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EFFICACY OF ORAL CIPROFLOXACIN AND ORAL CEFIXIME IN LEUKORRHEA PATIENTS IN A TERTIARY CARE HOSPITAL: COMPARATIVE STUDY

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ABSTRACT

Leukorrhea is a yellowish, whitish, or greenish discharge through the female vaginal opening which may be usual or a marker of infection. In women, leukorrhea is a prevalent problem, especially in India which shouldn't be neglected. Leukorrhea is usually treated with fluoroquinolones and cephalosporin antibiotics. The initial objective of the study is to compare the efficacy of drugs ciprofloxacin and cefiximein patients with Leukorrhea. To determine which drug is more effective in a certain period to relieve the patient condition before laboratory investigations done. In this study, the efficacy on Ciprofloxacin v/s cefixime in patients with leukorrhea in gynecology OPD, a total of 100 samples was taken into consideration out of which 50 prescriptions consisting of ciprofloxacin and 50 prescriptions consisting of cefixime. It was observed statistically that relief of symptoms varied in 2 groups, however clinically Group-A subjects(ciprofloxacin) showed better efficacy compared to Group B (cefixime). These findings confirm that the ciprofloxacin is preferable for patients having leukorrhea (Whitedischarge).

Keywords: Antibiotics, Leukorrhea, gynecological problem, white discharge, leukorrhea symptomsassessment questionnaire, OPD of gynecology.

INTRODUCTION

Vaginal discharge is generally creamy and yellow-coloured discharge is referred to as leukorrhea. The vaginal discharge drains out microbes and cell debris through the vagina, keeping it clean and infection-free[4-6] of cases. Physiological leukorrhea is a normal episode of white vaginal discharge. [4-6] If the appearance, consistency, thickness, or odor of the discharge varies from common, leukorrhea might become abnormal. Antibacterial and antifungal medications are given to treat leukorrhea infections. Yeast infections are treated with vaginal gels and creams. Treatments are usually grounded on the fundamental source and require an expert diagnosis from a gynecologist before being implemented. Antibacterial such as fluoroquinolones, clindamycin, cephalosporins, tetracyclines, and nitrofurantoin are given to treat leukorrhea. Since most treatment options have antibiotic resistance and less efficacy in cases of lower abdominal infections, we chose to compare the 2 different classes of antibiotic efficacy that are readily available. Here Ciprofloxacin and cefixime are currently being compared in respect of efficacy among those classes.

MATERIALS AND METHODS

STUDY DESIGN: The study was designed to be a prospective, observational, in comparing the efficacy of ciprofloxacin v/s cefixime in patients with leukorrhea. A

total of 100 eligible patient prescriptions in females having leukorrhea will be collected and analyzed prospectively.

STUDY SITE: The study was conducted in a single centered 300 bedded outpatient ward of RVM hospital in the gynaecology department, Laxmakkapally, Medak district, Telangana.

STUDY PERIOD: This study was proposed to be conducted a for 6 months duration.

STUDY SAMPLE SIZE: In this study, the efficacy on Ciprofloxacin v/s cefixime in patients with leukorrhea in gynecology OPD, a total of 100 samples was taken into consideration. In this study 50 prescriptions consisting of ciprofloxacin and 50 prescriptions consisting of cefixime have been taken.

INCLUSION CRITERIA: Female Patients between 14-55yrs of age attending the OPD with leukorrhea; Outpatients of RVM hospital; Subjects interested in participation.

EXCLUSION CRITERIA: Inpatients; Patient receiving other disease treatments along with leukorrhea treatment; Patient taking any hormonal treatment; Patients suffering from sexually transmitted diseases.

SOURCE OF DATA: Patient data was collected using patient profile forms and medication history forms and based on the leukorrhea symptoms assessment questionnaire.

GEETHANJALI COLLEGE OF PHARMACY

PATIENT PROFILE FORM

COMPARATIVE STUDY ON EFFICACY OF CIPROFLOAXCIN V/S CEFIXIME IN LEUKORRHEA PATIENTS

Case No. OP No.

