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STUDY OF VULVOVAGINAL DISEASES EXCLUDING LEUCORRHOEA

Dermatology

KEYWORDS: STD, Non STD

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INTRODUCTION

Vulvovaginal diseases is the term given to various conditions affecting the vulva and vagina. The susceptibility and outcome of women to these diseases is often attributed to the changes in the anatomy, physiology, and cellular morphology of the genital tract that begins at puberty, and continues through the monthly menstrual cycles, pregnancy and also follows menopause. The role of hormones cannot be ignored as estrogen is responsible for the thicker glycogen laden stratified squamous epithelium which lines the vagina, providing a conduicive environment to the growth of pathogens. Most vulvovaginal diseases manifest often with discharge per vagina, itching of the genitals, burning sensation often aggravated during micturition, pain which is exacerbated during sexual intercourse, abnormal bleeding per vagina, and visible lesions over the vulva or vagina. The symptoms the patients present with often give a clue to the clinical diagnosis. White discharge from the vagina, to an extent causing discomfort to the patient, is often a presenting complaint. However it is important to differentiate a pathological white discharge, also referred to as leucorrhea, from a physiological discharge which is not abnormal during menstruation, ovulation, and pregnancy. It is also important to keep in mind the entire spectrum of vulvovaginal diseases, which may or may not include leucorrhea in their manifestations, so as to prevent misdiagnosis, over treating of leucorrhea, under treating of other infectious conditions which may have significant morbidity, and overlooking of potential malignant lesions.

Vulvovaginal diseases cover a wide range of conditions such as infectious diseases- commonly bacterial infections, trichomoniasis, and yeast infections, sexually transmitted diseases, viral infections such as human papilloma virus, genital warts, genital herpes; dermatological conditions manifesting in the genitalia such as lichen planus, lichen sclerosis, lichen simplex chronicus, autoimmune diseases; non infectious inflammatory conditions of the genitalia such as vulvovaginitis, vulvodynia, vulvar vestibulitis (vestibulodynia), desquamative inflammatory vaginitis, vulvovaginal atrophy endometriosis; vulval cancer and vaginal cancer.

The consequences of these diseases , if improperly managed, can manifest in various forms and cause long term changes and significant morbidity that may result in infertility, ectopic pregnancy and recurrent abortions. They can adversely affect the outcome of pregnancy and increase the chances of spontaneous abortions, chorioamnionitis, preterm labour, premature rupture of membranes, still births and post partum infections. Mother to child transmission either in utero, intra partum or post partum can occur leading to infections or developmental abnormalities in the baby. Undetetected precancerous or cancerous lesions can metastasise and present in a more grave situation posing life threatening complications. The downside however is, that in current times, these diseases commonly are inadequately diagnosed and treated. In recent era there is a dire need to differentiate STI and non STI group of vulvovaginal dermatoses as there is a changing trend from bacterial to viral infections. Also with advances in the field of medicine with newer diagnostic and therapeutic armamentarium, early detection of premalignant conditions is possible. Vulval clinics have been an important step forward in the diagnosis and management of women with vulval problems. These clinics should ideally be multidisciplinary with input from dermatology, gynecology, pathology and genitourinary medicine with valuable inputs from pediatricians, plastic surgeons, psychiatrists and psychologists. The development of such clinics is not only important for patient care but also for the valuable interdisciplinary education of the doctors involved.

The importance of a thorough history taking, meticulous clinical evaluation and judicious use of investigations cannot be stressed upon enough. Application of ones knowledge on the morphology and recognition of the normal anatomy when treating vulvovaginal disorders is a must in order to assess the pathology, identify the etiology, correct barrier function, limit inflammation, and address cutaneous itching and pain is of utmost importance. A holistic approach to an individual presenting with vulvovaginal disease is essential in order to improve the quality of life of the patient.

The following study has been conducted to study the vulvovaginal dermatoses and compare STI and Non-STI in relation to age, religion, and marital status and study the symptomatology and common site of dermatoses and to study the HIV status.

