

## Postoperative Pharmaceutical Care in Tonsillectomy

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### Abstract:

A tonsil is a rounded mass of tissue, usually of a lymphoid nature. Tonsils are located laterally in the oropharynx. The tonsils are bordered anteriorly by palatoglossus muscle, posteriorly by palatopharyngeus muscle, superiorly by soft palate and inferiorly by lingual tonsil. Tonsillectomy is defined as the surgical excision of the palatine tonsils. The main purpose of study was to counsel the patients about sufficient and suitable dietary intake, to educate the patients about possible post operative complications, to optimize the drug therapy according to each individual patient's factors, to promote the post operative patient compliance with drug regimen, to ensure complete awareness of the patient about why and when to come for follow up visits, to instruct the patient to maintain good hydration, avoid smoking, avoid heavy lifting and exertion for few days after getting operated. Method that was adopted for the study was Performa which was used to assess the postoperative pharmaceutical care in tonsillectomy. The study group consisted of 40 patients. The patients were selected from WAPDA Hospital (lhr), Civil Hospital (grw), and Ganga Ram Hospital. The data showed that Patients were given both medical & surgical treatments. Causes of tonsillectomy, noticed, were different in different individual's e-g throat infections in 95%, and sleep apnea in 5% patients and treatment persists for two weeks in 77.5% patients, for 1 week 17.5 % and for 3 weeks in 5% patients. Decision of tonsillectomy should be based upon a strong n thorough study of patient's symptoms. Medication should always be preferred over surgical procedure and when possible, surgery should be avoided. All the medicines given before and after surgery should be given after taking into account all the factors related to patients' present health condition, past medical history and genetic makeup.

**Keywords:** *Tonsil, Tonsillectomy.*

### Introduction:

The word "Tonsil" (from Latin tonsa = the oar) is in use since Celsus (about 40 AD). The Greek terms of that time, "antiádes", "paristhmia", were not adopted in later medical terminology. "Amygdala" (Greek/Latin = the almond) was introduced by Vesalius in 1543. Vesalius was also the first to depict the tonsils in a specimen of the whole human body; Duverney (1761) gives the first exact depiction of the pharyngeal region. Special anatomical and histological studies of the tonsils were carried out in the 19 century. [1]Tonsils are the first line defense of high respiratory tract. The immune functions of their lymphoid tissue are multiple: mucosal antigens capture, presentation to lymphocytes, antigens specific proliferation of lymphocytes T and B, differentiation of lymphocytes in effectors lymphocytes and immune lymphocytes. Epithelial cells on the tonsils' surface express non-specific defense. These facts explain partly tonsils' hypertrophy. Tonsillectomy has no general immune consequences. [2] Attacks due to septic absorption through the tonsils, or a chronic

condition of ill-health can be attributed to infection through the tonsillar area, frequent attacks of tonsillar inflammation, or of peritonsillar abscess. [3] Intracellular residing *S. aureus* is the most common cause of recurrent tonsillitis and that *S. aureus* uses this location to survive the effects of antibiotics and the host immune response.[4] Absolute indications for tonsillectomy and adenoidectomy include adenotonsillar hyperplasia with obstructive sleep apnea, failure to thrive, or abnormal dentofacial growth; suspicion of malignant disease; and hemorrhagic tonsillitis. [5] De Diego JI and his co-workers described the removal of the tonsils, the improvement of the anesthetic procedures and the perioperative management. This has contributed greatly to success with this surgical procedure. [6] Postoperative complications following a large series of adenotonsillectomies fall into two major categories: hemorrhage and airway problems. Many complications encountered after adenotonsillar surgery are intrinsic to the patient's disease and overall medical condition. Improved surgical and anesthetic techniques have minimized the

