method:*

A study was carried out from February 2019 to May 2019 among 60 patients in the ENT department of Saveetha Medical College.

➤ *Result:*

Out of 60 patients, there's no significant difference based on age and gender. But there's significant difference in pain control when lignocaine is given compared with normal saline.

➤ *Conclusion:*

This study revealed that there's adequate pain control when lignocaine is given compared to normal saline after tonsillectomy.

Keywords:- Post Tonsillectomy, Local Anaesthetic, Pain Management.

I. INTRODUCTION

Tonsillectomy is one of the most commonly used surgical interventions for the removal of tonsils. The severe pain following the procedure is of great concern and analgesia is essential post operatively. The intensity is very severe immediately after the surgery and it lasts for two to four days. [1] It's is also associated with impaired swallowing with a risk of dehydration, infection and secondary haemorrhage. The risk factors include gastro intestinal symptoms like emesis, nausea, constipation, abdominal discomfort, post operative infection, dehydration. [4] Various methods have been used to reduce the complications. Antibiotics has been used to reduce post operation infection related morbidity. Post operative use of systemic analgesics and opioids causes side effects. [9] Thus the widely accepted method is injection of local anaesthetic agent in the peri tonsillar fossa which has an

iota of side effects. [2]The pain is mostly thought to be due to nerve irritation and thus the anaesthetic will block the transmission of nerve impulses controlling the pain. Anaesthetic also controls post operative bleeding and is patient friendly compared to other methods. [3]

The aim of this study is to compare the effectiveness of local anaesthetic lignocaine and normal saline in adequate pain control.

II. METHODOLOGY

This is a prospective randomised control ,double blinded study conducted in the Department of Otorhinolaryngology, Saveetha medical college, for a period of 3 months between February 2019 to May 2019 after approval by the ethics committee. A total of 60 patients were included in the study as per the inclusion criteria.

An informed consent was obtained from the guardians/patients, and the patients were divided randomly into two groups using the lottery method. Patients who underwent tonsillectomy for hypertrophy, recurrent tonsillitis and obstructive symptoms were included in the study. Criteria for exclusion were signs of acute infection, suspected malignant neoplasm, known hypersensitivity to drugs and bleeding disorders.

- Group 1: Patients who received topical Normal saline.
- Group 2: Patients who received topical 2% Lignocaine hydrochloride with epinephrine.

All patients received these medications soon after excision of tonsils before recovery from GA.

All patients underwent tonsillectomy using a standardized general anesthesia protocol and a single surgeon performed all the surgeries. The patient was placed in Rose position and tonsillectomy was done using cold steel method. Hemostasis was achieved using cotton swabs

Both the fossae were tightly packed with a swab soaked with, 5 ml normal saline in-group 1 and 5 ml lignocaine hydrochloride (2%) with epinephrine in-group 2. The OT nurse prepared the swabs and the study was double blinded. The patients were given the same post-operatively antibiotic and pain killers for a week.

Post-operative pain scores at first, third and fifth day, were recorded by the parents using Visual analogue scale.

Statistical analyses were performed with SPSS version....software for windows. A p value of less than 0.05 was considered statistically significant.

III. RESULTS

Of the total 64 patients, 60 patients were included in the study and the data from 60 patients were analysed. 3 patients did not consent for the study and one patient did not give consent.

The average age in group 1 was 6.1 ± 1.9 and in group 2 was 5.8 ± 3.6 .

There was no statistically significant differences between the groups for age gender and indication for surgery(Tables 1 and 2).

There was a statistically significant difference in the post operative pain between the two groups on day 1 and day 3. Pain decreased for both groups by the fifth day and the difference was not statistically significant (Table 3).

Gender	Group 1	Group 2	P value
Male	14	17	>0.05
Female	16	13	>0.05
Age	6.1 ± 1.9	5.8 ± 3.6	>0.05

Table 1:- Demographic Details

Indications	Group 1	Group 2
Recurrent tonsillitis	20	24
Hypertrophy	6	6
Post quinsy	2	0
OSA	2	0

Table 2:- Indications for Tonsillectomy

	Group 1 (n=30)	Group 2(n=30)	P Value
Day 1	2.9 ± 1.2	5.1 ± 5.8	<0.05
Day 3	2.7 ± 0.7	4.7 ± 3.3	<0.05
Day 5	1.6 ± 0.2	1.8 ± 0.9	>0.05

Table 3:- Comparison of Postoperative Visual Analog Scale between Groups

IV. DESCRIPTION

Tonsillectomy is a commonly used surgical procedure but causes various side effects like infection, pain, haemorrhage, dehydration. Post operative pain control is a necessity as it results in poor oral intake. [5] It's believed that pain after tonsillectomy is caused by nerve irritation, inflammation and pharyngeal muscle spasm. The pain does not completely subside until the muscle becomes covered with mucosa after surgery. [6] Many methods have been tried for the management of pain. But the side effects of the methods have been intolerable for the patient. Hence topical application of anaesthetic in the tonsillar fossa which has less side effects is used. [7] This is a widely accepted pain management intervention. Thus the anaesthetic blocks the nerve impulse, controlling the pain to a great extent. This procedure has a good patient tolerance and is preferred over other methods for reducing the pain post tonsillectomy. [8] The purpose of this study is to compare the effectiveness of lignocaine and normal saline in controlling pain post tonsillectomy.

V. CONCLUSION

It's found that there's a significant difference in the VAS score after topical application of lignocaine when compared with normal saline.

This study concludes that Lignocaine provides good pain control post tonsillectomy.

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