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PRESCRIBING PATTERN OF DRUGS USED IN TONSILLITIS PATIENTS OF OTORHINOLARYNGOLOGY DEPARTMENT OF TERTIOARY CARE HOSPITAL

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ABSTRACT

Objective: The present Study was undertaken to evaluates the baseline data on Drugs used in acute tonsillitis. **Method:** Questionnaires based Performa was specifically designed to collect the prescribing information from ENT Out patients. The performa contain Demographic data of patients, Diagnosis of disease and Drug regimen. **Result:** A total 110 prescriptions of patients were analysed who had confirmed diagnosis of Tonsililitis from ENT OPD Department. Maximum patients were patients were of the age group between 1 – 10 yr (39.09%). Incidence male(55%) were higher than female(45%). The total 495 drug were prescribed. Average drug per prescription was 4.95. Mong total 495, 110(22.22%) antibiotic were prescribed. Most common antibiotic prescribed were Combination of Amoxicillin + Clavulinic Acid (43.63%) followed by Amoxicillin+Cloxacillin(25.45%) etc. The common drug prescribed was Antiinfective: Bitadine gargle (25.97%), followed by Multivitamin (25.97%), Analgesic: Diclofenac (24.6%), etc. Among 110 patients, only 15 patients were sent For Antibiotic Sensitivity Pattern Testing. Common Organism isolated were Streptococcus, Pseudomonas, and Klabsiella sp. **Conclusion:** The present study showed most common drug prescribed were Anti-infective gargle, Analgesic, Multivitamin and Amoxicillin +Clavulinic acid combination of antibiotic. Prescribed by brand name is still matter of concern.

Kew Words: Tonsillitis, Prescribing pattern, AST.

INTRODUCTION

Tonsillitis is inflammation of the tonsils, two oval shaped pads of tissue at the back of the throat one tonsils on each side. Sign and symptom of the tonsils include swollen tonsils, sore throat difficulty swallowing and tender lymph node on the sides of the neck.

Inappropriate use of drug has been consistently reported for the treatment of common disease such as acute diarrhea and acute upper respiratory infections. Majority of cases of acute tonsillitis are caused by virus and are self limiting requiring only inexpensive treatment. However, inappropriate treatment of acute tonsils with excessive use of antibiotics and symptomatic medicines remain serious problem [1, 2, 3].

Tonsillitis is common ENT infection. Mostly children are more prone for tonsillitis and are common throat infection in children[2,4]. Lack of consensus among doctors about the best way to treat specific infection may account for the variation in drug use. Drug utilization studies in tonsillitis are very much important because it is common infection in developing countries and there is not important pipeline to prescribe medicine in tonsillitis infection. There are not sufficient studies found in literature to enhance or promote rational drug prescribing for tonsillitis. Thus, Present study helps to prescriber to select and prescribes suitable medicine for the tonsillitis. Hence, the present study has been carried out in ENT department of Tertiary care hospital.

OBJECTIVE

To Evaluate the patterns of drug used in Acute tonsillitis.

MATERIAL AND METHODS

I. **Study site**

This drug utilization study was conducted at the Department of ENT, MGM Medical College Hospital Kamothe Navi Mumbai, India.

I. **Study period**

The study was an observational study completed over a period of 5 months, from Feb 2014 to July 2014.

II. **Study design**

Open label, cross sectional observational study

III. **Sample size:** Total 100 patients were recruited for the study

IV. **Patient selection**

- **Inclusion criteria:** Patient confirming to acute tonsillitis and giving consent.
- **Exclusion criteria**: Patient who were seriously sick (emergency) and Patients of IPD.

V. Study material

A specially designed data entry format was used to enter all patients' details like patient name, age, sex, diagnosis drug regimen. The study and medication utilization form was designed for in-depth interview.

The following drug utilization indicators were assessed

Prescribing Indicators

- The number of total drug prescribed
- Average number of drug prescribed per patient
- Percentage of encounters with an antibiotic prescribed
- Percentage of encounters with an antipyretic prescribed;
- Percentage of encounters analgesic prescribed.
- Percentage of drugs prescribed by generic name
- Percentage of drug by brand name

RESULTS

Total 110 prescription of tonsillitis patents were analyzed for the pattern of drug used in Tonsilits patients. Maximum patients were belongs to age group 1-10 yrs (39.09%). Maximum tonsillitis patients were children. Maximum patients were male (55%). Total Drug prescribed was 495. Total antibiotic prescribed was 110.Average no. of drug prescribed was 4.95 and average no of antibiotic prescribed was 1. Almost every prescription had one antibiotic. Of total 110 patients, only 15 patients were sent for Antibiotic sensitivity test (AST). Antibiotic prescribed in 15 patients according to AST Report. Remaining 95 patients were prescribed by antibios as prophylactally. The organism isolated in AST Report were streptococcus, Psedumonas and Klebsilla sp. (**Table 1**)

Antibiotic were common drug for bacterial infection. Total 110 antibiotics prescribed in 110 patients. Among total 495 drug prescribed, the antibiotic constitutes 22.2%. Every prescription had one antibiotic. The common antibiotic prescribed were Amoxicillin+clavulinic acid (43.63%), Amoxicillin+cloxacillin (25.45%), Azithromycin (6.36%), Ciprofloxacin (8.18%), Levofloxacin (2.72%) and Cefotaxim(13.63%). **(Table 2)**