MATERIALS AND METHOD-

This is a descriptive study spanning a period of 23 months from July 2009 to May 2011. The study was carried out at the Department of Dermatology, Venereology & Leprology, Smt. N. H. L. Municipal Medical College, Ahmedabad, Gujarat. All female patients irrespective of their age and pregnancy status who presented in the dermatology and STI OPD with genital complaints were screened for venereal and non-venereal dermatoses. All those females with genital lesions on examination were included.

A detailed history including demographic data, chief complaints related to genital area, skin lesions, onset, pregnancy status, menstrual status, and associated medical or skin disorders was recorded. Enquiry was made with regard to history of sexual exposure in case of venereal dermatoses.

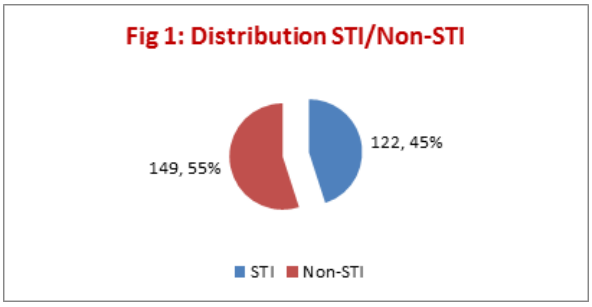
The external genitalia were examined and findings were noted. A detailed physical examination was made to see any associated lesions elsewhere in the body with per vaginal and per speculum examination done. The patients were then subjected to the following investigations such as RBS to check glycaemic status, 10% KOH mount to observe for fungal etilogy, screening for HIV and VDRL, and Biopsy of the necessary lesions were done whenever needed, with patient's consent, to confirm the diagnosis.

Chi-square (χ^2) test and Student-t test were used to compare variables and tests were considered significant when P-Value < 0.05.

RESULT AND DISCUSSION

Out of total 271 patients, 122 (45%) had STI and rest 149 (55%) were of non STI conditions (Figure 1, 2). Hence we observed that patients of Non STI dermatoses may be overtreated by syndromic approach.

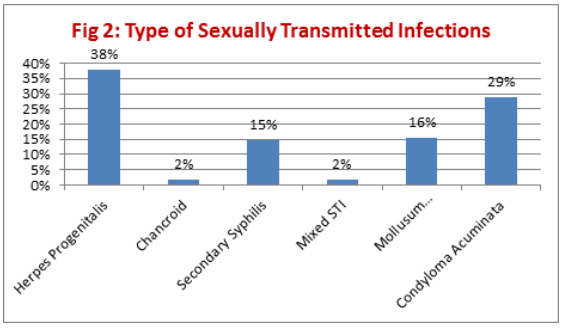
Herpes progenitalis was the most common STI (38%) we observed , followed by condyloma acuminata (29%), molluscum contagiosum (16%), secondary syphilis (15%) and chancroid (2%) . These findings were similar to the findings by Vora et al. The persistent and recurrent nature of viral infections is responsible for their increasing trend in the current STI scenario.



Out of 271 patients, 67 (23.42%) were in the inflammatory group, 57 (21.03%) in infective group, 4 (1.47%) in blistering group, 5 (1.84%) in malignant group, 3 (1.10%) in pigmentary group and 122 in the STI group.

According to Thapa et al 59 (49.2%) patients were in the inflammatory group, 28 patients(23.3%) in non venereal infective and infestations group, 19 Patients (15.8%) in the pigmentary group, 8 patients (6.7%) having benign tumours and 6 patients having squamous cell carcinoma.

Out of 149 non STI, majority of the patients had candidiasis (33, 12.1%), followed by lichen simplex chronicus (27, 9.96%), lichen sclerosus atrophicus(17, 5.9%), furunculosis (16, 5.5%) and lichen planus (7, 2.6%). This is in contrast to the study by Thapa et al where the most common non venereal dermatoses they encountered was lichen sclerosus which constituted 26 (21.7%) of the cases followed by 19 cases (15.8%) of vitiligo, 16 (11.3%) cases of lichen simplex chronicus and 11 cases (9.2%) cases of vulval candidiasis.



