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Original article:

A study of psychiatric co-morbidities in females with non pathological vaginal discharge to evaluate the concept of Dhat syndrome in females

[1]Dr Mahendra Jain, [2]Dr Sunil Kr. Moond, [3]Dr. Yogesh Dosodiya

[1]Senior Professor, department of psychiatry, JLN Medical College & attached hospitals, Ajmer
[2]Resident doctor, Department of Psychiatry, JLN Medical College & attached hospitals, Ajmer
[3]Senior Resident, Department of Psychiatry, JLN Medical College & attached hospitals, Ajmer
Corresponding author: Dr Mahendra Jain

Abstract:

Introduction: Gynecological diseases have a substantial impact on female reproductive ability and mental health. Vaginal discharge may contribute to arise of mental disorders like that of Dhat Syndrome in males. **Objective:** To assess psychiatric co-morbidities in females with non pathological vaginal discharge to evaluate the concept of Dhat syndrome in females.

Methodology: A hospital based cross-sectional observational descriptive study was carried out on 120 patients of non pathological vaginal discharge in the gynaecology OPD of a tertiary care hospital, Rajasthan. Socio-demographic data and psychiatric co-morbidities were assessed by applying Scale for Assessment of Female Dhat syndrome (SAFeD); Depression, Anxiety and Stress Scale (DASS 21).

Results: In the study it was found that out of all (80) non-pathological vaginal discharge patients, 12 (15%) were mild depressed, 15 (18.75%) were with mild anxiety and 8 (10%) were with moderate anxiety, 13 (16.25%) were with mild stress, 6 (7.54%) were with moderate stress and 2 (2.5%) were with severe stress. Depression, anxiety and stress were more common in the patients with high severity discharge.

Conclusion: The patients of non-pathological vaginal discharge attribute mental symptoms of depression, anxiety and stress. Identification of the same may help in managing this subgroup of patients seeking help from the gynecologists for their non-pathological vaginal discharge or from mental health professionals for their symptoms of common mental disorders and more research is required to develop culture specific treatment modalities for the same.

Keywords: Non-pathological vaginal discharge, psychiatric co-morbidities

INTRODUCTION:

Gynecological diseases have a substantial impact on female reproductive ability and mental health. Abnormal vaginal discharge is common in women in developing countries and it is about one-fourth of women.[1-3] Usually vaginal discharge is considered as an symptom of reproductive tract infections[4] and it is considered to be highly prevalent in the India.[5] However, some of the recent studies suggest that the prevalence of reproductive tract infections is relatively low in women presenting with vaginal discharge.[6-8] Many South Asian women who complain of vaginal discharge also report a variety of somatic symptoms such as dizziness, backache, and weakness.[12]

Authors who have evaluated women with common mental disorders have also considered leukorrhea as a somatic idiom of expression of depression in South Asia.[9-12] In some of these studies, patients attributed their symptom of vaginal discharge to stress and emotional factors, excess heat in the body, infection, consumption of hot and spicy foods, and effect of hot weather.[10-12] Almost similar reasons were advanced by some of the male patients with Dhat syndrome.[13,14] Dhat syndrome is a culture-bound syndrome seen commonly among young, unmarried males in South-East Asian region.[15,16] Occasional studies from other South Asian countries such as Sri Lanka and Pakistan have also noted problems related to loss of *dhatu* in subjects of either gender.[17,23] Recently, two cases akin to female Dhat syndrome were reported, and the authors attempted to present the operational criteria which could be used to identify these patients[24] In a recent study in India a positive correlation was found between duration, frequency and quantity of discharge with depression, anxiety and stress.[25] In this background of limited literature, the present study aimed to evaluate the concept of female Dhat syndrome in women who had the complaints of non-pathological vaginal discharge attending gyanecology OPD with complaints of somatic anxiety and depressive symptoms.

Aim and objective: To assess psychiatric co-morbidities in females with non pathological vaginal discharge to evaluate the concept of Dhat syndrome in females.

Methodology: After approval of the Institute Ethics Committee, a hospital based cross sectional observational descriptive study was carried out on 120 patients coming with the complaint of vaginal discharge in the gynaecology OPD of a tertiary care hospital- JLN medical college Ajmer, Rajasthan. Any female aged 18-50 years and willing to participate in study with diagnosis of non pathological vaginal discharge were included in this study. Any serious medical, surgical, co-morbid mental retardation, psychotic disorders (schizophrenia/ mania), neurological illness female were excluded in this study. After ensuring the vaginal discharge to be non-pathological 80 patients were included. Socio-demographic data and psychiatric co-morbidities were assessed by applying Scale for Assessment of Female Dhat syndrome (SAFeD); Depression, Anxiety and Stress Scale (DASS 21). **Scale for Assessment of Female Dhat syndrome (SAFeD)** is a modified version of Comprehensive Questionnaire for Assessment of Dhat Syndrome designed for assessment of male patients with Dhat syndrome. **Depression, Anxiety and Stress Scale (DASS)** - The DASS 21 is a 21 item self report questionnaire designed to measure the severity of a range of symptoms common to both Depression and Anxiety. Data were analyzed using statistical software IBM SPSS 24.