The drug pattern for tonsillitis patients showed wide drug list. The total 385 drug prescribed in tonsillitis patients other than antibiotic. Tonsillitis patients had lots other complication like fever, pain, nasal congestion, weakness due to antibiotic so large variety of drug were prescribes to overcome these complication. The antihistaminic (5.19%), Antipyretic (14.28%), Analgesic (24.67%), Nasal drop (519%), Anti-infective (25.97%) and multivitamin (25.97%) were prescribed in present study**. (Table 3)**

Table 1 Shows: Demographic Data of Tonsillitis Patients

SN	Particular	Results
1	Total Sample Size	110
2	Age	
3	1-10	43(39.09%)
4	11-20	36(32.72%)
5	21-30	21(19.09%)
6	>30	10(9.09%)
7	Male	55%
8	Female	45%
9	Diagnosis	Tonsillitis
10	Total drug prescribed	495
11	Total antibiotic prescribes	110
12	Average drug prescribed	4.5
13	Average antibiotic prescribed	1
14	No. Patients sent for Antibiotic sensitivity test	15
15	Organism isolated in 15 Patients	Streptococcus, Pseudomonas, Klebsilla sp.

Table 2 shows: Pattern of antibiotic Prescribed

SN	Drug name	Results (No.)	% prescribed
1	Amoxicilin+Clavulinic acid	48	43.63%
2	Amoxicillin+cloxacillin	28	25.45%
3	Azithromycin	7	6.36%
4	Ciprofloxacin	9	8.18%
5	Levofloxacin	3	2.72%
6	Cefotaxim	15	13.63%
7	Total drug	110	

Table 3shows: Pattern of Drug prescribed for tonsillitis

Other drug name	% prescribed
Antihistaminic (Levocetrizine)	20 (5.19%)
Antipyretic- (Paracetamol+chlorpheneramine+phenylpherine)	55(14.28%)

Analgesic- (Diclofenac)	90 (24.67%)
Nasal drop-(Oxymetazoline, xylometazoline)	20(5.19%)
Anti-infective- (Betadine Gargle)	100(25.97%)
Multivitamin	100(25.97%)
Total drug	385

DISCUSSION

The present study evaluates the general patterns of drug prescribing for tonsillitis patients in Otorhinolaryngology department. The drug prescribed by clinician reflects their attitude and usefulness of drug in treatment.

The present study reveals the total Drug prescribed was 495. Total antibiotic prescribed was 110.Average no. of drug prescribed was 4.95 and average no of antibiotic prescribed was 1. Almost every prescription had one antibiotic. Of total 110 patients, only 15 patients were sent for Antibiotic sensitivity test (AST). Antibiotic prescribed in 15 patients according to AST Report. Remaining 95 patients were prescribed by antibiotics as prophylactally. The organism isolated in AST Report were streptococcus, Psedumonas and Klebsilla sp . The similar study counducted by HS Rehan in Nepal[1] and Richard in mexico[5] showed that average drug prescription was 3.24 and 2.0 respectively, which is smaller than present study. The higher prescription of average drug increasing cost of therapy and also probable side effects. In Nepal[1] study, 18 patents were sent to laboratory for Antibiotic sensitivity testing which is almost similar to present study but the Nepal study does not reveals the organism isolated in Sensitivity reported patients as compare to present study.

The antibiotic pattern of present study revelas that, the common antibiotic prescribed were Amoxicillin+clavulinic acid (43.63%), Amoxicillin+cloxacillin (25.45%), Azithromycin (6.36%), Ciprofloxacin (8.18%), Levofloxacin (2.72%) and Cefotaxim(13.63%). The study conducted in Nepal[1] showedd little bit different paterrn for antibiotic therapy. Erythromycin, Co-trimoxazole, Ampicillin, Gentamycin and Lincamycin were prescribed in Nepal study conduted by HS Rehan which was not prescribed in present study. Although present study showed good adherence that limited antibiotic antibiotic were prescribed. Which is also differ from maxico[5] study conducted by Richard.

The common drug prescribed in present study showed, the antihistaminic (5.19%), Antipyretic (14.28%), Analgesic (24.67%), Nasal drop (519%), Anti-infective (25.97%) and multivitamin (25.97%), which very similar to the study conducted in Nepal[1]. The present

study also revelas that all the drug prescribed by brand name as compare to Nepal study had 3.03% drug prescribed by generic name. There declining of generic prescription day by day which is serious threat for society and country because it will increase cost of therapy which is very serious matter for developing country where most of the people belongs poor economic status.

The result of the present reveals that there is enormous scope to develop prescribing behavior to treat acute tonsillitis. The the combination of regulatory, informative, and educational interventions can bring in general improvement in quality of prescribing behavior and rational prescribing.

CONCLUSION

The present study showed most common drug prescribed were Anti-infective gargle, analgesic Multivitamin and amoxicillin +clavulinic acid combination of antibiotic. Although study showed good adherence that limited antibiotic were used. The study will help further to prescriber to prescribe the medicine. Prescribed by brand name is still matter of concern.

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