It was observed that the most common age group affected were in the reproductive age group of 21-30 years (i.e. 125pts, 46%). These findings were consistent with that of a study carried out by Goel et al. The youngest patient was one and half years old and the oldest patient was 74 years old. STI were also significantly higher in this reproductive age group (73pts, 60%) (p value < 0.0001). Majority of the patients were housewives (217, 80%) followed by 27 patients (10%) who were working class followed by students (25, 9%). The remaining 2 were children.

202 (75%) were inhabitants of rural areas and 69 (25%) were from urban areas. The incidence of STI were significantly higher in Urban areas (56, 81%) as compared to that of Rural areas (66, 33%) (p value < 0.0001).

A majority of patients were married (231pts, 85%) and the remaining (40, 15%) unmarried. Surprisingly the incidence of STI was significantly higher in unmarried patients (28, 70%) as compared to that of married patients (94, 41%) (p value < 0.0001). This is in contrast to the study carried out by Vora et al where it was found that the incidence of STI was more in married men as compared to that of unmarried men.

179 (66%) patients were of Hindu origin and 92 patients (34%) were of Muslim origin. It was found that the incidence of STI was not significantly higher in patients of Muslim origin (50% vs 41%) (p value = 0.09) (Table 1).

Table 1: Comparison STI vs Non-STI

Factor		STI (n = 122)		Non-STI (n = 149)		P-value (χ2)
Age	21- 30 years (125, 46%)	No.	Percentage	No.	Percentage	
		73	60%	52	35%	< 0.0001***
Urban/Rural	Rural (202, 75%)	66	33%	136	67%	< 0.0001***
	Urban (69, 25%)	56	81%	13	19%	
Religion	Hindu (179, 66%)	74	41%	105	59%	0.09
	Muslim (92, 34%)	48	52%	44	48%	
Marital Status	Married (231, 85%)	94	41%	137	59%	< 0.0001***
	Unmarried (40,15%)	28	70%	12	30%	

Out of the 271 patients, 199 (73%) had complaints of symptoms for less than 30 days.

215 (79%) patients gave a menstrual history of out which 187 (87%) patients gave history of regular menstrual cycles and 28 (13%) complained of irregular menstrual periods. 138 (51%) of the patients were multipara.

The most common symptoms encountered in patients at the time of their presentation were itching (92, 34%) and pain in the genitals (82, 30%) followed by complaints of presence of a mass (78, 29%) , genital ulceration (27%) and burning sensation in the genital region (27%). Other complaints were dyspareunia, redness, exfoliation of skin, oozing, constipation, burning micturition, excoriations, erosion, and thickening of skin. There were some patients who presented with more than one complaint.

Among the STI group, ulceration and burning micturition was present in 100% of the patients with Herpes progenitalis and Burning sensation over the region in 78% patients. A total of 5 patients were diagnosed as squamous cell carcinoma.

Table 2: Factors Affecting Sexually Transmitted Infections

		HP (46)	Chancroid (2)	Syphilis (2)	Mixed STI (18)	MC (19)	WARTS (35)	Total
Age	21- 30 years (125, 46%)	25 (34%)	2 (3%)	1 (1%)	10 (14%)	10 (14%)	25 (34%)	73
Urban Rural	Rural (202, 75%)	26 (39%)	2 (3%)	2 (3%)	7 (11%)	12 (18%)	17 (26%)	66
	Urban (69, 25%)	20 (36%)	0 (0%)	0 (0%)	11 (20%)	7 (13%)	18 (32%)	56
Religion	Hindu (179, 66%)	26 (35%)	2 (3%)	1 (1%)	11 (15%)	12 (16%)	22 (30%)	74
	Muslim (92, 34%)	20 (42%)	0 (0%)	1 (2%)	7 (15%)	7 (15%)	13 (27%)	48
Marital Status	Married (231, 85%)	37 (39%)	2 (2%)	2 (2%)	16 (17%)	13 (14%)	24 (26%)	94
	Unmarried (40, 15%)	9 (32%)	0 (0%)	0 (0%)	2 (7%)	6 (21%)	11 (39%)	28

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It was observed that 66 of the 122 patients of STI tested positive for HIV. This suggests that HIV and STI are core transmitters of each other. This result is in contrast to the study carried out by Vora et al where HIV seropositivity among STI patients was a mere 2.48%.