Results:

Table 1: Socio-demographic details (N=80)

S. No.	Variable		No.	%
1	Age (years)	<25	28	35
		26-35	34	42.5
		36-45	10	12.5
		>45	8	10
2	Marrital status	Married	71	88.75
		Unmarried	9	11.25
3	Education	Illiterate	32	40
		Primary completed	18	22.5
		Middle completed	10	12.5
		Secondary completed	11	13.75
		senior secondary completed	6	7.5
		Graduation completed	3	3.75
4	Occupation	Professional	5	6.25
		Semi-professional	7	8.75
		Clerical/shop/farmer	9	11.25
		Skilled	17	21.25
		Semi-skilled/Housewife	27	33.75
		Unskilled	7	8.75
		Unemployed	8	10
5	Locality	Rural	46	57.5
		Urban	34	42.5
6	Religion	Hindu	62	77.5
		Muslim	12	15
		Other	6	7.5

Table no. 1 shows that out of all non-pathological vaginal discharge patients, maximum patients were belonged to 26-35 years age group (34/80; 42.5%) and least to >45 years group (8/80; 10%). Maximum patients were married (71/80; 88.75%), illiterate (32/80; 40%), semiskilled worker or housewives (27/80; 33.75%), living in rural area (46/80; 57.5%) and of hindu religion (62/80; 77.5%).

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Table 2: Severity of discharge and depression

S. No.	Variables of discharge		Normal (N=68)	Mild depression (N=12)	P value
1	Duration of discharge (in years)	1-2	24	2	0.008
		3-4	30	6	
		5-6	9	5	
		>6	1	3	
2	Frequency of discharge	Once in a month	22	1	0.004
		Once in a week	33	7	
		>1 time in a week	8	5	
		≥1 in a day	1	3	
3	Quantity of discharge	Light wetness in vagina	21	1	<0.001
		Wet feeling outside vagina	34	5	
		Wetting of undergarments	7	6	
		Need to change under-garments due to wetness	2	4	

Table no. 2 shows distribution of patients according to severity of discharge and severity of depression. Severity of discharge was assessed in terms of duration, frequency and quantity of it. It was found that out of all (80) non-pathological vaginal discharge patients, 68 (85%) were normal and 12 (15%) were mild depressed. Moderate and severe depression was not found in the study. Depression was more common in the patients with high severity discharge. The difference of proportions between healthy and depressed patients was significant also in all three terms of severity of discharge (i.e. duration, frequency and quantity of discharge).

Table 3: Severity of discharge and anxiety

S. No.	Variables of discharge		Normal (N=57)	Mild anxiety (N=15)	Moderate anxiety (N=8)	P value
1	Duration of discharge (in years)	1-2	22	3	1	0.009
		3-4	30	4	2	
		5-6	7	5	2	
		>6	1	1	2	
2	Frequency of discharge	Once in a month	21	1	1	0.003
		Once in a week	32	6	2	
		>1 time in a week	6	5	2	
		≥1 in a day	1	1	2	
3	Quantity of discharge	Light wetness in vagina	20	1	1	0.004
		Wet feeling outside vagina	34	5	2	
		Wetting of undergarments	5	5	3	
		Need to change under-garments due to wetness	1	2	1	

Table no. 3 shows distribution of patients according to severity of discharge and severity of anxiety. It was found that out of all non-pathological vaginal discharge patients, 57 (71.25%) were normal and 15 (18.75%) were with mild anxiety and 8 (10%) were with moderate anxiety. There was no patient with severe anxiety. Anxiety was more common in the patients with high severity discharge. The difference of proportions between healthy and anxiety patients was also significant in all three terms of severity of discharge.

