Vaginal Discharge: Perceptions and Health Seeking Behavior among Nepalese Women

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Introduction

Vaginal discharge is one of the most common symptoms of gynecological morbidity.1 Vaginitis is the most prevalent cause followed by cervicitis2, however vaginal secretions also increase physiologically during mid-cycle and pregnancy.

Sexually Transmitted Diseases (STDs) and Reproductive Tract Infections (RTIs) often present with vaginal discharge.3 Presence of an STD increases the likelihood of contacting HIV as these diseases facilitate HIV transmission.2,4-6 In order to restrain HIV and AIDS, control of other STDs is imperative.2,7 Though STD infection rates are similar in both sexes, women bear the major burden of complications and serious sequelae.4,5,8 Hence, STD management in women is particularly important.9

The two important components of STD control program are case identification and appropriate management. STD case identification is extremely difficult in most parts of the world as these diseases are considered social problems and are frequently surrounded by prejudices and poor information.8,10 Social barriers in STD control are particularly pronounced in rural sectors of developing countries where the majority of population lives.11 Because of fear and shame victims commonly hide their conditions.

In India and Nepal STDs remained one of the commonest disease next to Malaria and Pulmonary Tuberculosis12 and its incidence is increasing in Nepal.13 Vaginal discharge was the most frequently reported symptom in gynecology. STD and ante-natal clinics14,15 in Nepal. In these patients it is usually difficult to differentiate between physiological and pathological discharges only on the basis of history and clinical examination.

Pathological discharge can be caused by more than twenty different organisms.4,16 WHO recommends algorithms for the treatment of this symptom in developing countries. These algorithms are poor predictors of an STD.10 If the management is based on these algorithms then patients having only one etiology are treated for several diseases. Laboratory test can sometimes be required to identify the specific micro-biological agent which can be treated effectively with specific anti-microbial agents.5,17-19 Given the general poor correlation observed between client symptoms, clinical signs and laboratory findings, the identification of appropriate, simple and low cost diagnostic test will be an effective strategy for better management of vaginal discharge and hence STDs.

This study was conducted to know Nepalese women's perceptions about vaginal discharge and STDs in the context of causes, routes of transmission, characteristics of normal and abnormal discharge and health seeking practices so that services can be geared towards patients needs. The study also aimed to correlate client symptoms, clinical signs and laboratory findings so that appropriate test can be identified for vaginal discharge management in the local context.

Subjects and Methods

We conducted the study at the outdoor patient department of Thapatali Maternity Hospital, Katmandu, Nepal in May and June 1997. This is a public hospital which provides gynecological, obstetric and STD treatment services to patients from the city and surrounding villages. The study included focus group discussions, quantitative in-depth interviews and laboratory evaluations

Focus Group Discussions

We conducted five focus group discussions, three with ante-natal clients and two with gynecological patients in the outdoor patient departments of Thapatali Maternity Hospital. In each discussion six to eight women participated. Consent was taken for participation. A trained research assistant, who held a masters degree in sociology, facilitated the discussions in Nepali. The facilitator encouraged active participation. An observer documented the whole process of group discussion and took notes. The objectives of these discussions were to comprehend women's perceptions about characteristics of normal and abnormal vaginal discharge, and the causes, routes of transmission and health seeking behavior for vaginal discharge and STDs. Another objective of these

focus groups was to develop the structured questionnaire for the in-depth quantitative interviews.

In-depth structured interviews

The quantitative interview questionnaire was based on the information collected through focus group discussions. A research assistant administered a filtering questionnaire to all newly registered outdoor patients. This questionnaire included basic demographic information and one question to find out if vaginal discharge was the presenting complaint. Study personnel encouraged women who presented with vaginal discharge as their chief complaint to see the specific study physician for gynecological examination and laboratory investigations. Women were, however free to bypass the research physician and consult the regular outpatient staff.

Study personnel interviewed patients presenting to the study physician using a structured questionnaire. This questionnaire included questions on duration, causes, associated symptoms, knowledge about normal and abnormal discharge and health seeking behavior in relation to vaginal discharge. The study physician performed gynecological examination, including vaginal, bimanual and speculum examinations, collected samples for laboratory investigations and sent the patient to the laboratory for blood examination. For the clinical diagnosis, vaginal secretions were classified in two ways, quantity and quality. Quantitative categories were normal or large in amount. On the basis of quality, vaginal discharge was categorized as floccular, homogenous and curd-like and endo-cervical as normal or muco-purulent.

