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Research Article

## Vaginal discharge: evaluation of syndromic management in Chhattisgarh Institute of Medical Sciences, Bilaspur, C.G.

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### ABSTRACT

**Background:** Vaginal discharge is one of the most common problems faced by women. It may be physiological or pathological. Most of the time it caused by bacteria, fungi or parasites and many times these infections are sexually transmitted. Thus it is important to treat vaginal discharge as syndrome. Syndromic management is an inexpensive and effective method to treat vaginal discharge and no preliminary laboratory test are required. We have studied 300 patients attending OPD with complain of vaginal discharge to access the efficiency, acceptability and tolerance of one day combination kit therapy (azithromycin 1 g, fluconazole 150 mg and Secnidazole 2 g).

**Methods:** Three hundred women were selected randomly with the complaint of vaginal discharge. They were examined thoroughly and advised to take one day kit therapy. Their partners were also advised to take same therapy. They were called after two weeks to know about their symptoms and for examination.

**Results:** Sixty percent women had excellent response for vaginal discharge, 75% women had excellent response for urinary symptoms and 77.3% women had excellent response for pruritus vulvae.

**Conclusions:** The combination kit therapy in vaginal discharge allows a simple and fast assured therapy, with high cure rate for vaginal discharge.

**Keywords:** Vaginal Discharge, Syndromic management, Combination kit therapy, STD

### INTRODUCTION

Normal vaginal discharge is white, becoming yellowish on contact with air due to oxidation. Physiological discharge rise due to increased mucous production from the cervix in mid cycle pregnancy and women on oral contraceptive. The cause of vaginal discharge is bacterial vaginosis and cervicitis due to chlamydia and gonococci infection. Vaginal discharge is one of the most common and nagging problems faced by women.

About 20-25% women who attended Gynecology outpatient department (OPD) complain vaginal discharge and leucorrhea. Though in few cases discharge may be physiological, increasing normal vaginal secretions, in

more than 60% of cases it is because of infections of vagina or the cervix, caused by bacteria, fungi or parasitic agent.<sup>1</sup>

Many a times these infections are sexually transmitted. Untreated or underrated (STD) is more prone to disease spread and runs a greater risk of contracting HIV. Vaginal discharge is often polymicrobial and treatment of only one or the most apparent cause may lead to a flare up and clinical manifestation of the other causes. Thus, it is important to treat vaginal discharge as a syndrome, than a single, most clinical apparent cause or disease. In syndromic management, diagnosis or treatment is not based on specific disease but rather on syndrome i.e. group of clinical findings in patient. No laboratory test is

required and it is an inexpensive and effective method and the patient is treated empirically on antibiotics. Treatment is generally given for most of the diseases that could cause that syndrome.<sup>2</sup>

## METHODS

Three hundred women who had the complain of vaginal discharge and attended Gynecology OPD from January 2014 to December 2014 in Chhattisgarh Institute of Medical Sciences, Bilaspur, were selected randomly. Their symptoms, menstrual and obstetric history, relevant past and personal history were documented and any history suggestive of STD in the woman and her husband was taken. Detailed gynecologic examinations were carried out and the severity and the type of discharge were noted. Women with severe type of vaginal discharge with or without chronic cervicitis were included. Pregnant and lactating women and women with history of drug allergy or those who had received any type of medication for vaginal discharge for last two weeks were excluded. All the patients were explained the type and design of study and due consent were taken. The couples were explained the sexual root of transmission and the importance of getting medication for both the partners together. Couple was given one day combination kit, containing: Fluconazole (150 mg) - 1 Tablet, Azithromycin (1 gm) - 1 Tablet, Secnidazole (2 gm) - 2 Tablet. These patients (Husband and wife) were asked to take these tablets after meals on the same day. The couple was advised abstinence for fourteen days. On follow-up visits after two weeks, patients were asked about improvement of the symptoms in the percentage; tolerance of tablets in the form of adverse effect observed after the consumption.

## RESULTS

This is a prospective study conducted in Chhattisgarh Institute of Medical Sciences, Bilaspur from January 2014 to December 2014. Out of 4466 gynaecological cases attending OPD, 300 cases presented with severe vaginal discharge which was 06.71% of total gynaecological registration.