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Table 4: Severity of discharge and stress

S. No.	Variables of discharge		Normal	Mild stress	Moderate stress	Severe stress	P value
1	Duration of discharge	1-2	23	2	1	0	0.007
		3-4	29	5	2	0	
		5-6	6	5	2	1	
		>6	1	1	1	1	
2	Frequency of discharge	Once in a month	21	1	1	0	<0.001
		Once in a week	33	6	1	0	
		>1 time in a week	5	5	2	1	
		≥1 in a day	0	1	2	1	
3	Quantity of discharge	Light wetness in vagina	20	1	1	0	0.002
		Wet feeling outside vagina	32	6	1	0	
		Wetting of undergarments	6	4	2	1	
		Need to change under-garments due to wetness	1	2	2	1	

Table no. 4 shows distribution of patients according to severity of discharge and severity of stress. It was found that out of all non-pathological vaginal discharge patients, 59 (73.75%) were normal, 13 (16.25%) were with mild stress, 6 (7.54%) were with moderate stress and 2 (2.5%) were with severe stress. Stress was more common in the patients with high severity discharge. The difference of proportions between healthy and stressed patients was also significant in all three terms of severity of discharge.

Table 5: Correlation of discharge with depression, anxiety and stress

Vaginal Discharge	r and p value	Depression	Anxiety	Stress
Duration of discharge	r	0.384	0.376	0.403
	p	0.008	0.009	0.007
Frequency of discharge	r	0.481	0.501	0.523
	p	0.004	0.003	<0.001
Quantity of discharge	r	0.512	0.498	0.454
	p	<0.001	0.004	0.002

Table no. 5 shows correlation between vaginal discharge and psychiatric illnesses. There is positive correlation of duration, frequency and quantity of discharge with depression, anxiety and stress. As with increase in discharge severity, depression, anxiety and stress also increase.

Discussion:

The present study revealed that out of all non-pathological vaginal discharge patients, maximum patients were belonged to 26-35 years age group (34/80; 42.5%) and least to >45 years group (8/80; 10%). Maximum patients were married (71/80; 88.75%), illiterate (32/80; 40%), semiskilled worker or housewives (27/80; 33.75%), living in rural area (46/80; 57.5%) and of Hindu religion (62/80; 77.5%). These findings are similar to some other studies. In a study by Pradeep Agrawal et al[26], majority of the females included the study were in the age group of 26 to 45 years and of lower socio-economic status. Majority of females were married and housewives, of low educational level and living in joint family. A study by Sandeep Grover et al[27] study also shows that majority of the females of similar complaints were married (58.8%), housewives (88.5%), 53.8% were living in rural area.

In our study it was found that out of all (80) non-pathological vaginal discharge patients, 12 (15%) were mild depressed, 15 (18.75%) were with mild anxiety and 8 (10%) were with moderate anxiety, 13 (16.25%) were with mild stress, 6 (7.54%) were with moderate stress and 2 (2.5%) were with severe stress. Depression, anxiety and stress were more common in the patients with high severity discharge. These findings are in accordance with other studies. Sandeep Grover et al[27] study shows that majority of the patients (73.7%) had a moderate level of distress due to vaginal discharge. Khan N et al[28] study revealed that there was a high prevelance of common mental disorders in patients of vaginal discharge. Patel V et al[10,11] study also shows that vaginal discharge as a symptom in patients with common mental disorders. Trollope K[29] study shows that woman who complain of 'safed pani' (leukorrhea) often complain of vague somatic symptoms, anxiety and stress arise partially due to the problem itself and partially due to reoccurrence of the problem.

In the present study a positive correlation was found between duration, frequency and quantity of discharge with depression, anxiety and stress. As with increase in severity of discharge, depression, anxiety and stress also increase. These findings are in accordance of other studies. Snehal V T[25] study also found that when the correlation of duration, frequency and quantity of discharge was studied with depression, anxiety and stress in the females , it was found that there was a positive correlation between the variables. Dekker J H et al[30] study shows that duration of

gynaecological symptoms or vaginal discharge was the most important modifier of the course of the physical or psychiatric symptoms. The shorter this period, the more probable the disappearance of symptoms or it can be said that shorter the duration of discharge, lesser is the anxiety, depression and stress associated with it. Khan N et al[28] study also found that patients with longer duration of vaginal discharge were at increased risk of having a common mental disorder. Singh A J[2] study also reported that females were depressed, stressed and felt anxious as the duration of vaginal discharge increased.

Conclusion:

The patients of non-pathological vaginal discharge attribute mental symptoms of depression, anxiety and stress. This clinical picture is similar to that of Dhat syndrome in males. So, female Dhat syndrome also must be recognized as a culture-bound syndrome. Identification of the same may help in managing this subgroup of patients seeking help from the gynecologists for their nonpathological vaginal discharge or from mental health professionals for their symptoms of common mental disorders and more research is required to develop culture specific treatment modalities for the same.

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