complications noted in earlier studies. [7] The only potentially severe complication is a hemorrhage due to scab fall between the eighth and twelfth days. It requires explanation and a written note given to parents. The possibility of lack of feeding and voice modification, usually transitory, should be known. Multiple consequences of tonsillectomy especially allergy have been alleged. Since the years 1980, it is well established that pre-existing allergy or asthma are not a contraindication. Its deleterious impact on allergic children has not been demonstrated. A gain of weight post-tonsillectomy is possible and could become a risk if excessive. (8) Dexamethasone 150 micrograms/kg up to a maximum dose of 8 mg, or placebo, administered IV before surgery reduces the overall incidence of vomiting. Dexamethasone markedly decreases vomiting by healthy children after elective tonsillectomy in an ambulatory hospital setting. (9) The comparison of efficacy and safety of ibuprofen with acetaminophen with codeine for pediatric post tonsillectomy patients concluded that the acetaminophen with codeine is safer and more efficacious than ibuprofen in the management of post tonsillectomy pain in children. (10)

**Materials and Methods:**

A total of 40 patients of tonsillectomy were enrolled in. Study data was conducted on both males and females from age group 0-50 year. The data was collected from WAPDA hospital Lahore and Civil Hospital Gujranwala. A Performa was designed to record the patient’s history, their demographic detail, and history of illness, medications, treatment plan and cautions advised to them. Results are given in the form of tables

