

# Role of Antimicrobial Therapy in Post Tonsillectomy Management

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## ABSTRACT

**Aim:** Role of antibiotics in post tonsillectomy patients.

**Study design:** A descriptive retrospective study:

**Place and duration:** Department of Ear Nose Throat and Head & Neck surgery, Multan Medical & Dental College, Ibne- Sina Hospital Multan, between January 2016 to March 2017.

**Methods:** This study was carried out in ENT unit Multan Medical and Dental college, Ibne- Sina Hospital Multan in admitted patients. Thirty cases were selected and divided into two groups, 15 patients in each group randomly. Patients were kept in the ward for seven days after tonsillectomy and their clinical features (pain, dysphagia, sloughing, hyperemia, and secondary hemorrhage) were recorded on rating proforma according to severity of clinical features.

**Results:** Pain subjective feeling were recorded on rating scale Performa of both the groups compared statistically did not show any significance of p value being 0.457. This subjective feeling statistically did not show any significance, p value being 0.234. Hyperemia significantly prove to be non significant. P value 0.702. Sloughing did not prove any significance statistically, p-value being 0.341. Secondary bleeding did not show any significance statistically p- value being 0.510.

**Conclusion:** Before prescribing the antimicrobials, the doctor must consider two factors, the patient and causative organisms. Factors related to the patients are, history of allergy, hepatic and renal dysfunction. Whether the patient is immunocompromised? severity of illness, ability to tolerate drugs, age, whether taking other medications and if female, whether having pregnancy, breast feeding or taking oral contraceptive pills.

**Keywords:** Role of Antimicrobials therapy, post tonsillectomy.

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## INTRODUCTION

The age of scientific medical microbiology began in the middle of 19<sup>th</sup> century with the pioneer discoveries of Louis Pasteur. By the end of the century, most of the bacterial pathogens of man had been isolated, and the mechanisms by which bacteria cause diseases were being investigated. The concept of virulence had been introduced and the toxigenicity of bacteria had been applied to the development of active and passive immunization against diphtheria and tetanus. The concept that safe drugs with specific antimicrobiological action might be developed was the vision of Paul Ehrlich (1854-1915), who also foresaw the emergence of resistance to these drugs. The modern era of antimicrobial drugs began with Protosil in 1932, but the introduction of Penicillin as a therapeutic agent truly revolutionized the management of infections and spawned an industry which continues to develop new antibiotics at an astonishing rate. With the wide spread use of immunosuppressive drugs, such as corticosteroids, antimitotic and antirejection agents, microorganisms

which were previously rare or unknown as cause of human disease, have become increasingly common. Fungi, for example, have assumed a much greater role in human disease. Antimicrobial drugs can significantly alter composition of normal microflora in many sites in the body. With antibiotic treatment the normal bacterial population of Gram- positive and Gram- negative cocci and bacilli can be rapidly replaced with Gram- negative rods.

## PATIENTS AND METHODS

This study was carried out in ENT unit Multan Medical and Dental College, Ibne- Sina Hospital Multan in admitted patients. Thirty cases were selected and divided into two groups, 15 patients in each group randomly Patients were kept in the ward for seven days after tonsillectomy and their clinical features (pain, dysphagia, sloughing, hyperemia, and secondary hemorrhage) were recorded on rating Performa according to severity of clinical features.

Absent	0
Mild	1
Moderate	2
Severe	3

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Group A: Fifteen cases in this group were given antibiotics, which were taking before operation for about five days along with symptomatic treatment. Group B: Fifteen cases in this group were given symptomatic treatment only. Antibiotics were stopped on the day of operation.

## RESULTS

**Pain:** This subjective feeling were recorded on rating scale Performa of both the groups compared

statistically did not show any significance of p value being 0.457.

**Dysphagia:** This subjective feeling statistically did not show any significance, p –value being 0.234.

**Hyperemia:** This sign significantly prove to be non significant. P-value 0.702.

**Sloughing:** This sign also did not prove any significance statistically, p-value being 0.341.

**Secondary bleeding:** This clinical feature did not show any significance statistically p- value being 0.510.

Table

Symptoms	With Antibiotics	Without Antibiotics	Significance (P Value)
Dysphagia	2.1429 %2.673	1.1429 %1.069	0.2340
Secondary Bleeding	0.5714% 3.552	1.0000% 2.647	0.510
Hyperemia	2.5714% 3.552	2.1429%1.345	0.702
Pain	3.4286 % 5.884	3.1429%6.283	0.457
Sloughing	1.2857 %1.254	2.1429%2.193	0.341

P Value > 0.05, Non significant      P Value < 0.01 Highly Significant  
P Value < 0.05 Significant      P Value < 0.001 Very Highly significant

## DISCUSSION

Post operative pain and dysphagia are due to irritation of sensory nerve endings<sup>5</sup> as well as spasm of pharyngeal muscles<sup>6</sup> managed usually with analgesics and early chewing of solid foods. Ritter<sup>7</sup> suggested swallowing might be facilitated by giving analgesics prior to meals. Hyperemia and granulation formation normally occur over the raw surface. Secondary bleeding usually occurs during the fifth through the tenth day is commonly associated with premature separation of the granulation membrane, this may be precipitated by intercurrents infections or dietary indiscretions that traumatize healing pharynx<sup>8</sup>. Localized sub acute inflammation of the pharyngeal wall or tonsillar fossae are not uncommon following adenoid or tonsil surgery<sup>3</sup> and aggravates hyperemia, dirty slough formation and secondary bleeding, but usually respond to symptomatic therapies such as hydrogen peroxide diluted with saline lavages. Occasionally, significant infection can occur particularly in dehydrated patients (Table). Antimicrobial drugs are used on a very large scale, and their use gives striking therapeutic results. On the other hand, they can cause serious untoward reactions and therefore be administered only upon proper indications<sup>9</sup>. In the light of our results, which proved to be insignificant statistically and in above discussion we have come to the conclusion that use of antibiotics in post tonsillectomy cases is not that much essential because in recurrent tonsillitis the bacteria become resistant to many antibiotics due to injudicial use of antibiotics and the symptoms can be relieved by simple methods.

Conclusion:

**Antimicrobial policies:** A policy may indicate a range of drugs for general use. Other drugs should be prescribed on advice of microbiologist or physician. Before starting therapy, following percepts should be considered. (A) Viral infection should not be treated with antibiotics. (B) sample should be taken for culture and sensitivity. (C) Dose of antibiotics varies according to number of factors including age, weight, renal and hepatic function, severity of disease. (D) Duration of therapy depends on the nature of infection and response to treatment (E) The route of drug administration always depends upon severity of illness.

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