Patient Name : Age/Sex :

Visit Date : Follow-up date :

Chief complaints

Medication history : Medication prescribed :

Ciprofloxacin (Dose/Frequency)	Cefixime (Dose/Frequency)	Pre-treatment Symptom severity	Post-treatment (7days) Symptom severity

PATIENT SIGNATURE PHARMACIST SIGNATURE

ANNEXURE-I

ABOUT YOUR SYMPTOMS AND IMPACT ON YOUR LIFE

(For use at visit 1)

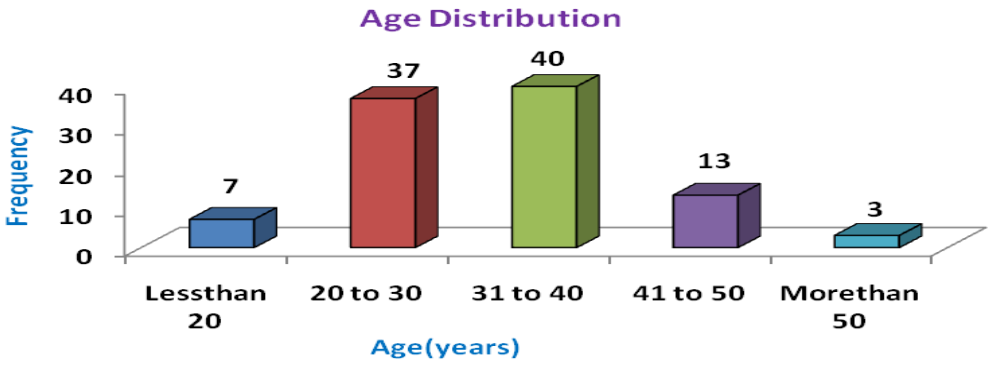
Please indicate whether you have/had the following symptoms/problems in the past 24hours and how severe they were(please circle one number of each symptom)				SYMPTOMS	If you have experienced these symptoms/problems in the past 24hours , please indicate how bothersome they were (please circle one number of each symptom)			
Did not have	Mild	Moderate	Severe		Not at all	A little	Moderately	A Lot
0	1	2	3	Severity of white discharge.	0	1	2	3
0	1	2	3	Itching	0	1	2	3
0	1	2	3	Abdominal pain	0	1	2	3
0	1	2	3	Burning / pain when passing urine	0	1	2	3
0	1	2	3	Constipation	0	1	2	3
0	1	2	3	Lower backache	0	1	2	3
0	1	2	3	General wekness	0	1	2	3
Yes.		No.		Smell	Yes.		No.	

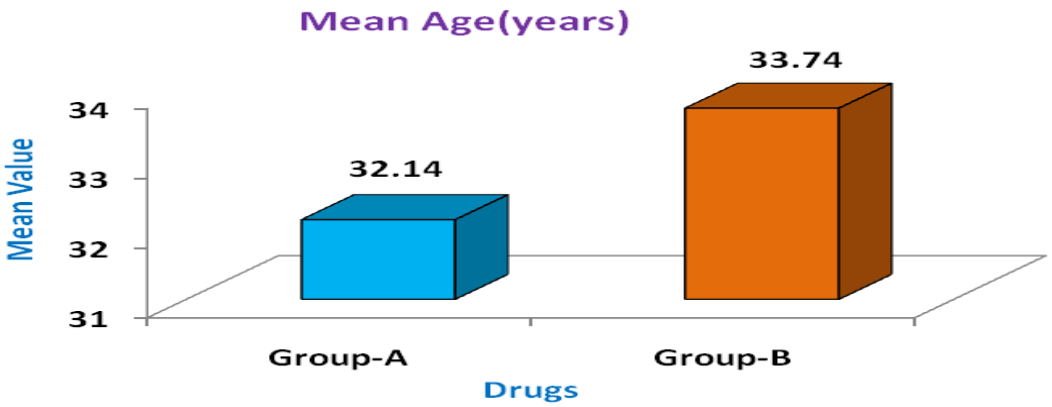
ANNEXURE-II

ABOUT YOUR SYMPTOMS AND IMPACT ON YOUR LIFE(for use at follow up):

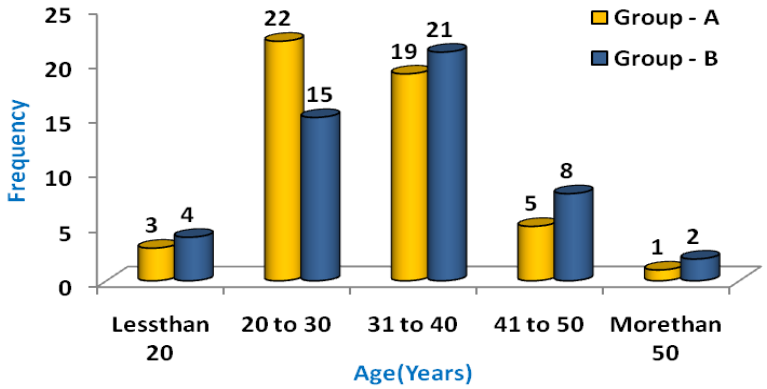
Since you last completed this questionnaire Please indicate whether you have/had the following symptoms/problems in the past 24hours and how severe they were(please circle one number of each symptom)				SYMPTOMS	If you have experienced these symptoms/problems, please indicate how bothersome they were (please circle one number of each symptom)			
Did not have	Mild	Moderate	Severe		Not at all	A little	Moderately	A Lot
0	1	2	3	Severity of white diacharge	0	1	2	3
0	1	2	3	Itching	0	1	2	3
0	1	2	3	Abdominal pain	0	1	2	3
0	1	2	3	Burning / pain when passing urine	0	1	2	3
0	1	2	3	Constipation	0	1	2	3
0	1	2	3	Lower backache	0	1	2	3
0	1	2	3	General weakness	0	1	2	3
Yes.		No.		Smell	Yes.		No.	