According to Table 1 shows 120 cases were associated with urinary symptoms, 135 cases were associated with pruritus vulvae and 18 cases with pain abdomen. They were divided in four groups according to response to kit therapy. Patients relieved of 75-100% of symptoms, 50-75%, 25-50% and <25% were categorized as excellent, moderate, minimal and no response, respectively (Table 2).

Table 3 shows that 180 (60%) women had excellent response for vaginal discharge. Ninety six (32%) and eight (61%) women showed moderate and minimal response for vaginal discharge, respectively. Six (2%) women had no response. Table 3 shows women relieved of their urinary symptoms. Out of 120 women, 90 (75%),

21 (17.5%) and six (5%) had excellent, moderate and minimal response, respectively. Three women had no response at all.

**Table 1: Symptoms presented by the women.**

Symptoms	Number of patients
Vaginal discharge	300
Urinary symptoms	120
Pruritus vulvae	135
Pain abdomen	18

**Table 2: Response to Kit Therapy Grading.**

Excellent	75-100%
Moderate	50-75%
Minimal	25-50%
No response	<25%

Table 3 also shows response of women for symptoms of pruritus vulvae. Out of 135 women, 105(77.7%), 24 (17.7%), three (2.2%) had excellent, moderate and minimal response, respectively. Pain abdomen was completely relieved in 61.3% women (Table 4). Most common adverse effects of kit therapy were anorexia (20%) metallic taste (18%) nausea (19%), vomiting (6%) epigastric pain (15%) and headache (4%). No women discontinued the therapy because of side effects (Table 5).

## DISCUSSION

The commonest presentation of STD is vaginal discharge. Amongst women, the common causes of vaginal discharge are trichomonal vaginitis, candidial vaginitis and bacterial vaginosis. However, cervicitis caused by gonorrhoea and Chlamydia trachomatis also cause vaginal discharge, although cervicitis causing vaginal discharge is less common, it is a more serious cause as it may lead to pelvic inflammatory disease and its related complications. More often, vaginal infection is polymicrobial in nature.<sup>1</sup>

Untreated STD is more prone to disease spread and runs a higher risk of contracting HIV; STDs increases the risk of HIV.<sup>2</sup> The diagnosis and subsequent treatment often depends on clinical and laboratory diagnosis. In vaginal discharge, clinical diagnosis is often inaccurate and has limited value.<sup>3</sup> The final diagnosis depends upon laboratory diagnosis which is time-consuming, expensive and many a time, not available.

In 1998, WHO introduced the concept of syndromic management. In syndromic management, treatment is based not on specific disease identified by testing but on syndrome which is a group of clinical findings. Treatment is generally given for all or least for most commonly seen diseases that could cause that syndrome. To be effective, syndromic approach mostly considered

the data on prevalence of STD in a given area, antibiotic resistance and drug availability. As it is important to assess risk, which is helpful to decide, whether to treat cervicitis, which is likely to be associated with vaginitis. Drug selected for syndromic management should have high efficacy, few side effects, cost-effective, should be orally administrable and preferably given as a single dose to increase acceptance and compliance. Syndromic

management has many advantages over conventional methods. It decreases dependence on laboratory tests in resource-limited countries like India where laboratory testing may be too expensive and are often unavailable. Even where laboratory diagnosis is available, it is time-consuming and often does not correlate with clinical findings.

**Table 3: Response in percentage.**

Symptoms	Number	Excellent %	Moderate %	Minimal %	No response %
Vaginal Discharge	300	180 (60%)	96 (36%)	8 (6%)	6 (2%)
Urinary Symptoms	120	90 (75%)	21 (17.5%)	6 (5%)	3 (2.5%)
Pruritis Vulvae	135	105 (77.7%)	24(17.7%)	3 (2.2%)	3 (2.2%)

**Table 4: Relief of pain abdomen.**

Symptom	Number	Complete relief	Partial relief	No response
Pain abdomen	18	61.1%	4 (22.2%)	3 (16.6%)

Syndromic approach greatly simplifies complete administrative process with advanced medical -skills or experience. In developing countries like ours, it significantly expands the pool of healthcare providers thus reducing the prevalence of such diseases. The most important benefit of syndromic management is that treatment begins immediately.