**Results:**

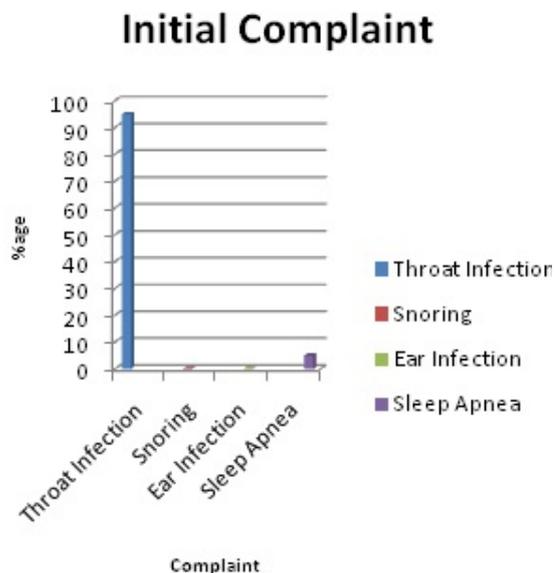


Fig. 1

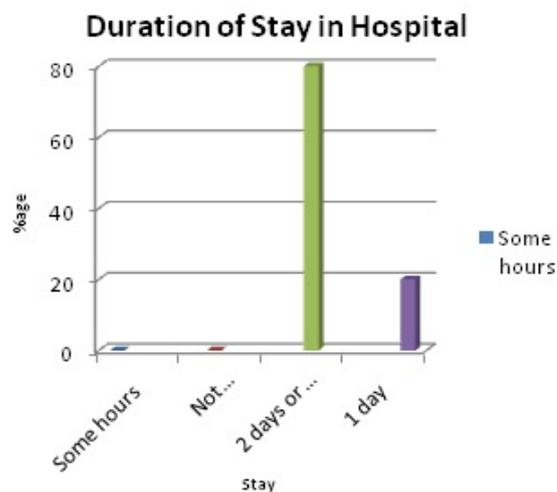


Fig. 2

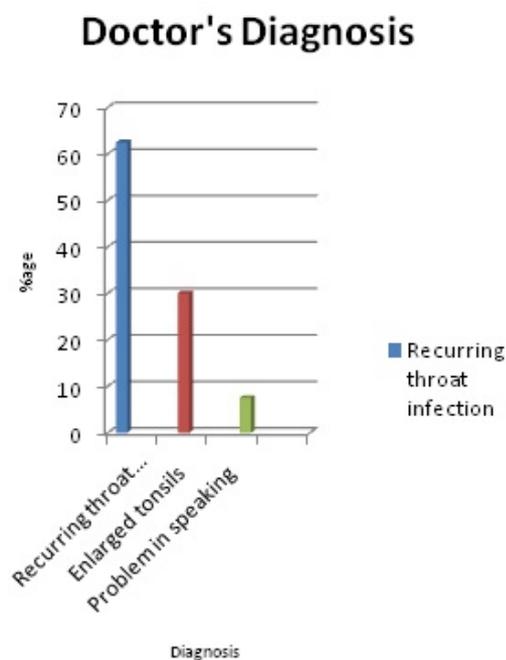


Fig. 3

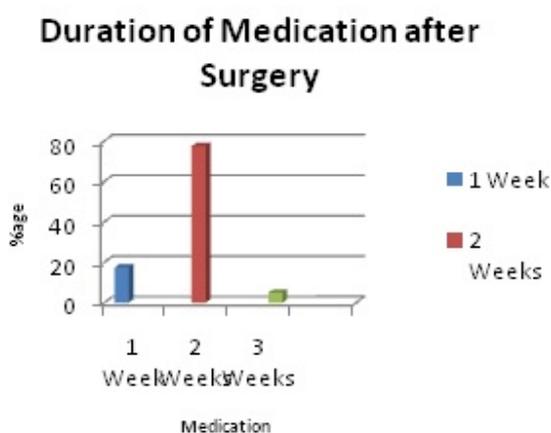


Fig. 4



Fig. 5



Fig. 6

**Discussion:**

Tonsil is a rounded mass of tissue, usually of a lymphoid nature. In addition to producing lymphocytes, the tonsils are active in the synthesis of immunoglobulins. Because they are the first lymphoid aggregates in the aero digestive tract, the tonsils are thought to play a role in immunity. Although healthy tonsils offer immune protection, diseased tonsils are less effective at serving their immune functions. Diseased tonsils are associated with decreased antigen transport, decreased antibody production, and chronic bacterial infection. Tonsillectomy is defined as the surgical excision of the palatine tonsils. Contraindications for tonsillectomy include bleeding diathesis, poor anesthetic risk or uncontrolled medical illness, anemia and acute infection. Laboratory studies include coagulation parameters. Coagulation tests should include an activated partial thromboplastin time (aPTT) and a platelet count. These assays are performed to screen for disorders associated with substantial hemorrhage. Imaging studies include plain radiography, CT scanning, and MRI in an appropriate patient with a tonsillar mass suggestive of malignancy. In addition, a patient with a pulsatile area adjacent to the

tonsil should undergo magnetic resonance arteriography (MRA) before routine tonsillectomy to evaluate for an aberrant internal carotid artery. In fig 1 causes of tonsillectomy, were different in different individuals e-g throat infections in 95%, and sleep apnea in 5% patients. Fig 2 shows duration of stay in hospitals after surgery (2 days or more). Fig 3 doctors who asked patients to go for tonsillectomy diagnosed mostly recurring throat infection in 62.5% patients, enlarged tonsils in 30% patients and problem in speaking in 7% patients. Fig 4 shows that duration of treatment is two weeks in 77.5% patients, 1 week 17.5 % and 3 weeks in 5% patients. Fig 5 42.5% patients observed changes in their voice and 57.5% observed changes in taste after tonsillectomy. Fig 6 shows that patients were recommended mostly to take dairy products and soft food.

### Conclusion:

Decision of tonsillectomy should be based upon a strong thorough study of patient's symptoms. Medication should always be preferred over surgical procedure and when possible, surgery should be avoided. Patient should be directed to undergo specific lab tests to assess his/her condition. Surgery should only be done if patient assessment tells that his/her symptoms come under absolute indications of tonsillectomy. If patient has any problem which is considered as a contraindication of tonsillectomy, then other therapies should be carried out. All the medicines given before and after surgery should be given after taking into account all the factors related to patients' present health condition, past medical history and genetic makeup. The medicines given should not interact between themselves, as well as with any other medication taken by the patient. As most of the patients are young children,

parents should be guided well enough about the pre-operative, peri-operative and post-operative care and measures which are to be taken by either hospital staff or themselves. Parents should be given a complete diet and medication chart at the time of discharge. Patients should be convinced to come for regular follow up and for complying with the instructions given by medical professionals.

### Acknowledgements

Special thanks to Vice Chancellor, Bushra Mateen ,and Prof. Dr. Hafeez Ikram Head of the Pharmacy Department L.C.W.U. Thanks to doctors, nurses, pharmacists, workers and administrative staff in hospitals for their guidance and assistance.

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