

P52. THE EXPRESSION OF CYP1A1 AND CYP1B1 ISOENZYMES IN BREAST CANCER, IN RELATION TO CHEMOTHERAPY

Arzu Kaya KOÇDOĞAN, Serpil OĞUZTÜZÜN, Emine BENZER, Murat KILIÇ, Gülay DILEK, Yavuz Selim KAHRAMAN, Mehmet Ali GÜLÇELİK

Kirikkale University Faculty of Science and Arts, Department of Biology, Kirikkale Turkey

Dr. Abdurrahman Yurtarlan Ankara Oncology Education and Research Hospital, Department of Pathology, Ankara Turkey

Ankara University Vocational School of Health Services, Department of Pharmacy Services, Ankara Turkey

Dr. Abdurrahman Yurtarlan Ankara Oncology Education and Research Hospital, Department of General Surgery, Ankara Turkey

Breast cancer is the most common cause of cancer related deaths in women. Environmental chemicals are one of the risk factors in breast cancer genesis. Cytochrome P450 (CYP) enzymes play a major role in the activation of these chemicals. Of environmental factors, especially polycyclic aromatic hydrocarbons (PAHs) have been suggested to play a causative role in breast cancer etiology. In this study, the protein expressions of CYP1A1 and CYP1B1 isoenzymes will be investigated in chemotherapy-treated and non-treated breast cancer patients' tissues. Their expression differences between two groups were examined statistically.

The expressions of CYP1A1 and CYP1B1 isoenzymes were studied by Immunohistochemistry method from 50 chemotherapy-treated and 95 non-treated breast cancer patients' tissues and peripheral to tumor tissue as a control.

The CYP1A1 and CYP1B1 expressions were higher in tumor epithelium than that in normal epithelium in breast cancer patients's tissues. There was not any statistically significant differences CYP1A1 and CYP1B1 expressions in the tumor and normal epithelium of the chemotherapy-treated and non-treated breast cancer patients' tissues ($p>0.05$). There were not any statistically significant differences between the CYP1A1, CYP1B1 expressions and clinical information (estrogen receptor status, progesterone status, tumor grade, smoking status, patient's age) ($p>0.05$). There was a positive correlation between expressions of CYP1B1 and smoking status in chemotherapy non-treated breast cancer patients' tissues ($p=0,024<0.05$)

In conclusion, CYP1A1 and CYP1B1 isoenzymes may play a role in development and tumorigenesis of breast cancer.

*arzukayakocdogan@gmail.com