INTRODUCTION
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Endometrial carcinoma is the second most common cancer of genital tract occurring in females in India. It has been assumed that overall 2-3% of women develop endometrial cancer in their lifetime.

In India for each cancer of endometrium there are 25% cases of cancer cervix. However, the incidence of carcinoma endometrium is increasing due to:

- Greater life expectancy.
- Greater availability of medical care and
- Increased use of oestrogen.

Various methods are available like cervico vaginal smear, vaginal pool cytology, endometrial lavage cytology, and aspiration cytology, detecting 40-70%, 48%, 63% and 90% of cases respectively. However, these methods are associated with patient discomfort, relatively low yield and lack of cost effectiveness. Considering above factors, it has become of immense importance that the cancer should be detected in earlier stages, as soon as possible.

Various premalignant conditions of the endometrium like endometrial hyperplasia is more likely to develop after prolonged period of anovulation and unopposed oestrogen stimulation.

Natural history of this disease as suggested by Hofmeister (1974) is graphically designated as:

Endometrial polyp being one of the preconditions ---- ,
--- Adenomatous hyperplasia ---- Cystic hyperplasia ----
--> Anaplasia ---> Carcinoma in situ ----> Carcinoma.
Hyperplasia can be of simple hyperplasia, complex hyperplasia, and atypical hyperplasia depending on the granular architecture and cytologic atypia.

The risk of endometrial hyperplasia progressing to carcinoma is related to the presence and severity of cytologic atypia. According to Kurman et al (1987) progression to carcinoma occurred in 1% patients with simple hyperplasia, 3% in patients with complex hyperplasia and 29% in patients with atypical complex hyperplasia.

In 25% of cases there may be evidence of endometrial hyperplasia preceding the development of endometrial carcinoma. Progression to endometrial carcinoma depends on the age of patient, stage of the disease, type of growth whether associated with diabetes, hypertension, in the line of treatment adopted when only endometrium is involved almost 100% salvage can be achieved with pan hysterectomy. With superficial myometrial infiltration the 5 years survival in 75-80%. However, the salvage rate drops to 50% if there is extensive myometrial or cervical involvement. With extra-uterine extension of the disease, the survival is less than 20% (Mc Lenon, 1976).

Routine papanicolaou testing is inadequate and endometrial cytology assessment is too insensitive and non-specific to be useful in screening for endometrial cancer even in high risk population.

Gambrell et al (1991) advocated the use of progestosterone challenge test in an attempt to remove the draw back
associated with other methods available till now. Various authors (Hanne et al, 1983; Toppozedo et al, 1988) have also tried progesterone challenge test as a screening test for endometrial carcinoma.

After administration of progesterone challenge test to asymptomatic post menopausal women, the presence or absence of withdrawal bleeding may add in detecting premalignant lesion of endometrium or endometrial carcinoma, and therefore could be used as screening procedure in post menopausal women at risk for developing endometrial carcinoma.

Progesterone challenge test will reveal whether the endometrium has been primed by oestrogen but it will not identify about endometrial pathology.

In progesterone challenge test (PCT), there is progesterone induced withdrawal bleeding. A positive progesterone challenge test indicates:

1. The presence of uterus with endometrium capable of a normal response to ovarian steroids (endometrium is primed by oestrogen).

2. The presence of some endogenous oestrogenic activity which in turn indicates -
   a. The presence of minimal ovarian activity.
   b. The presence of gonadotrophic stimulation, sufficient for evoking follicular maturation.
   c. The presence of hypothalamic LHRH activity sufficient for basic pituitary stimulation.
Gambrell et al (1980) used progesterone challenge test to identify post menopausal women at risk for adenocarcinoma of endometrium. This included 100 asymptomatic postmenopausal women in their study. Progesterone challenge test and endometrial biopsy both were done in all cases. 86 women exhibited no withdrawal bleeding. In all these cases the histology was normal, 14 women exhibited withdrawal bleeding, 9 of whom had unsuspected adenomatous hyperplasia and the other 5 had atypical endometrium.