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Carcinoma of the female genital tract are the most prevalent forms of cancer in the world. Cancer of cervix is the most common site of cancer in most developing countries including India and remains a major cause of death.

Cancer screening in gynaecology is a recent phenomenon. It is only since the middle of the 20th century that the concept of doing a checkup on normal healthy women with the aim of finding an early asymptomatic cancer has been accepted in gynaecological practice all pre invasive and very early invasive lesions are completely asymptomatic. Only routine cervical screening will help to identify these lesions early, to day refined screening techniques and improved patient education has contributed to there early detection. The apparently prolong natural history of pre cancerous lesions of uterine cervix and accessibility of cervix for visual examination and to obtain exfoliative cells had made screening for cervical cancer most popular.

Screening is generally considered to be a medical investigation that does not arise from a patient's request for relief of symptoms. The screening is to diagnose a disease
before symptoms occur when treatment can overt disability and mortality.

Ewing over 40 years described, precancerous lesions as a term used to denote a lesion that proceeds and favours the development of cancer but does not possess the essential elements of cancerous process. These precancerous lesions have been recognized for well over half a century and have been intensively investigated for the past 25 years or more.

Carcinoma of uterine cervix is the only cancer that is preventable, this is because it can be easily detected in the precancerous stage of diseases by cervical screening. The benefits of cervical screening has been demonstrated in numerous studies, in Sweden this has resulted in 75% reduction in the incidence of cervical cancer (Stenkvist et al).

Cancer of cervix is a disease which has well known in India and Egypt years before the birth of Christ (1500 BC) Rubin (1910) introduced the term "carcinoma-in-situ" as a fore-runner of invasive carcinoma, Walter and Regan (1950) put concept of Dysplasia-A stage of pre invasive process prior to 'carcinoma-in-situ' in dysplasia essential change is in the nucleus which is always enlarged and hyperchromatic. Richart in 1967 brought the concept of cervical intra epithelial neoplasia (CIN). It is a histopathologicl condition where part or
whole thickness of cervical squamous epithelium is replaced by cells showing, varying degree of atypia.

Mild dysplasia (CIN I) involves basal one third of cervical squamous epithelium, changes are present in superficial or intermediate cells. Moderate dysplasia (CIN II) involves change in half to two-third, in addition superficial and intermediate cells and fair number of parabasal cell show the change. Severe dysplasia (CIN III) involves whole thickness except one or two superficial layers, changes in parabasal cells, chromatin is dense and uniform. Carcinoma-in-situ involves whole thickness and it progression to carcinoma cells, cases of mild or moderate dysplasia may revert back to normal, most often related to infection or may remain static or progress to severe dysplasia, long terms follow-up studies have shown that mild dysplasia progresses to severe in 16% of cases. Severe dysplasia is most susceptible to progress into invasive carcinoma.

Women with following risk factors are more prone to develop carcinoma cervix.

(A) Early sexual intercourse.

(B) Early age of first pregnancy.

(C) Too many births / too frequent.

(D) Low socio economic status
(E) Multiple sexual partners

(F) Sexually transmitted disease.

(G) Human papilloma virus (type 16, 18) and HSV type 2.

(H) Immuno compromised (HIV positive) individuals.

(I) Husband whose previous wife died of cervical malignancy

(J) Smoking habits.

Carcinoma of uterine cervix is most studied and researched. It is estimated that out of 480,000 cases seen approximately in the world of which over 75% are in the developing countries.

What is more disturbing is that the incidence is on increase and in 21st century their will be about 6,80,000 cancer cases out which 84% will be from the developing countries (Miller 1975) Therefore, it is mainly a health problem of developing world and to reduce incidence of carcinoma cervix it should be screened, detected and treated at early stage. In India the incidence of cancer cervix contain to be high, various cancer registers indicate that it is about 20 - 40 per 1,00,000 women.

Screening of carcinoma cervix is done by vaginal cytology. Cytology is by definition, the study of cells (Cytos in Greek
means cells). It was introduced in clinical medicine by George Papanicoleau, a Greek Scientist in 1943 he described the presence of abnormal cells in the vaginal smears of asymptomatic women which were exfoliated from an early carcinoma-in-situ. Since 1950, it has been accepted that an annual "Pap smear" on all women will control cervical cancer by diagnosing it early, at a stage when treatment can cure.

Vaginal cytology fulfills the most important criteria for a useful screening test with good sensitivity, specificity, low cost and little risk of discomfort to the patient and further effective forms of therapy are available when abnormal cells are detected.

Cells which are normally exfoliated from the genital tract are accumulated in the posterior fornix from where they can be picked up by vaginal cytology.

Cytology should be done in all patients with complains of menorrhagia, polymenorrhoea, bleeding per vagina off and on, contact bleeding, unexplainable leucorrhoea. It should also be done in cases of non healing ulcer of cervix, indurated spots on cervix, cervicitis, erosion on cervix, cervical growth, spotting of blood over examining finger. Cytological techniques has greatly helped to spot in significant no. of women asymptomatic and clinically non recognizable lesion of cervix.
Vaginal cytology should be done to all women above 30 years of age & and to those younger who, have born children and has become sexually active, a first smear should be taken at thirty years of women, second smear should be taken one year after the first to over come the false negative rate. If two smears are negative screening should be done every 3-5 years till 60 years of age. It is advocated that the sexually active older adolescent 18-21 year have pap smears atleast yearly it is also said that sexually active adolescent under 18 years should have annual pap smears.

