Summary

Genital mycoplasma (G.M) is sexually transmitted disease. In patients with cervical malignancy there is alteration in the normal vaginal environment by necrotic tissue and blood that leads to changes in vaginal flora and increase incidence of genital mycoplasma and B.V infection, also women with recurrent & persistent genital mycoplasma and bacterial vaginosis are at high risk to develop cervical intra epithelial neoplasia (CIN).

This is a prospective cross-sectional hospital based open study, finally recruited 300 women among those attending the Gynecology Outpatient Clinics of Benha University Hospital.

Cases of the study were scheduled according to cytology report into two equal groups. The control group included 150 women with negative Pap smear for cervical atypia. The study group included 150 women with cervical squamous cell atypia recruited according to the order of diagnosis by Pap smear. The cytological report utilized the 2001 Bethesda System and identified 3 degrees of cervical atypia: atypical squamous cells of undetermined significance (ASC-US); low-grade squamous intraepithelial lesion (L-SIL); and high-grade squamous lesion (H-SIL).

All the studied cases (300 cases) were subjected to the following:

I. Clinical history taking.

II. Clinical examination.

e.g general & abdominal examination

III. Local examination.

Methods :-

Sample collection and processing: was performed during the postmenstrual period, after exclusion of recent sexual intercourse or vaginal douching during the previous 48 hours. The patient was placed in lithotomy

Position. Cervix was exposed through introduction of a non lubricated sterile Cusco speculum into vagina.

1-Papanicolau (Pap) smear: Sample was collected from the uterine cervix by rotating the Ayer's spatula 360̊ around the uterine ectocervix for scraping of the transformation zone. The sample was then smeared on a glass slide and immediately fixed by spraying with cytospray (ethyl alcohol) then sent to the cytopathology laboratory for staining and reading through the optical microscope.

2- **Bacteriological specimen:** sterile swabs were used to obtain discharge from the posterior vaginal fornix and endo cervix for diagnosis of presence or absence of genital mycoplasma (M. hominis and U. urealyticum) by mycoplasma IST -2 kits (bioMe@ rieux, Marcy-L'etoile, France).

Mycoplasma IST 2 (BioMerieux France).

The mycoplasma IST2 is a test for identification of urogenital mycoplasmas by cultivation, biochemical identification, indicative enumeration and antibiotic susceptibility testing to (doxycycline, josamycin, ofloxacin, erythromycin, tetracycline, pristinamycin, azithromycin, clarythromycin, ciprofloxacin) and interpreted according to manufacturer's instructions. Samples were considered as positive for M. hominis and U. urealyticum for values $\geq 10^4$ Color Changing Unit (CCU) per milliliter of the specimen.

Summary of the result

Using Mycoplasma IST2 kit, genital mycoplasmas were positive in (49.33% vs. 28.67%) of cases in study and control groups respectively. Ureaplasma urealyticum was isolated more frequent than mycoplasma hominis and mixed mycoplasma infection. Ureaplasma urealyticum colonization was demonstrated in women with HSIL (57.5%) significantly more frequent compared to women with LSIL (36.59%), ASCUS (30.43%), and with normal cytology (21.33%); p =0.019.