CLINICO BACTERIOLOGICAL STUDY OF GARDNERELLA VAGINALIS

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SUMMARY

The presence of Gardnerella vaginalis infection was sought in 250 female patients attending Gynaecological O. P. D. of S. R. N. Hospital, M. L. N. Medical College, Allahabad. The overall prevalence of G. vaginalis was observed in 20.4% of Gynaecological cases. Ratio of prevalence of Trichomonas, Candida and G. vaginalis infection was in the ratio of 1.1 : 1 : 1.6. Majority of G. vaginalis infection was in the age group of 20-29 years and commonest presenting symptom was white discharge per vagina. Vaginitis was found to be 15.8% Culture is the most diagnostic index than 'Clue Cell'.

INTRODUCTION

Gardner and Dukes (1955) isolated G. vaginalis from urethra in 70-90 cases of infection in females. It was gaining importance as it was the most prevalent and contagious of all STDs, which were clinically manifested. Rapid diagnosis depended upon identification of 'Clue Cells' in wet smear preparation of vaginal fluid and optimum growth in culture plate. Only very few studies dealt with prevalence of G. vaginalis infection Gynaecologic population. The present study was carried out to find the prevalence of G. vaginalis infection in patients attending. Gynaecological O. P. D., S. R. N. Hospital Allahabad.

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MATERIAL AND METHODS

A sample size of 250 women was collected and the sampling design included only the non-pregnant women in the age group of 15-40 years attending the out patient Department of Obst. and Gynaecology, S. R. N. Hospital, Allahabad over a period of one year. All the cases were selected by Random sampling and every sixth patient was examined until 250 cases had been seen.

A detailed clinical history with special reference to vaginal discharge, pruritus vulvae, dyspareunia were noted. A detailed general examination and meticulous local genital examination was done aseptically without any use of lubricant. Wet mount preparation of vaginal discharge was examined under low power

microscope for 'Clue Cells' Culture was taken before vaginal examination, ahead of the speculum and were transported to laboratory and inocculated in Blood Agar plate and incubated at 37°C for 48 hours. The circular, convex, smooth dew drop colonies were observed. Presence of gram negative bacilli from these colonies confirmed the cultural findings.

OBSERVATION

The prevalence rate of G. vaginalis in Gynaecological non-pregnant group was 51/250(20.4%) (Table I). Maximum cases belonged to 20-29 years, which is the most sexually active age group in our country (Table II). In our series all cases were symptomatic vaginal discharge and pruritus Vulvae (21.56%) were the common symptoms but it was less frequently associated with dyspareunia and dysuria. The urine in all the cases was sterile (Table III). 94.11% of cases presented with the sign of vaginal discharge, which was thin, white, mild to moderate in amount, without any offensive odour. Vaginitis was present only in 15.68% of cases (Table IV).

DISCUSSION

In 1954, Gardner and Dukes published the first report dealing with identification of G. vaginalis. In the present study, the prevalence of G. vaginalis (20.4%) was higher than trichomonas (36/250) and candida (32.250). However, the incidence of isolation in Gynaecologic population with or without vaginitis was found to be 13.2% by Chowdhury et al (1985). In the present study 71% of cases were in the age group of 20-39 years. Kaur

Table II

Distribution of G. vaginalis positive cases according to age

Age in years	Positive for G. vaginalis	
	No.	%
15 - 19	9	17.65
20 - 24	12	23.53
25 - 29	15	29.42
30 - 34	6	11.76
35 - 39	3	5.88
40 or more	6	11.76

Table III

Distribution of G. vaginalis positive cases according to symptoms

	No. of cases	Percent
Vaginal discharge	44	86.27
Pruritus vulvae	11	21.56
Dyspareunia	9	17.65
Dysuria	6	11.76

Table I

Prevalence of vaginal infection in 250 patients

Total No. of cases	Positive for T. vaginalis		Positive for candida		Positive for G. vaginalis	
	No.	%	No.	%	No.	%
250	36	14.4	32	12.8	51	20.4

Table IV

Frequency of signs in G. vaginalis positive cases

	No. of cases	Percentage
Vaginal discharge	48	94.11
Vaginitis (mild)	8	15.68
Chronic Cervicitis	5	9.80
Erosion	4	7.84

(1979) noted that the infection was more common in Child bearing age group. G. vaginalis has been isolated from asymptomatic patients as well as from patients with vaginitis (McCormack et al, 1977). In our series all cases were symptomatic, vaginal discharge was variable. Often the vagina was normal or slightly inflamed (15.68%). Gardner and Dukes (1959) isolated G. vaginalis in 29% of cases and 42% had vaginitis where as Dunkelbeg (1965) reported 34% had vaginitis with this infection. Although 'Clue Cells' in wet smear were diagnostic, Gray and Barnes (1965) proved that there might be presence of false clue cells due to presence of other organisms. So diagnostic accuracy was not possible without culture.

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