The research assistant interviewed each case using a structured questionnaire. This questionnaire included questions on duration, causes, associated symptoms, knowledge about normal and abnormal discharge and health seeking behavior in relation to vaginal discharge. Based on laboratory results, the study physician provided appropriate treatment to all cases on the follow-up visit.

Laboratory Tests

All patients with vaginal discharge gave consent for laboratory investigations. Vaginal fluid from the posterior vaginal fornix was tested for pH and then used to prepare a wet mount and KOH specimens and examined microscopically for Trichomonads, Lactobacilli, the proportion of clue cells present and fungal elements (the slide was gently heated and re-examined if fungal elements were not seen initially). It was also subjected to an amine ("whiff") test. A smear was made from an endo-cervical swab and subjected to Methylene blue stain and microscopy examination for intracellular diplococci. Endocervical swabs were also taken for Gonorrhoea culture (immediate inoculation onto Thayer Martin and choclate agar media) and culture for Chlamydia. Blood samples were also collected to diagnose Syphilis through Venereal Disease Research Laboratory (VDRL) test and to confirm through Treponema Pallidum Haemagglutination (TPH) test.

Table. Etiological agents in vaginal discharge patients (n=73).

Type of infection	No.	%
Candidiasis	55	78
Bacterial Vaginosis	18	25
Trichomonas	12	17
Gonorrhoea	2	3
Syphilis	2	3
Chlamydia	0	0

Diagnostic Criteria

All women were assessed according to both sets of diagnostic criteria i.e., clinical and laboratory (Table) adapted from the work of Amsel et a120, Eschenbach et al21 and Spliegal et al.22

Data Analysis

Focus group discussions were transcribed and coded. Later the themes were identified by analyzing the coded information. The analysis of qualitative data was done manually. The data collected through structured interviews, review of medical records and laboratory investigations was entered into EPI-Info version 6.0. The data was analyzed as frequency distribution of selected variables.

Results

Focus Group Discussion

The mean age of focus group participants was 26 years. Local terms used to describe vaginal discharge were Setho Pani, Haritho Pani, Khola fancho, Dhatu Rog, Harm Palli and Setho Pani jani. Vaginal discharge was identified as a disease which is common but distinct from STDs. Participants emphasized that women clearly understand the difference between normal and abnormal vaginal secretions. Women consider the discharge as abnormal if it continues for more than 2-3 months, large in amount, contain pus or blood, has foul smell and or associated with systemic symptoms.

Abnormal vaginal discharge was believed to be caused by weakness of the body in general and genital organs in particular. Women believed that it is transmitted by direct contact with infected articles e.g. clothes, food and furniture, etc. Any woman could have this problem irrespective of her age, marital status and education.

Women expressed that a number of topical home remedies are used for the treatment of vaginal discharge

e.g. mustard, or coconut oil alone or in turmeric powder, burn ointments and eczema and antiseptic powders and crèmes. One of the group mentioned that a special food made up of flour, butter and dry fruits is used as a home remedy.

Participants also reported that vaginal discharge patients do not seek treatment unless it interferes with daily routine work, the reason being shame and fear. Women believed that approaching the health institution is tantamount to publicizing that they have a sexual illness. Women reported that health providers in biomedical institutions are not very friendly and there is a lack of privacy. Women believed that vaginal discharge and STD patients prefer traditional healers or pharmacist as they are more welcoming and polite, and observe confidentiality and privacy. If this treatment failed then only did patients approach the qualified biomedical system.

Women clearly distinguished between vaginal discharge and sexually transmitted diseases. Vaginal discharge is considered as a disease which though shameful, yet socially acceptable in contrast STD is regarded as a substantial social stigma. The characteristics of STDs are described as heavy vaginal discharge associated with genital ulcer or vesicle. Participants reported that women are the primary sufferer and contact the disease through multiple sexual partners. These women later transmit infection to their husbands. Women consistently reported that STDs can only be transmitted if women have sexual relationship with multiple partners but not through her husband even if he had sexual contacts with other women. Women reported that a woman with STD has to live in social isolation. Because of fear of transmission of infection to others, women having STD are not allowed to get treatment from local traditional health providers.