Table 3: HIV status & Barrier contraception In Sexually Transmitted Infections

		HP (46)	Chancroid (2)	Syphilis (2)	Mixed STI (18)	MC (19)	WARTS (35)	Total
HIV	**Positive**	7 (15%)	0 (0%)	2 (100%)	4 (18%)	12 (18%)	17 (26%)	66
	Negative	39 (85%)	2 (100%)	0 (0%)	14 (82%)	7 (13%)	18 (32%)	56
Barrier Contraception	**Yes**	10 (22%)	0 (0%)	1 (50%)	3 (17%)	4 (21%)	3 (9%)	21
	No	25 (54%)	2 (100%)	1 (50%)	9 (50%)	10 (53%)	32 (91%)	79
	Not known	11 (24%)	0 (0%)	0 (0%)	6 (33%)	5 (26%)	0 (0%)	22

The most common STI that was observed in HIV positive patients was warts. This was compared to a study published in the same journal by Kore et al where the most common mucocutaneous manifestation encountered was candidiasis. It was also observed that there was lower rate of usage of barrier contraceptives in STI patients.

CONCLUSION

There is a changing trend in the presentation of vulvovaginal diseases with a shift in the spectrum from genital bacterial infections to a rise in the incidence of genital viral infections. This has been reflected by the number of SCC encountered in our study. This goes to highlight the importance of a thorough approach to vulvovaginal diseases, and application of proper knowledge of the same, so as to avoid misdiagnosis and mismanagement of patients as well as to detect seemingly benign or premalignant lesions before they present at an advanced stage with more dire consequences for the patient. In order to do this, women must be encouraged at an early stage, from the time they become sexually active, to undergo regular health screening and medical check ups. Health education must be promoted in both urban and rural areas, and regular community sessions held to spread awareness about the importance of reproductive health, and to alleviate the women of any anxieties they have with respect to it. Both men and women should actively participate in these health camps so as to improve the level of understanding of both sexes, dispel all wrong notions and beliefs, prevent unsafe and unhealthy practices and thereby improve the health status of the society at large.

An important aspect to note is the increase in the incidence of STI among the unmarried population. In a country such as India, where cultural and social norms are such that there is still a social stigma attached to premarital relationships which is even considered taboo in many societies, there is an increased need for sexual education for the unmarried population, particularly school and college going age group, thereby increasing the level of awareness. All educational institutions and health facilities must take note of the current trend in the country and implement the needful so as to benefit not only the individuals, but the community at large. It is also important to spread awareness about illegal activities such as prostitution, with the increase in the number of commercial sex workers who contribute to the increase in the incidence of STIs. Since it has been observed that STIs are more common in the unmarried group, it is a must to carry out thorough counselling of patients, trace their contacts and ensure prompt management of partners. Though this is no doubt a difficult task in a society like ours where cultural norms are a hindrance to contact tracing and treatment, it is of utmost importance.

Since the weightage of Non STI is more there is therefore an important role of dermatologists in differentiating STI from Non STI dermatoses so as to ensure proper management, and negate the risk of overtreatment of STIs with syndromic approach.

There is also a dire need to spread awareness and bring about change in the attitude and behavior of the general population as such regarding the use of contraceptives especially barrier contraceptives which can be done by implementing afore mentioned health education camps and sessions in the community, educational institutions and health care facilities, thereby not only preventing and limiting the spread of sexually transmitted diseases, but also preventing unwanted pregnancies and illegal abortions.

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