**Background:** It has been well-known that smoking is a risk factor for a variety of cancers in humans eg. Lung, stomach and urinary bladder cancers. Till now there has been no clear association between smoking and breast cancer.

There is a well-established relationship between smoking and duct ectasia/ periductal mastitis.

The presented study tries to spot the light on how smokers differ from nonsmokers regarding the diagnosis of breast lumps and the relative percentage of each diagnosis.

**Methods:** A random sample of 114 patients with breast lumps (half of which were smokers and the other half non-smokers) had been studied prospectively and the diagnosis made by "triple assessment", when necessary excisional biopsy, then the diagnosis difference between the smoker and the nonsmoker group had been studied. The smokers had been smoking one packer or more each day.

**Results:** All of the patients were females with age between 13 and 70 years (mean age 41).

The diagnosis of the lumps in the smokers sample was as follows: fibroadenoma 20(35%), fibrocystic disease 16(28%), breast abscess 7(12.3%), carcinoma 7(12.3%), duct ectasia/ periductal mastitis 4(7%), galactocele 3(5.3%), total number of patients 57.

The diagnosis of the lumps in the non-smokers sample was as follows: fibroadenoma 18(31.6%), fibrocystic disease 16(28%), breast abscess 8(14%), duct ectasia/ periductal mastitis 6(10.5%), galactocele 4(7%), carcinoma 2(3.5%), Pylodes 1(1.8%), nonhodgkin lymphoma 1(1.8%), lipoma 1(1.8%), total number of patients 57.

**Conclusion:** Reviewing the diagnosis of breast lumps in smokers and nonsmokers reveals two important facts: a significantly higher incidence of breast cancer has been found in the smokers. Another unexpected finding was that duct ectasia/ periductal mastitis was more common in the nonsmoker sample.