Quantitative interviews

Out of 333 newly registered gynecology outpatients at Thapatali Maternity Hospital, Katmandu, Nepal, between May 5 and June 10, 1997, 54% reported vaginal discharge. Among these women with vaginal discharge, 40% went to the study physician while the remaining 108 followed the routine outpatient procedure and went to the hospital doctors. The study physician performed gynecological examination and ordered laboratory investigations for all these (n=73) patients. The research assistant interviewed 70 of these patients while three did not come back for the interview.

Among the 70 women interviewed 58 (80%) had vaginal discharge for more than one month duration. The majority (92%) of women reported associated symptoms. The most common associated symptom was lower abdominal pain (83%), followed by dysmenorrhea (60%), irregular menstruation (53%), dysuria (50%) and dyspareunia (29%). More than half (51%) of the women believed that vaginal discharge was not a normal condition. The most common characteristics of abnormal discharge mentioned were increase in amount (67%), itching (55%), change in color (53%) and foul smell (52%). The most commonly reported cause of vaginal discharge was weakness (77%) which was also identified as one of the sequalae of vaginal discharge (75%). The other consequences mentioned were lower abdominal pain (67%) and backache (64%).

All women believed that they should seek advice from a family member. In the current episode, majority of patients (83%) took advice and consulted their husbands (80%). All those who did not take advice (20%) mentioned that shame was the main reason. The majority of women came to the hospital either with their husband (45%) or friend (36%). Most of the women (83%) knew that patients should approach hospital as their first choice. However, most (90%) of these patients in the current episode, had been to two or more health providers before they finally reached the hospital. The first place of contact with health system was the pharmacy by urban women and traditional healers by rural women. Three main criteria used by women for the selection of health provider or institutions were reputation of the provider (60%), distance of the health facility (30%) and the cost of treatment (10%).

Diagnostic findings in vaginal discharge cases

The gynecological history suggested presence of symptoms in all cases (n=70). Physical examination revealed abnormal clinical signs in 66 (91%) patients while in four patients examination was normal. Among these 66 patients with abnormal clinical signs, the laboratory tests confirmed reproductive tract infection and/ or STD in 64 while in the remaining two, no etiology was identified. Of those four patients who had normal internal examination findings, laboratory test identified an etiological agent in two patients. The most common clinical signs were vaginal discharge (91%), vaginal hyperemia (61%) and cervical excitation (40%).

Laboratory results confirmed that 91% (66) of patients had reproductive tract infection. Out of these 66 patients 15 (23%) had an STD. Most of the patients (72%) had a single etiology. Candida was the most common infection followed by Bacterial Vaginosis (Table 2).

Discussion

Vaginal discharge and STDs are considered shameful and sharing the symptom even with health providers is uncomfortable. Hence, treatment is not sought until the symptoms severely affect the quality of these women's lives. This view was supported by quantitative interviews as most of the patients had vaginal discharge for more than one month. An STD/HIV project working in Nepal has also reported that most of the symptomatic STD patients had symptoms for more than three months.14

Furthermore, women believed that traditional healers or pharmacist are preferred for vaginal discharge and STDs, as these providers are more approachable and observe confidentiality.

Out of seventy women who presented with vaginal discharge 91% suffered from either Reproductive Tract Infection or an STD. STD in women was identified as a social taboo. Therefore women with these infections try to hide their symptoms as long as possible even from health providers. In this social context vaginal discharge can be used as a risk marker for early identification of STDs and HIV by primary health workers so that these patients can be referred to secondary level for further work up. This may reduce gynecological morbidity and can also be a cost effective intervention for HIV prevention. A randomized clinical trial conducted in Tanzania has demonstrated that improved treatment of STDs has resulted in reduction of the incidence of the HIV infection.23

In the present study, symptoms were suggestive of infection in all patients. The clinical examination was positive in 91% cases, but it was inconclusive for the type of infection. Laboratory investigations were the only means to confirm etiology. In 72% of patients a single etiological agent was identified. The three most common infections were Moniliasis (55), Bacterial Vaginosis (l8) and Trichomoniasis (l2). These three reproductive tract infections are found to be the commonest in other studies also.13 These infections can easily be diagnosed by microscopic examination of simple wet preparation of vaginal secretion and Gram stain. Once etiology is confirmed, specific drugs can be prescribed for each of these infections. On the other hand if syndromic approach is used, then these women who suffer either from Moniliasis, Trichomoniasis or Bacterial Vaginosis would also have received drugs against all six common STDs i.e., Trichomonads Vaginalis, Chlamydia Trachomatis, Gonorrhea, Bacterial Vaginosis and Moniliasis. This clearly indicates over treatment which may result in non-compliance and ultimately drug resistance. Additionally being treated for all six potential organisms would markedly increase drug costs in a setting where essential drugs are in short supply.