Vaginal cytology has proved to be the more successful test for detection of precancerous lesion and is responsible for reduction of cervical cancer mortality and morbidity rates. However pap smear is not perfect, False negative results of various rates are reported occasionally because of blood, necrotic material and leukocytes, the often poorly preserved malignant cells from obvious carcinoma may be obscured resulting in negative smears (Blaus tein 1981) The speculum must be introduced without use of, lubricants as these may induce artifacts (De Narvaez and Blaus tein 1977)

Specificity of the cytology indicates ability of the test to identify healty persons in the screened population. It is approximately Ninety Nine percent accurate, false positive rates may be due to errors of interpretation, presence of
cervicitis, radiation, blood and necrotic material. Sensitivity of cervical smears is 85% false negative is 15%. It may be due to errors in sampling and screening or interpretation of smear (Wilkinson 1990, Soost et al 1991; Sunsri 1991).

Therefore in such cases where vaginal cytology has false negative results and also for the confirmation of diagnosis cervical biopsy should be done.

Endometrial carcinoma is showing increasing incidence in frequency and occurrence at early ages. It has been estimated by muenzer in 1974 that 7 lacs out of 45 million women under 35 years above will develop endometrial carcinoma. Ratio of endometrial cancer to cervical cancer is 1:25 (Ray Choudhary, 1975).

Improvement in survival figures will require an early diagnosis with use of effective screening approach prior to onset of symptoms of abnormal postmenopausal bleeding. Endometrial carcinoma is an easily curable disease which is true only if it is localized early. Therefore attempts have been made to identify women who are at risk for developing carcinoma. Risk factors for endometrial carcinoma are delayed menopause, hypertension, Diabetes, obesity, nulliparity, previous radiation therapy, unopposed estrogen stimulation, family history of endometrial carcinoma, Tamoxifen therapy.
The wide spread application and acceptance of cytology in the detection of uterine cervical cancer, would suggest the cytological study of endometrium offers the greatest opportunity of early detection of malignancy in this tissue but one of chief difficulties encountered in the cytological study of the endometrium has been related to inability to obtain a satisfactory and represented cellular sample, consistently, and also vaginal cytology have a low accuracy in the diagnosis of in the endometrial cancer because before endometrial cells reach vagina and posterior fornix, they are desquamated and tend to degenerate.

In 1943 Cary described the use of endometrial aspiration cytology in the diagnosis of cancer and other conditions of the uterus. It is simple technique which provides abundant cellular material available for early detection of carcinoma in female. Application of endometrial aspiration cytology to detect clinically unsuspected endometrial carcinoma and pre-malignant lesion of endometrium because malignant and hyperplastic cells are less cohesive they are more likely to exfoliate.

Endometrial aspiration smears on histology shows proliferative, secretory, atrophic endometrium and simple hyperplasia, atypical hyperplasia, adenomatus hyperplasia It is now possible to recognized at separate entities as varios
metaplasias as well as atypias which are caused by polyps, myoma, endometritis and squamous cell metaplasia of the endocervix. Prognosis of endometrial carcinoma is dependent on early diagnosis.

Simple hyperplasia (Cystic without atypia) progress to cancer is 1%, complex hyperplasia (adenomatus without a typia) progresses to carcinoma 3%, Atypical simple (Cystic without atypia) progresses to carcinoma in 8% cases and complex (adenomatus with a typia) progressive to carcinoma in 29% of cases. Aspiration cytology has 90% sensitivity for detection of endometrial carcinoma and 58% for endometrial hyperplasia.

Endometrial aspiration cytology can be used as a routine office procedure in cancer diagnosis. It has advantages, that delay on the part of physician or the patients is reduced, is convenient and time saving for both physician and patient, expense is less than with conventional curettage, its use releases hospital beds and operating rooms for other purposes. The proponents further claims that it is simple applicable to almost all patient and free of complications, adequate tissue almost always be obtained and that its diagnostic accuracy is equal to that of conventional curettage for high risk patient, screening for endometrial carcinoma should be done yearly.
Abnormal uterine bleeding is the most common clinical presentation of gynecological disorders in the peri and postmenopausal age group. An increasing incidence of endometrial cancer during past two decades has stimulated the gynaecologist to diagnose this tumour at early stage, so that treatment can be initiated. Although cervical scrape smear and vaginal cytology are healthful diagnostic tools and they are without limitations.

Recent articles have urged physician to give increased attention to use of cytologic and histopathologic techniques in the detection of precancerous and cancerous endometrial lesions, since there is an increasing incidence of malignant disease at this site.

Cytologic screening is an important diagnostic tool to detect precancerous and cancerous lesions of uterus and cervix.

There is recent rise in precancerous and cancerous lesion among gynaecological disease so there for necessity of early detection of both. Thus vaginal smear, cervical biopsy and endometrial aspiration have been adopted as cytologic and histopathologic procedures in this study. Hysterectomy has been performed after confirmation of diagnosis by cytology and biopsy.