# OUTCOME OF SYNDROMIC MANAGEMENT IN CASES OF CHRONIC VAGINAL DISCHARGE

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## *ABSTRACT*

***Objective:*** *To see the outcome of syndromic management in 100 patients of chronic vaginal discharge.*

***Material and Methods****: This descriptive study was conducted in outpatient department of Obstetrics and Gynaecology, Hayatabad Medical Complex, Peshawar from 1st January 2007 to 30th June 2007. Patients aged from 16 to 50 years with chronic vaginal discharge of more than 6 months duration were included in the study. Pregnant patients and those with the history of Cervical Intraepithelial Neoplasia (CIN), Carcinoma of the Cervix, Ovary or Endometrium were excluded from the study. A detailed history and examination was done and a Proforma was filled. All these patients were treated with the syndromic management as recommended by the World Health Organization (WHO) in which no laboratory tests are done and patients are treated empirically with the antibiotics as per criteria of WHO.*

***Results:*** *The mean age of the patients was 32±8.08 years. Vaginal infection improved in 56% of the cases with a single course of antibiotic, in 84% with a second course, 12 patients were lost to follow up and 5 patients who did not improve with two courses of antibiotics had big cervical erosions, were subjected to Cryo therapy.*

***Conclusion:*** *In settings, where bedside tests like microscopy, Potassium Hydroxide, wet mount films and tests for Chlamydia and gonorrhea are not available, syndromic management is a reasonable way of treating cases of chronic vaginal discharge.*

***Keywords:*** *High Vaginal Swabs (HVS). Cervical Intraepithelial Neoplasia (CIN), Sexually Transmitted Disease (STD), Sexually Transmitted Infections (STIs), Tinidazole plus Fluconazole (TF), Metronidazole plus Clotriamazole (MC).*

## INTRODUCTION

Normal vaginal discharge is white, becoming yellowish on contact with air, due to oxidation. Physiological discharge increases due to increased mucus production from the cervix in mid-cycle, pregnancy, and women on oral contraceptives. The common causes of vaginal discharge are Bacterial vaginosis, Trichomoniasis, Candidiasis and cervicitis due to Chlamydia, and Gonococcal infections. About 20-25% of women who attend gynaecology outpatient department complain of vaginal discharge and leucorrhoea. Women with vaginal discharge and a positive risk assessment could be offered treatment for Gonococcal and Chlamydia cervicitis[1].

Sexually transmitted disease (STDs) is a major cause of adult morbidity worldwide. In 1991, the World Health Organization (WHO) introduced the concept of the "syndromic approach" to managing sexually transmitted diseases and vaginal discharge in low-income countries[2].

Syndromic management is an inexpensive and effective method for the treatment of symptomatic sexually transmitted infections (STIs) and vaginal discharge in which no laboratory tests are required and the patient is treated empirically on antibiotics. Performing culture is expensive and time consuming and there is risk of loss of patients on follow up. The components of case management include: history taking, examination, correct diagnosis, early and effective treatment, advice on sexual behavior, promotion and/or provision of condoms, partner notification and treatment, case reporting and clinical follow up as appropriate[1,3,4,5].

Single-dose tinidazole plus fluconazole (TF) is as effective as multiple-dose Metronidazole plus Clotriamazole (MC) treatment for 7 days with

metronidazole plus 3 days of treatment with vaginal clotrimazole in the syndromic management of vaginal discharge, even among women with Human Immuno Deficiency Virus (HIV) infection. Given its low price and easier adherence, TF should be considered as a first-line treatment for vaginal discharge syndrome[6,7]. According to WHO guidelines, macrolides or quinolones can be added in the above empirical drug regimen if cervicitis, mucopurulent vaginal discharge or in patients coming in High Risk groups.1

In Pakistan, the World Health Organization (WHO) syndromic management guidelines are followed for STI management only by 29% of public and private sector doctors and 5% of traditional healers[8].

This study was performed to assess the effectiveness of syndromic management and to develop the lines of management according to WHO Guidelines, worldwide research and our experience.