Women believed that they are the primary victim and the main source of transmission for STDs. The role of males in STD transmission is considered insignificant. As a result of these misconceptions women are blamed to be mainly responsible for STD transmission. Since South-East Asian culture does not allow women to use their right for safe sexual practices, women without multiple partners get STDs from their husbands but do not report and remain neglected and untreated. This results in a continuous increase in the incidence of STDs in South-East Asia.8 Hence, for prevention and control of STDs, it is imperative that women understand that husband could be the source of STDs, if he has multiple sexual partners. Moreover, awareness need to be created among both genders about the increasing number of STD cases, the sources and routes of transmission and the importance of safe sex practice.

In the current study and also in Africa, STD patients preferred to go to the non-formal health system.10,29 Therefore there is a need to nurture constructive relationship with front line health providers e.g. pharmacists and traditional healers. In addition qualified biomedical facilities should also develop a more supportive and humane environment for communities.These public institutions should be remodeled as a place where patients can comfortably communicate their sufferings. If the formal health systems become sensitive to the needs of the communities in relation to STDs and RTIs then patients may quickly and directly seek care from these institutions.

The major limitation of this study was that the subjects were selected from the hospital and may be non-representative of the general population.These women might be different from others in respect to the disease severity and or health seeking behavior. However, these women were from the lower socio-economic strata and hence represent the majority of the population. Therefore their viewpoint may help us in understanding the socio-cultural context and its influence on the health seeking behavior in relation to vaginal discharge and sexually transmitted diseases. The study has also suggested that vaginal discharge can be used as a risk marker for identification of STD cases. Although, there is a possibility that the accurate estimation of the predictive value of this risk factor might have been affected by the likelihood that mostly those women had landed at the hospital who had STDs. However, in the South East Asian cultural milieu it is worthwhile to utilize this risk marker for identification, appropriate management and control of STDs.

The most striking finding in this study is that STDs are not well understood by people and misconceptions pertaining to the etiology, transmission and appropriate management of vaginal discharge and STDs exist at the level of potential sufferers. Culture specific health education messages and strategies need to be designed to meet the local information needs. Another essential conclusion is that the quality of health care in terms of accuracy of diagnosis and treatment of vaginal discharge is essential for decreasing the incidence of STDs. The study also highlights that institutional environment in terms of client/patient respect, privacy and confidentiality, plays important role in modifying health seeking behavior of the communities. The programme planners and managers specifically involved in the control of sexually transmitted diseases should design interventions sensitive to clients'

perceptions and practices.

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Abstract

Objective: To understand women's perceptions and health seeking behavior and the association between vaginal discharge, clinical signs and laboratory findings as a presentation of sexually transmitted diseases (STD).

Methods: We conducted five focus group discussions with women attending the outpatient department in a large public hospital in Katmandu, Nepal, during May-June 1997. We also interviewed seventy women presenting with vaginal discharge to the same hospital, through structured questionnaire. Women presenting with discharge were also examined and investigated for six common sexually transmitted diseases and reproductive tract infections.

Results: In the focus groups vaginal discharge was identified as a common disease distinct from STDs, for which women can seek treatment. STDs were considered as social diseases transmitted to women through multiple sexual partners and not from husband. Patients with vaginal discharge preferred traditional healers and pharmacist. Clinical signs were inconclusive for type of infection. Simple laboratory tests identified etiologic agent in 64 (91%) patients and the three commonest infections were Moniliasis (78%), Bacterial Vaginosis (25%) and Trichomoniasis (17%).

Conclusion: Vaginal discharge may be used as a risk marker for identification of STDs by Primary Health Workers. Low cost investigations should be made available at the secondary care level for identification of most common Reproductive Tract Infections. Communication campaigns should target the misconceptions that exist in the communities local context related to the prevention, treatment and control of vaginal discharge and STDs (JPMA 54:620;2004).