with ABC. Markers were determined before, during and after tr (hormono or chemotherapy). Cut off was: CEA = 5; MCA = 11; CA 15.3 = 30. Pre-treatment CEA was elevated in 51% of pts, MCA in 72% and CA 15.3 in 71%. In this subgroup of pts these markers were correlated to response to tr respectively: CEA in 75% of pts, MCA in 82% and CA 15.3 in 79%. We observed that CEA showed an inferior sensitivity to the other markers (51% vs 72% and 71%). We concluded that these markers can be useful to monitor the therapy in pts with elevated levels pretreatment. We believe interesting to determine them together pretreatment, because at least 1 of the 3 was elevated in 89% of pts.

1264 POSTER

CYTOKERATIN 19 SOLUBLE FRAGMENTS (CK19) DETERMINATION IN PATIENTS WITH NON-SMALL CELL LUNG CANCER (NSCLC): COMPARISON WITH TPA, CEA, SCC AND NSE

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Preliminary studies have shown a correlation between CK 19 high levels and NSCLC. In order to evaluate the clinical role of this tumour marker, we have compared CK 19 with TPA, CEA, SCC and NSE in a series of 72 patients with newly diagnosed, histologically proven NSCLC (39 squamous cell, 33 adenocarcinoma); all patients underwent surgical resection. CK 19 serum levels were determined by means of the Enzymun Test Cyfra-21.1 (Boehringer Mannheim). ROC curves were defined for each tumour marker; Youden test, Mann-Whitney U test and the Kruskal-Wallis test were used for statistical analysis. Our data show that CK 19 is an accurate tumour marker in patients with NSCLC and it displays a close association with the squamous cell histotype. However, CK 19 does not offer better informations than CEA in adenocarcinoma and TPA in squamous cell carcinoma.

1265 POSTER

THE DIAGNOSTIC POTENTIAL OF "ONCOTEST" AS A METHOD FOR POPULATION SCREENING TO DETECT MALIGNANT TUMORS

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Our method of marker diagnosis of human malignancies is based on detection of Ca^{+2}-Histone complexes in peripheral blood which enter circulation from foci of primary and/or secondary malignant neoplasia as a result of the former split from tumor cell DNA (PCT/UA/00007, 031293, International Bureau of WIPO, Geneva, Switzerland). We performed screening of 3820 employees in Kiev: results of ONCOTEST were correct for 3800 PA (true negative-3773, true positive-17) with 20 errors (false positive-18, false negative-2). Morphologic verification of 17 true-positive results revealed 8 cancers: esophageal-1, gastric-1, rectal-1, breast-1, lung-1, thyroid-1, uterine-3, osteosarcoma-1, Ewing's sarcoma-1, soft tissue sarcoma-2, lymphosarcoma-3 and lymphogranulomatosis-1.

1266 POSTER

USE OF SERUM THYROGLOBULIN FOR MONITORING THE EFFECT OF CHEMOTHERAPY AND IRRADIATION IN DIFFERENTIATED THYROID CANCER

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Standard evaluation of the effect of chemotherapy (CHT) and/or irradiation (RT) by measuring tumor diameters can be misleading due to tumor necrosis. The aim of this work was to study the value of sequential Tg measurements for monitoring the effect of treatment in inoperable differentiated thyroid cancer (DTC).

From 1985–1993, 48 cycles of treatment were applied in 36 patients (27 females, 9 males, age 33–81 years) with primarily inoperable, recurrent or metastatic DTC. Serum Tg measurements were performed before therapy (CHT or CHT and RT), 24, 48, 72, 96 hours and 3 weeks after treatment. The changes in Tg levels, tumor diameters, cytomorphology and DNA distribution pattern after treatment were evaluated.

In 39/48 cycles the results of monitoring the effect of treatment by serum Tg measurements were in agreement with the results of other methods. In 6 patients elevated serum Tg after treatment were observed, which could classically be interpreted as tumor progression. However, the other methods indicated excellent treatment effect. In latter increased Tg was the consequence of tumor necrosis and increased efflux of Tg. Consequently, the actual sensitivity of monitoring treatment by Tg measurements was 93.7% (45/48). Beside the changes in cytomorphology and DNA distribution pattern, the Tg levels can be an early indicator for effectiveness of CHT.

1267 POSTER

EXPRESSION OF HER-2/NEU EGFR, HORMONE RECEPTORS, CATHEPSYN-D AND PLOIDY IN NORMAL AND NEOPLASTIC GI TRACT TISSUES

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Six biochemical parameters, recognized as being prognostic factors in breast cancer, were evaluated on fresh samples of human GI tract tumors to better define the biology and natural history of such neoplasms. Levels of expression of HER-2/neu oncogene and epidermal growth factor receptor (EGFr) protein products, ER, PgR, cathepsin-D and ploidy were determined in 16 gastric and 39 colorectal tumors and compared with normal samples from the same subjects. In 56% of gastric, 61% of colon and 35% of rectum carcinomas HER-2/neu gene product p185 was significantly overexpressed as compared to normal tissues. On the contrary colon and rectum tumors expressed significantly lower levels of EGFr than normal in 60% of cases. Very low levels of ER and PgR were detected in all the samples (normal and malignant) tested. 75% of tumour tissues showed a significant higher cathepsin-D content compared to the respective normal sample while an aneuploid DNA profile was documented in 72% of neoplasms. Overall, change of the markers evaluated seems to be a specific phenomenon of certain GI carcinomas. Higher EGFr levels in normal than malignant tissues suggest that EGFr can be implicated in the process of growth and differentiation of the normal gastrointestinal mucosa. Further studies on a larger number of cases along with an adequate follow-up of patients are needed to define the role of these markers in the pathogenesis of GI tract neoplasms and its prognostic significance when considered together with other major risk factors.

1268 POSTER

IS AN INCREASED CARCINOEMBRYONIC ANTIGEN (CEA) CONCENTRATION IN PERICARDIAL FLUID AN INDICATION OF MALIGNANT PERICARDITIS?

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The aim of the study was to evaluate the role of CEA in pericardial fluid (pf) for the recognition of malignant pericarditis. 30 patients (pts): 15 men, 15 women, median age 61 years with large pf of unknown origin were treated with pericardiocenthesis, cathether instillation and pf drainage. In 21 of them malignant pericarditis was diagnosed. The primary site of tumor was lung in 19 pts, pleura in 1 pt and large bowel in 1 pt. In 9 pts the cause of pericarditis was benign. CEA was measured with radioimmunoassay. Cut off value was calculated at 7 ng/ml. Elevated CEA levels were found in 18/21 malignant pf and 0/9 nonmalignant pf. Mean CEA values were: 52.29 ± 40.66 ng/ml for malignant pf and 2.21 ± 1.28 ng/ml for nonmalignant pf. We conclude that CEA determination in pf is very helpful in recognition of malignant pericarditis.

1269 PUBLICATION

THE VALUE OF FERRITIN IN THE DIFFERENTIAL DIAGNOSIS OF MALIGNANT EFFUSIONS

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The diagnostic value of ferritin in pleural effusion or ascite was studied in 147 patients (89 males and 58 females). One hundred and fifty-one samples (99 pleural effusions and 52 ascites) were examined. The effusions comprised 4 groups: transudate, tuberculous, malignant and benign non-tuberculous exudate. Median ferritin levels in effusions were as follows: 67 ng/ml (27 cases) in transudate, 889 ng/ml (47 cases) in tuberculous, 998 ng/ml (51 cases) in malignant and 805 ng/ml (26 cases)