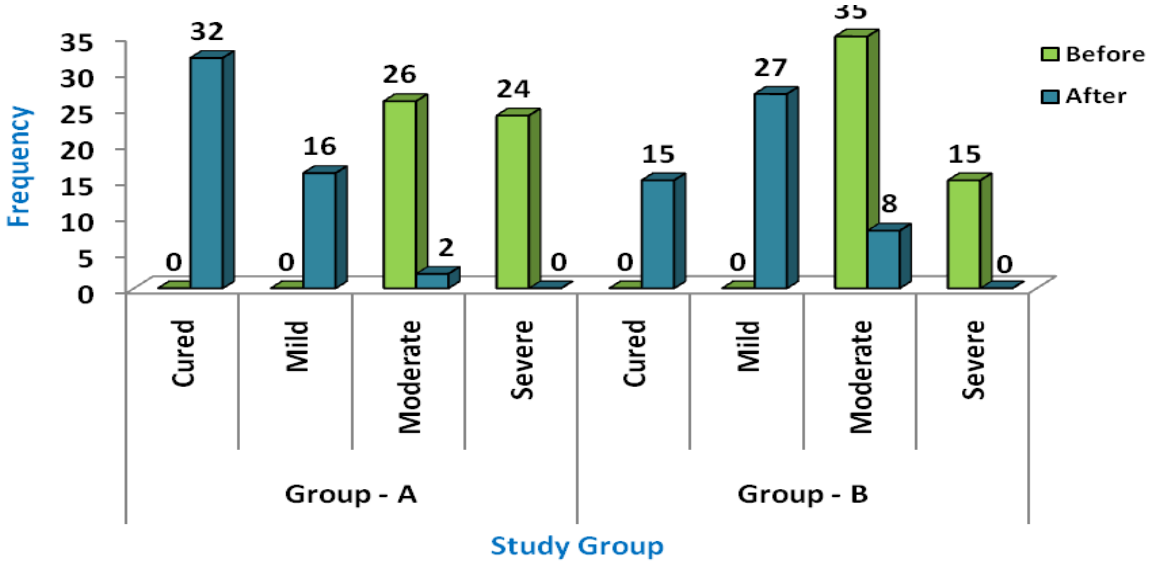
RESULTS AND STATISTICAL ANALYSIS





Drugs/Age(Years)	N	Minimum	Maximum	Mean	S.D
Group-A	50	16	54	32.14	8.28
Group-B	50	18	55	33.74	9.35
Total	100	16	55	32.94	8.82





Group - A

About your Symptoms/Problems Severity	Study Group		(z-value and P-value)
	Before	After	
Symptom severity	3.48±0.505	1.4±0.571	(6.33,0.0000*)
White discharge	2.48±0.505	0.4±0.571	(6.34,0.0000*)
Abdomen pain	1.34±1.171	0.08±0.274	(4.99,0.0000*)
Burning micturation	0.8±1.05	0±0	(4.18,0.0000*)
Constipation	0±0	0±0	(0,0.9999)
Lower Backache	1±1.143	0.08±0.34	(4.50,0.0000*)
General Weakness	0.72±1.089	0.12±0.328	(3.82,0.0000*)

*Values are expressed as mean ± S.D. *_Values are statistically significant by Wilcoxon Signed Ranks Test; P < 0.05*

Group - B

About your Symptoms/Problems Severity	Study Group		(z-value and P-value)
	Before	After	
Symptom severity	3.3±0.463	1.86±0.67	(6.29,0.0000*)
White discharge	2.3±0.463	0.86±0.67	(6.29,0.0000*)
Abdomen pain	1.12±1.081	0.08±0.274	(4.92,0.0000*)
Burning micturation	0.26±0.664	0.02±0.141	(2.46,0.014*)
Constipation	0.08±0.34	0±0	(1.63,0.102)
Lower Backache	0.96±1.068	0.12±0.328	(4.52,0.0000*)
General Weakness	0.52±0.931	0.04±0.198	(3.42,0.001*)

