19 (55.9%) operated abused alcohol, 13 patients (38.1%) did not work.

Conclusions: It is possible to believe, that development of lung cancer in 24.8% patients promoted chronic tubercular process, which in 18 (52.9%) from among revealed was from children's age. Smoking, alcohol, irregular treatment, ecological factors, a bad feed have served as a background for development of cancer process.

P36

Age and oncological burdening families of breast cancer in Ukraine

N. Boroday[1], D. Klyushin[2], Yu. Petunin[2], O. Lyakhovka[2], L. Dosenko[3], S. Sclyar[3]
[1]*Kavetski Institute of Experimental Pathology, Onco, Department of Biochemistry;* [2]*Kiev National Taras Shevchenko University, Department of Cybernetics;* [3]*Institute of Oncology of Medical Acad. of Sciences of Ukraine, Kiev, Ukraine*

Breast cancer (BC) is the leader in Ukraine since 1977 and morbidity increases every year. Part of hereditary factor of BC puts together 55.68±2.44% and environmental factors - 44.32±3.89%. The aim is to define age peculiarities in women BC with different burdening degree on oncopathology.

Methods: The epidemiological, medico-geographic diffusion analysis of BC in Ukraine, clinico-genealogical and cytospectrophotometrical methods were used in this investigation.

Results: In 2002 morbidity by BC put together 56.2 on 100 thousand population in Ukraine. Medico-geographic analysis showed a tie of harmful environmental factors in making BC, most morbidity chronicled in inductrial regions, Odessa regions, Crimea and Kiev. A seen out age comparison on fifth anniversaries in women with burdening on oncopathology (174 women - I group) and without burdening (73 women - II group) exposed more young age in group with two lances in premenopausal and postmenopausal periods. Correlation between these groups put together 43.9 and 17.4% in groups with burdening and without burdening on oncopathology. Cytospectrophotometrical research of DNA content of healthy women with benign proliferative processes and BC exposed the meaningful distinctions in these groups. Like so BC arose attached to accumulation neoplasms in families early more in life that related to typical gormonal changes. The patients without accumulation neoplasms in families were in more elder age. Cytospectrophotometrical analysis of DNA content in buccal epithelium exposed considerable augmentation of this index attached to BC on comparison with healthy women and women with benign proliferations. Maintenance of DNA content can be a marker of malignancy in organism. So far as maintenance DNA content was above in patients, included in I group, this test jointly with clinico-genealosical families research can be used for apportionment of patogenetical type of BC with hereditary predisposion.

P37

Positive effect of pretreatment by β-1,3-glucans in murine tumors: Cystatin C and stefin A as tumor markers

T.A. Korolenko[1], O.N. Poteryaeva[2], O.V. Falameeva[1], T.A. Usova[1], T.I. Pospelova[3], V.I. Kaledin[4]
[1]*Institute of Physiology RAMS, Cell Biochem;* [2]*Institute of Biochemistry RAMS, Biochem;* [4]*Novosibirsk Medical Academy, Haematology;* [5]*Institute of Cytology and Genetics RAS, Experimental tumors, Novosibirsk, Russia*

Cystatins - cystatin C (CC), stefin A (SA) are natural tight-binding, reversible inhibitors of cysteine proteases, having immunomodulatory activities (Vray et al., 2002). CC and SA were used as possible tumor markers in several human tumors (Kos and Lah, 2001). The aim: to compare the role of inhibitors of cysteine proteases as possible tumor markers in murine models of tumors and in human oncohematological diseases.

Methods: CBA (lymphosarcoma LS), CBA/C57Bl6 (Lewis lung adenocarcinoma) and A/Sn (HA-1 hepatoma) mice were used; treatment included cyclophospamide, CPA, in doses of 50-150 mg/kg, and b-1,3-glucan (produced by Chemical Institute SAS, Bratislava, Slovakia), 25 mg/kg, one day before or simultaneously with CPA. CC and SA concentrations were measured by ELISA kits (KRKA, Slovenia).

Results: Comparatively to healthy controls in humans with haemoblastosis (46 patients with Hodgkin's and Non-Hodgkin's lymphomas) serum CC concentration increased and had a tendency to normalization after effective antitumor treatment. Preliminary administration of b-1,3-glucan prolonged the life-span of mice with lymphoma LS and Lewis lung adenocarcinoma. Murine tumor development was followed by decreased serum level of extracellular inhibitor CC (Lewis lung adenocarcinoma, lymphosarcoma LS, HA-1 hepatoma) and increased serum concentration of intracellular inhibitor SA (HA-1 hepatoma, Lewis lung adenocarcinoma). In general, changes of CC and SA concentrations in serum of tumor bearing mice were opposite. In tumor tissue of the same groups of mice very low CC concentration was noted, increased after effective antitumor treatment by CPA; SA concentration also increased (treatment by CPA of lymphosarcoma LS and by carboxymethlated b-1,3-glucan of HA-1 hepatoma). Serum inhibitor of serine protease - a1-protease inhibitor (a1-PI) activity also decreased in all murine tumors studied (HA-1 hepatoma-up to 70% from the control), lymphosarcoma LS - 2-times, Lewis lung adenocarcinoma -2-times. There was no restoration of serum a1-PI activity after effective antitumor treatment.

Conclusion: One can conclude that in models of murine tumors CC concentration in tumor tissue and also in serum can be used as a marker of tumor development and efficacy of therapy, CC changes in tumor bearing mice are contrary to data in human haemoblastosis studied; changes of SA in murine tumors were less informative as compare to CC. Supported by INTAS grant 02-0592 (TAK, UTA)