## MATERIAL AND METHODS

It was a descriptive study done in hundred married patients between the age group 16 and 50 years coming with chronic vaginal discharge for more than 6 months to the outpatient department of Hayatabad Medical Complex, Peshawar from 1st January 2007 to 30th June 2007. A Proforma was then filled by taking a detailed history and examination. The speculum examination was done under good light followed by per vaginum examination..

All these patients were treated with the syndromic management as recommended by the World Health Organization (WHO) in which no laboratory tests are done and patients are treated empirically with the antibiotics as per criteria of WHO. In the first course, 100 patients included in the study were given single dose regimen which consisted of macrolide one gm, along with tablet Secnidazole 2 gm and Capsule Fluconazole 150 mg all given orally in stat doses. The husbands were given tablet Secnidazole 2 gm stat. The patients were recalled after 2 weeks and if not improved were given a second course of antibiotics according to the syndromic management, with Quinolones given 250mg BD and Tab. Metronidazole 400mg BD for 14 days, and Clotrimazole vaginal cream was added for one week in case if patient symptomatic for Candida, if the complaint of discharge was present even after these courses of antibiotics, then cryotherapy was used for the treatment of patients with big cervical erosions and persistent mucoid discharge, provided the papsmear report was normal in these patients.

## RESULTS

All 100 patients had the vaginal discharge. All patients were Pakistanis. The distribution of vaginal discharge according to the age group is shown in Table 1. Mean age was 32 years with SD of 8.08. The associated symptoms with vaginal discharge according to the age group is shown in Table 2 that included pain hypogastrium in 87, backache in 88, pruritus vulvae 54, postcoital bleeding 14 and cervical erosion in 23 patients. They were then put on the syndromic management according to the WHO criteria and the vaginal discharge improved in 56% of the patients after a single course of antibiotics, 44 required a second course out which 12 patients were lost to follow up, a total of 32 patients returned for follow up, 27 (84%) among them responded to second course of antibiotics and 5 had cryotherapy performed, and the complaint of vaginal discharge of all of these patients improved as shown in Table 3.

The response rate was more than 50% in the first course of antibiotics in other symptoms associated with vaginal discharge as shown in Table 4 which improved to 84% after the second course of antibiotics consisting of multiple drug regimens in patients who returned for follow up.

The complaint of postcoital bleeding did not improve with both the courses, rest of the associated complaints improved in these patients. They were advised a close follow up with pap smear.

The other complaint in which the patient showed a slow response were those with the cervical erosion, five cases had not improved even with the second course of antibiotics, in these patients the complaint of vaginal discharge was also there, these patients were subjected to Cryotherapy and the complaint of vaginal discharge improved in all of these patients.

**Table 1: Type of predominant vaginal discharge according to age group**

| Age Group | Mucopurulent Discharge | Candidal Discharge |
|---|---|---|
| 16 - 26 | 16 | 2 |
| 27 - 36 | 28 | 15 |
| 37 - 46 | 19 | 8 |
| 47 and > | 6 | 6 |
| Total | 69 | 31 |

**Table 2: Descriptive details of study population**

| Age Group | Pain Hyypogastrium | Backache | Pruritus Vulvae | Postcoital Bleeding | Cervical Erosion |
|---|---|---|---|---|---|
| 16 - 26 | 15 | 17 | 11 | 3 | 3 |
| 27 - 36 | 35 | 22 | 20 | 4 | 8 |
| 37 - 46 | 26 | 23 | 23 | 7 | 12 |
| 47 and > | 11 | 0 | 0 | 0 | 0 |
| TOTAL | 87 | 88 | 54 | 14 | 23 |

**Table 3: Overall response after treatment in cases of vaginal discharge**

| Type of treatment | Total number of patients given treatment | Responded | Not Responded | Lost to follow up |
|---|---|---|---|---|
| First course of Antibiotics | 100 | 56 (56%) | 44 (44%) | NIL |
| Second course of Antibiotics | 44 | 27(84%) | 5 (16%) | 12 |
| Cryotherapy | 5 | 5 | – | Nil |

