

Editorial Note on Epidemiological Study in Female Patient

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EDITORIAL

Neoplasm, as defined by Willis, is “an abnormal mass of tissue, the growth of which exceeds and is uncoordinated with that of the normal tissues and persists in the same excessive manner after cessation of stimuli which evoked the change”. Malignant tumors are collectively referred as Cancers, i.e., “they adhere to any part that they seize in an obstinate manner.

Breast cancer is a heterogeneous and complex malignancy, which occupies first place in women in terms of incidence around the world. Reproductive and hormonal factors contribute most of the time for development of breast cancer.

Nulliparous, late age at first birth, late menopause, prolonged interval between menarche and late first full term pregnancy, repeated abortions, no/ less breastfeeding are major associated risk factors for breast malignancy. The changes in relative risk of breast cancer associated with menopause are believed to be due to the cessation of cyclical ovarian hormone production at menopause, the concentration in postmenopausal women increases with body mass index (BMI), largely because adipose tissue becomes the main site of estrogen production after menopause. Breastfeeding is associated with high prolactin levels, decreased estrogen levels production, and carcinogens flushing out during lactation, hence acting as protective factor. Termination of pregnancies during first trimester increases risk of breast cancer.

Women who did not have a FFTP until age 30 may already had cells that undergone early stages of malignant transformation, and pregnancy could have stimulated the growth of these mutated cells. Each birth reduces risk of breast cancer, and the oldest age at first birth was at higher risk than the youngest age at birth.

Ovarian cancers can be classified into three large groups: epithelial, germ cell, specialized stromal cell tumors. The incessant ovulation suggests that rupture and repair of ovarian surface epithelium, is thought to drive metaplastic changes. Menstrual cycles occurring between ages 25 and are more likely to be ovulatory and pregnancies occurring between these ages have a greater potential to interrupt ovulatory cycles. Thus, later ages at first, last birth provides support to hypothesis regarding incessant ovulation or ovarian inflammation. The gonadotropin hypothesis proposes that excessive gonadotropin secretion, FSH and LH in absence of estrogen release, leads to proliferation and malignant transformation of ovarian epithelium¹⁸.

Cervical cancer is the growth of abnormal cells in the lining of the cervix. It has been speculated that increased risk of HPV is because of biological predisposition of the immature cervix during adolescence that may be more susceptible to persistent HPV infections and therefore have a greater risk of cancer development. When this estrogen-stimulated metaplastic transformation occurs in presence of HPV, the probability of cell transformation increases, resulting in neoplastic changes.

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