

## INTRODUCTION

Vaginitis is one of the commonest diseases that affects the female genital tract at different ages. Gardner et al. (1957), reported an incidence of vaginitis in 23.2% of private clinic white patients and in 69.3% of general clinic negro patients. Eschenbach (1983), stated that approximately 7% of annual private visits to each Obstetrician/Gynaecologist were due to vaginitis.

Fleury (1981), demonstrated that most cases of vaginitis can be placed in three categories; Non-specific vaginitis which is caused by the organism called *Haemophilus vaginalis* (*Corynebacterium vaginale-Gardnerella vaginalis*) which accounts for 33% of all cases of vaginitis, Monilial vaginitis which accounts for 20.5% and Trichomonal vaginitis which accounts for 9.8% of all cases of vaginitis. Eschenbach (1983), found that the incidence of these types of vaginitis was as follow: 40-50% for Nonspecific vaginitis; 20-<sup>and</sup> 30% for both Monilial and Trichomonal vaginitis. <sup>respectively</sup>

According to Fleury (1981), other causes of vaginitis and vaginal discharge include cervicitis, where patients have a mucopurulent discharge and occasionally intermenstrual or postcoital spotting

and pelvic pain in severe cases. Pathogens commonly involved in cervicitis include:- *Neisseria gonorrhoeae*, *Chlamydia trachomatis*, *Trichomonas vaginalis* and Herpes Simplex virus. The next most common cause of vaginal discharge is not an infection at all, but rather excessive quantities of otherwise normal secretions. Other conditions such as; atrophic vaginitis, vaginitis emphysematosa, vaginal ulcers and vaginal fistulas cause vaginal discharge, but they are much less common.

Dashow and Llorens (1977), found that the resistant genital gonococcal infection to treatment with different types of antibiotics was due to retained intrauterine contraceptive devices. They found a dramatic cure and improvement with antibiotics after removal of the intrauterine contraceptive devices. Goldacre et al. (1979), found that the prevalence of *Candida albicans* was similar in women using different methods of contraception. They found that the prevalence of <sup>96</sup>anaerobes was more common among women who used the intrauterine contraceptive devices (33%) than among nonusers (16%). Also, they found that B-haemolytic streptococci were more common in women who used the intrauterine contraceptive devices than in others.

Burkman (1980), found that the use of non permanent forms of contraception, other than the intrauterine contraceptive devices, might exert a protective effect against the development of pelvic inflammatory disease.

Bramley et al. (1981), found that the prevalence of *Haemophilus vaginalis* organisms was higher with an intrauterine device, or other non protective contraceptives (8.6%). However, with partial protection the prevalence was 5% and when a sheath was used the prevalence was 3%.

Amsel et al. (1983), found that the presence of nonspecific vaginitis was correlated with a history of sexual activity, previous trichomoniasis and current use of nonbarrier contraceptive methods, especially the intrauterine contraceptive devices. They found that among patients with non-specific vaginitis, 18.8% were using the intrauterine contraceptive devices, while among normal patients, only 5.4% used the intrauterine contraceptive devices. Half of all their intrauterine contraceptive device users in their study had nonspecific vaginitis.

Curtis and Pine (1981), found that one or more species of actinomycetes were found in 8 out of 30

women with no intrauterine devices (27%), compared to 8 out of 18 patients who had an intrauterine device (44%). Cases of actinomycosis were manifested by variable degree of vaginal itching, discharge and bad odour. Fahmy et al. (1985), demonstrated a high incidence of actinomycosis in those using the intrauterine contraceptive devices than in nonusers. Also, they found that the incidence was higher in women wearing plastic loop (90%) than in those wearing copper T<sub>200</sub> devices (10%), demonstrating that copper ions may have a bacteriostatic effect and they recommended that copper-containing intrauterine devices should be widely used. J Y

Watt et al. (1981), demonstrated that the insertion process of the intrauterine contraceptive device was associated with an increase in the prevalence of anaerobic vaginal bacteria in the vagina, cervix and uterus.

Fiscina et al. (1973), found that several copper and cupric ions sources have been shown to kill or inhibit the growth of *Neisseria gonorrhoeae* in-vitro. Their findings on in-vitro susceptibility of gonococci to copper containing intrauterine devices might offer prophylactic protection against gonococcal infection

of the female genitalia. They also found that comparative data on the incidence of gonorrhoeae in patients with copper containing intrauterine devices and those with plain intrauterine devices would be most interesting.

Wahab et al. (1985), concluded that copper T<sub>200</sub> device insertion can result in quantitative, as well as, qualitative changes in the vaginal and cervical flora, so it seems a reasonable precaution to ensure that both the intrauterine device and the insertion equipment should be completely sterile at the time of insertion. The insertion of copper T<sub>200</sub> device was associated with an increase in the percentage of aerobic and anaerobic gram negative bacilli and bacteroides in the vaginal and cervical cultures. 10/1/79

Osser et al. (1980), stated that one of the most serious complications of the intrauterine devices use was pelvic inflammatory disease and that it has been estimated that two thirds of critical illness in connection with the use of the intrauterine devices are infectious.