**Table 4: Relief of symptoms after first course in cases of vaginal discharge and associated symptoms**

| Symptoms | Number of patients | Number of patients that showed positive response to treatment |
|---|---|---|
| Mucopurulent Discharge | 69 | 43 (62.31%) |
| Candidal Discharge | 31 | 13 (41.93%) |
| Pain Hypogastrium | 87 | 49 (56.32%) |
| Backache | 88 | 51 (57.95%) |
| Pruritus Vulvae | 54 | 33 (61.11%) |
| Postcoital Bleeding | 14 | Nil |
| Cervical Erosion | 23 | 11 (47.82%) |

## DISCUSSION

Worldwide, the appropriate management of STDs should be given a high priority in order to prevent the transmission of HIV. Successful management of STDs depends on treatment protocols and patients' adherence to treatment regimens. Current syndromic management protocols avoid the need for expensive laboratory tests and are beneficial where follow-up and treatment on the basis of subsequent laboratory test result is poor. In our study, we used the single drug regimen of tablet Azithromycin 1 gram, tablet Secnidazole 2 grams and Capsule Fluconazole 150 mg all given orally in stat doses. (Canestin vaginal tablet 500 mg can also be used in place of Capsule Fluconazole 150mg). This single drug regimen is cheap, effective, and given in a single dose orally with an efficacy of 95-98 %[9].

The single dose combination allows good compliance, complete treatment at the first visit thus preventing the spread of sexually transmitted disease and HIV. This can allow supervised or directly observed therapy for both partners leading to almost 100% cure rate and low relapse rate. Immediate complete treatment prevents secondary

complications and development of resistant organisms thus proving to be cost effective in the long run[9, 10].

For syndromic management in the treatment of STDs, single dose Azithromicin might prove to be more effective and convenient alternative to the use of both ciprofloxacin and doxycycline in the treatment of cervico-vaginal discharges.[11] Since a high percentage of women, in our study were having cervicitis, or cervices which bled to touch and majority of the patients had received multiple irregular courses of antibiotics before coming to the hospital so treatment for Gonoccocal and Chlamydial infections were added like Azithromycin in first course and Quinolones in the second course. It is important to treat these two diseases ( Chlamydia and gonorrhea) in vaginal discharges, as 70% of chlamydial and 30% of gonococcal infections are asymptomatic and remain undetected and the rates of complications due to these two infections is high[9,13].

The vaginal discharge is often polymicrobial in nature. When any of these three drugs is used individually, the desired effect may or may not be achieved due to diversity of pathogenic agents.[9] In a study by Patani KV(1994), where one of these three drugs was used individually for vaginal discharge, the clinical cure rate was less than 40%.[12] As compared to this, in our study, clinical cure was high i.e. 56% with single dose combination therapy which was comparable to two other studies done in India. [9,10] In a randomized controlled trials done in West Africa it was found out that the single drug regimen is as effective as multiple drug regimen in syndromic management of patients with vaginal discharge[6,10]. Randomized controlled trials show that the chances of developing infertility, tuboovarian abscesses and PID (Pelvic Inflammatory Disease) are increased after chronic vaginal discharge so empirical fourteen days treatment should be given in these patients.[13]In our study, a second course of antibiotics of full 14 days empirical treatment consisting of Quinolones and Metronidazole was given in patients who were not clinically well after their first course and 84% improved with this multiple drug regimen[13,14].

An extensive cervical ectropion can cause heavy mucoid discharge, which if troublesome to a woman with normal cervical smear test results, may be helped by intravaginal acetic acid. Some cases may warrant cryotherapy to relieve symptoms.[5] In our study, 5 cases which did not got cured with two courses of antibiotics, were having mucoid discharge and big cervical erosions, cryotherapy was done in them and the complaint of vaginal discharge improved in all of them.

## CONCLUSION

Single-dose is as effective as multiple-dose in the syndromic management of vaginal discharge, even among women with HIV-infection. Given its low price and easier adherence, single dose should be considered as a first-line treatment for vaginal discharge syndrome and multiple drug regimens can be given if the symptoms persist after single drug regimen as the chances of developing complications due to chronic vaginal discharge are high and investigations like High Vaginal Swabs should be performed when syndromic management fails.

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