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IS IT NECESSARY TO SUBJECT PATIENTS BETWEEN 25 TO 35 YEARS TO FINE NEEDLE ASPIRATION WITH AN ULTRASOUND DIAGNOSIS OF FIBROADENOMA?

***M. Khanbhai*[1,*], *R. Borgen*[2], *R. Dobrashian*[2]**
[1]Breast Surgery, National Health Service, [2]Breast Surgery, East Lancashire NHS Trust, Manchester, UK

Problem Statement: Best practice guidelines suggest that patients < 25 years with ultrasound diagnosis of fibroadenoma, biopsy can be avoided if certain radiological criteria are satisfied. We propose that the age can be increased to 35 years if the ultrasound findings are in keeping with fibroadenoma and there is no suspicion of malignancy. **Methods:** Records of women presenting to East Lancashire NHS Trust Breast Unit between 2013 and 2015 were obtained. Only patients between 25 and 35 years at the age of presentation, with clinical benign breast lump and an USS diagnosis of fibroadenoma were included. Corresponding fine needle aspiration (FNA) cytology was noted. Cost of FNA and specimen preparation was recorded. **Results:** A total of 135 USS diagnosis of fibroadenoma were reviewed, of which there were 121 patients with a mean age of 28.9 years. 100/135 (74.1%) of fibroadenomas were subjected to FNA, of which 75/135 (55.6%) revealed cytology of C2, 22/135 (16.3%) were C1. Only 1/135 (0.7%) fibroadenoma was C3, which on subsequent core-biopsy was B2. There were 35/135 (25.9%) fibroadenomas that were not subjected to FNA with a median age was 25 years. Equipment for FNA cost £0.73 and cytology was £90 for each specimen processed (total £9073) **Conclusion:** This study has demonstrated that it is safe to increase the age of patients with presumed fibroadenoma from 25 to 35 years without the need to confirm the diagnosis with FNA. In our study no cancers would have been missed in this age group providing strict sonographic and clinical criteria are used. **Disclosure of Interest**: None declared

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RELATIONSHIP BETWEEN URINARY BISPHENOL A LEVELS AND BREAST CANCER

***N. Rastkari*[1,*], *S. Alipour*[2], *M. Zare Jeddi*[1], *R. Ahmadkhaniha*[3], *M. Yunesian*[1]**
[1]Center for Air Pollution Research (CAPR), Institute for Environmental Research (IER), Tehran University of Medical Sciences, Tehran, Iran
[2]Department of Surgery, Arash Women's Hospital, Tehran University of Medical Sciences, Tehran, Iran,
[3]Department of Human Ecology, School of Public Health, Tehran University of Medical Sciences, Tehran, Iran

Problem Statement: Breast cancer is the most frequent cancer and the most common cause of death from cancer among women worldwide. Endocrine-disrupting chemicals (EDCs) have been suspected as potential risks of increasing cancers in reproductive systems and mammary gland, such as prostate cancer, breast cancer, etc. The estrogen-mimic bisphenol A (BPA) is a synthetic phenolic compound which people are exposed to frequently via different exposure routes. BPA acts as an estrogen mimetic, and can interact with the ligand binding domain of ERα, increasing cellular proliferation, potentially via reducing the rate of apoptosis, and inducing a gene expression profile that clusters with breast cancer poor prognosis. Studies suggest that environmental exposure to BPA is associated with behavioral and reproductive abnormalities, as well as chronic diseases. These findings raise important questions regarding the potential impacts of BPA on breast tissue and because animal studies found that BPA contributes to development of breast cancer, but human data are scarce we hypothesized that urinary levels of BPA may be positively associated with inducing neoplastic processes in the breast. **Methods:** In this case-control s study, we compared urinary BPA levels in patients with malignant breast mass (N=15), benign breast mass (N=15) and, women with normal breast (N=15). All the case and control participants supplied urine samples that were then analyzed for total BPA concentration. BPA was analyzed using solid-phase extraction coupled with gas chromatography-mass spectrometry