*Values are expressed as mean ± S.D. *_Values are statistically significant by Wilcoxon Signed Ranks Test; P < 0.05*

About your Symptoms/Problems Severity	Before		(z-value and P-value)
	Group - A	Group - B	
Symptom severity	3.48±0.505	3.3±0.463	(1.84,0.066)
White discharge	2.48±0.505	2.3±0.463	(1.84,0.066)
Abdomen pain	1.34±1.171	1.12±1.081	(0.99,0.3180)
Burning micturation	0.8±1.05	0.26±0.664	(2.85,0.004*)
Constipation	0±0	0.08±0.34	(1.750,0.0800)
Lower Backache	1±1.143	0.96±1.068	(0.13,0.08960)
General Weakness	0.72±1.089	0.52±0.931	(0.95,0.3430)

*Values are expressed as mean ± S.D. *_Values are statistically significant by Man-whitney Test Test; P < 0.05*

About your Symptoms/Problems Severity	After		(z-value and P-value)
	Group - A	Group - B	
Symptom severity	1.4±0.571	1.86±0.67	(3.53,0.0000*)
White discharge	0.4±0.571	0.86±0.67	(3.53,0.0000*)
Abdomen pain	0.08±0.274	0.08±0.274	(0,0.9999)
Burning micturation	0±0	0.02±0.141	(1,0.3170)
Constipation	0±0	0±0	(0,0.9999)
Lower Backache	0.08±0.34	0.12±0.328	(1,0.3170)
General Weakness	0.12±0.328	0.04±0.198	(1.47,0.1420)

*Values are expressed as mean ± S.D. *_Values are statistically significant by Man-whitney Test; P < 0.05*

Descriptive statistics and Graphical presentation of data analysis on "Efficacy Of Oral Ciprofloxacin And Oral Cefixime In Leukorrhoea Patients In A Tertiary Care Hospital: Comparative Study" values are expressed as Frequency, percentage, mean and SD. compare between study group Lab parameters, clinical features score using Wilcoxon Signed Ranks Test and Man-whitney test, calculated correlation coefficient between study groups using spearman correlation test. In all analysis, $P < 0.05$ was considered to be significant. All statistical analyses were performed using SPSS statistical software, version 22.

Wilcoxon signed ranks test and Man-Whitney test was used to make comparisons. Graphical representations: The data was represented graphically using histograms. Histograms were used to represent age distribution, abdomen pain, LBA, white discharge, burning micturition, constipation, and generalized weakness. This study compares the 2 medicine's effectiveness in the Rx of leukorrhea. This study establishes a statistical significance by using a questionnaire to assess the groups' P lessthan 0.005 before treatment and P less than 0.005 after treatment. Ciprofloxacin was more effective than cefixime.

DISCUSSION

Ciprofloxacin and cefixime are antibiotics being used to treat leukorrhea. This drug suppresses the growth of germs that cause infections. General Adverse effects of the drugs listed above are vomiting and queasiness. Ciprofloxacin, additionally, has a lower rate of bacterial resistance than other antibiotics. Ciprofloxacin causes tendon difficulties, and cefixime causes breathing problems. Any side effects hadn't been documented in any of the subjects who were administered this medicine. Of the 100 participants, only one reported nausea when taking ciprofloxacin, and tworeported nausea when taking cefixime. The objective was to determine the two commonly used and easily available medication's efficacy for leukorrhea, namely, ciprofloxacin and cefixime, which are recommended for leukorrhea patients. Leukorrhea symptoms were assessed by leukorrhea symptoms assessment questionnaire.Some changes had been noted in the assessment scale from day 1 to day 7 which are expressed herein in percentage form, mean, and SD.

CONCLUSION

In this trial, ciprofloxacin is marginally more effective, without any side effects compared to cefixime in subjects having leucorrhea. Furthermore, ciprofloxacin demonstrated better white discharge management with no impact on activity parameters, compared to cefixime. Therapeutic desirable profile for efficaciousness and fast recovery makes, ciprofloxacin over cefixime a favorable option for physicians for treating leucorrhea. Therefore, ciprofloxacin given for 7 days in subjects having leucorrhea considerably reduces symptoms and improves QOL with minor side-effects like nausea. The reduction of white discharge was ascertained after the use of ciprofloxacin. The subjects signs and symptoms were improved markedly after the treatment. Analysis of leukorrhea pre and post treatment , ciprofloxacin has reduced symptoms intensity inflicted by subjects. Out of 100 patients who received ciprofloxacin 1 patient reported the side effect of nausea and patients who received cefixime , 2 patients reported the side effect of nausea.

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