

## *Vulvovaginitis and vaginal discharge in general practice*

W. SHANNON, M.R.C.G.P., D.C.H., D.Obst.R.C.O.G.  
General practitioner, Cork, Ireland

**SUMMARY.** Ninety-four patients with vulvovaginitis and vaginal discharge were assessed clinically and had vaginal swabs taken in an effort to establish a definite diagnosis. A high incidence of fungous infection was found while there was a surprisingly low incidence of Trichomonal vaginitis. These findings vary markedly from recent surveys in other countries (Delaha *et al.* (1964); Gray and Barnes, 1965; Desai *et al.*, 1966).

### Introduction

Vulvovaginitis and vaginal discharge are common complaints in general practice. The clinical impression which existed locally before undertaking this survey had been that *Candida albicans* and *Trichomonas vaginalis* were the causative organisms in the majority of our patients.

The possible role of mixed bacterial infection and the place of cervical erosion in the aetiology of these clinical symptoms seemed less clear.

### Aims

A survey was done to find out the common causes of vulvovaginitis and vaginal discharge in a sample of patients seen in general practice in the Cork area.

### Method

Seven general practitioners took part in the survey, four from rural practices and three from urban. The survey consisted of 94 consecutive patients with symptoms of vulvovaginitis and/or vaginal discharge, there being no selection or exclusion by social class, age, or marital status. All data were entered on a standard clinical record sheet (figure 1). In addition to the clinical examination a high vaginal swab was taken and placed immediately in a Trichomonas transport medium—Oxoid T.M.—which was posted to the Bon Secours Laboratory, Cork. Each swab was examined in the laboratory for the presence of yeast and bacterial organisms and a culture was carried out for *Trichomonas vaginalis*.

### Results

The age range was from 19 to 56 years. The largest number 46, were in the age-group 25 to 34, and 71 of them were married. Figure 1 shows that we recorded any possible precipitating factors which might be thought relevant in each case.

In this survey no patient was diabetic and none was on steroid therapy. It was agreed that pregnancy, antibiotics, and the contraceptive pill are common precipitating factors in vaginal moniliasis and table 1 indicates the possible role of these three agents:

TABLE 1  
EXACERBATING FACTORS FOR VAGINAL INFECTION

<i>Total patients examined</i>	<i>Number</i>	<i>Per cent</i>
Pregnancy	26	28
Recent antibiotic therapy	9	9
Combined oestrogen-progestogen pill	7	7
Absence of above precipitating factors	52	55

### *Clinical features*

Examination of our clinical records showed that vulvovaginitis, i.e. symptoms of vulval or vaginal itch and soreness, was a problem in 59 patients (62 per cent), while vaginal discharge was the presenting feature in 44 patients (46 per cent). Cervical erosion was described in only 19 patients, i.e. 20 per cent and whereas skill in visualising the cervix may have been doubtful, sometimes we hope that this source of error was overcome as the survey progressed. In the cases of

<b>VULVOVAGINITIS/VAGINAL DISCHARGE</b>		Doctor .....	
		Date .....	
1. Patient No..... Age..... yrs.		Married/single	
Social class.....		Occupation.....	
2. SYMPTOMS ( <i>Tick if complaint present; underline the main complaint</i> )			
VAGINAL DISCHARGE		Duration.....	
ITCH VAGINAL VULVAL PERI-ANAL		Duration.....	
SORENESS VAGINAL VULVAL PERI-ANAL		Duration.....	
URINARY FREQUENCY PAIN		Duration.....	
OTHER (specify)		Duration.....	
3. POSSIBLE PRECIPITATING FACTORS ( <i>include interval before onset of symptoms</i> )			
Antibiotics .....			
(specify)			
(state route administered) .....			
Oestrogens .....			
Cortisone .....			
Diabetes      Pregnancy ( <i>duration at onset of symptoms</i> ) .....		wk	
Operation .....			
Other .....			
4. FINDINGS      Mental state      Anxiety      Depression      Other			
Rash elsewhere .....			
Angular stomatitis			Paronychia
Redness of labia majora			Redness of labia minora/ introitus
Peri-anal redness			Excoriation
Vaginal discharge	absent/scanty/moderate/copius		thick/thin
	White/yellow/brown/red		
Vaginal walls	normal/inflamed		
Cervix	healthy/erosion/inflamed but intact epithelium		
Other .....			
5. PREGNANT	Duration in weeks at examination .....		wk
6. DIAGNOSIS	Provisional .....		
	Final .....		
	Based on findings/response to therapy/laboratory examination/other		
7. TREATMENT .....			
8. COMMENTS ( <i>include response to treatment; state if referred</i> )			

Figure 1

candidiasis there were only five patients who had an associated fungal infection elsewhere, i.e. paronychia or angular stomatitis. Redness of the labia minora or majora was recorded in almost all 94 cases and such descriptive terms appear unhelpful in making a specific diagnosis clinically. While itching was the most common symptom and gross inflammation of the vaginal walls the most consistent sign in the florid cases of candidiasis, it was not reliable to predict the laboratory report by using any grouping of symptoms and signs.

This clinical-cum-laboratory study indicates:

(1) The need for greater uniformity when describing clinical features of the female genital tract—our degree of accuracy varied from 60 to 86 per cent.

(2) There is also need to clarify the significance of a small rather than large number of yeasts in the microscopic preparation.

Table 2 summarises the laboratory findings in 94 swabs:

TABLE 2  
LABORATORY FINDINGS

<i>Predominant aetiological agent</i>	<i>Number</i>	<i>Per cent</i>
<i>Monilia</i>	71	76
Mixed bacterial growth	12	13
<i>Trichomonas vaginalis</i>	2	2
No organisms isolated	9	9

It will be seen that no growth was obtained in nine per cent of swabs, while the contrasting figures for *Monilia* and *Trichomonas* might be explained by the high parity of Irish women and the relatively low incidence of promiscuity and venereal disease in a stable married community.

#### Discussion

The literature suggests that this study, like many other similar ones, shows the regional variability in the aetiological agents found in vulvovaginitis and vaginal discharge. We had expected a higher incidence of *Trichomonas vaginalis* as found in the studies of Desai *et al.* (1966) in India, Dennerstein (1970) in Australia, and Gray and Barnes (1965) in the United States of America. The latter state "the most important etiologic agent in clinical vaginitis in adult women is *Trichomonas vaginalis*".

The clinical entity of *Haemophilus vaginalis* or *Corynebacterium vaginalis*, known as Gardner-Dukes Disease was originally described in detail by these authors in 1955. This clinical syndrome is described as a non-specific vaginitis with varying amounts of greyish-white turbid discharge. Other American authors, Gray and Barnes (1965) state that "this organism, *Haemophilus vaginalis*, may be present in the vagina and may cause minimal or no symptoms and may appear and disappear spontaneously".

No case of *Haemophilus vaginalis* was isolated in our series. Furthermore Peeters *et al.* (1972) in an interesting study of *Candida albicans* vaginitis, found *Candida albicans* in 77.6 per cent of 58 patients, having excluded patients with *Trichomonas vaginalis* and those in their first four months of pregnancy. No case of *Haemophilus vaginalis* was isolated in that survey and these Belgian authors conclude that "perhaps *Haemophilus vaginalis* occurs more frequently in North American practices than in our practice".

This survey emphasises the unreliability of clinical features in making a diagnosis in this common gynaecological complaint. Our degree of inaccuracy was 37 per cent overall which compares with 40 per cent as described by Burgess *et al.* (1970). It is concluded that laboratory assistance is essential if irrational therapy is to be avoided.

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