Patient acceptance and compliance is good. In our study, few women experienced some adverse effect but no women discontinued the therapy.

**Table 5: Adverse effect of kit therapy.**

Symptoms	Number of patient	%
Anorexia	60	20%
Metallic taste	54	18%
Nausea	57	19%
Vomiting	18	6%
Epigastric pain	45	15%
Headache	12	4%
Allergic rash	Nil	Nil
Discontinuation of medicine	Nil	Nil

The most commonly encountered etiologies of vaginal discharge are trichomoniasis, moniliasis, bacterial vaginosis, chlamydial infection and gonorrhoea. Therefore syndromic management should be directed against all these diseases. Both trichomoniasis and bacterial vaginosis can be treated with metronidazole. In the past five decades, metronidazole was the first treatment.

Now there is increased resistance to metronidazole for trichomoniasis, secnidazole single dose 2 g has better tolerability and patient compliance. It has larger half-life and a large duration of action with less side effects. A single 2 g dose is very effective in bacterial vaginosis and trichomoniasis.<sup>4,5</sup>

Vaginal candidiasis is managed with vaginal tablets like clotrimazole or miconazole. This topical treatment is often inconvenient and unacceptable due to various cultures, religious and social factors. Oral fluconazole has increased acceptance and is the only drug which is very effective and well tolerated.<sup>6</sup>

Chlamydia and gonorrhoea are routinely treated with tetracycline which is given in multiple doses. This led to poor patient compliance and missed doses leading to relapse. Azithromycin 1 g single dose is very effective against chlamydia and gonorrhoea.<sup>7</sup> In our study, we got excellent response for vaginal discharge in 60% of cases. Pepin and Sobela et al observed complete relief of vaginal discharge with syndromic management in 66%.<sup>8</sup>

Bornstein et al studied effect of combination therapy versus cotrimazole therapy on vaginitis.<sup>9</sup> They enrolled 165 patients out of which 84 were given combination therapy and 81 were on cotrimazole therapy. They found more effective response in combination therapy (99%).

Samina et al observed effect of combination therapy in chronic vaginal discharge with 56% improvement after first course and 84% improvement after second course.<sup>10</sup>

Kissinger et al studied effect of single versus 7 days dose of metronidazole for treatment of *Trichomonas vaginalis*

among 270 HIV positive patients.<sup>11</sup> They found 7 days treatment is more effective in HIV positive patients.

Onyekonwn et al observed 195 patients of vaginal symptoms and found 36% relief by single day therapy.<sup>12</sup>

Milsana et al studied 242 women in South Africa who were high risk for STI and genital infection and had clinical evident discharge, they found 25 patients (12.3%) had positive laboratory test for diagnosis of vaginitis. They found syndromic treatment at initial stage of disease had better response.<sup>13</sup> Similarly A Lewis et al studied 1232 cases of vaginal discharge and they found 33.8% reduction in vaginitis.<sup>14</sup>

Pamer et al studied prevalence of sexually transmitted infection in response to syndromic treatment among 415 married women of rural area of Mumbai. They found after syndromic treatment symptomatic, clinical and laboratory prevalence has been reduced for 39% to 14%, 323% to 9% and 26% to 6% respectively.<sup>15</sup>

Sena et al also found that syndromic or single dose therapy is effective and cost effective management for initial stage of illness.<sup>16</sup>

Alam et al studied knowledge of 225 rural Medical practitioners about treatment of vaginitis, STI and training given to them for proper drugs and doses. Combination kit was advised to them to use as first line treatment for white discharge.<sup>17</sup>

Maladkar et al Studied 495 patients of mixed vaginal discharge and found 99.2% reduction in vaginal burning and irritation by 7 days vaginal pesseries and combination single dose oral therapy.<sup>18</sup>

Combination kits are cheaper and effective when given in single day dose orally with efficacy of 95 to 98%. Single day dose allows good compliance, treatment at first visit thus preventing the speed of sexually transmitted disease and HIV. It has been observed that immediate complete treatment prevent secondary complications.

## CONCLUSIONS

Combination kit therapy in syndromic management of vaginal discharge is cheaper, effective and is given in single doses, with excellent efficacy. It allows good compliance, complete treatment at first onset, thus prevent STD transmission and HIV transmission.

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