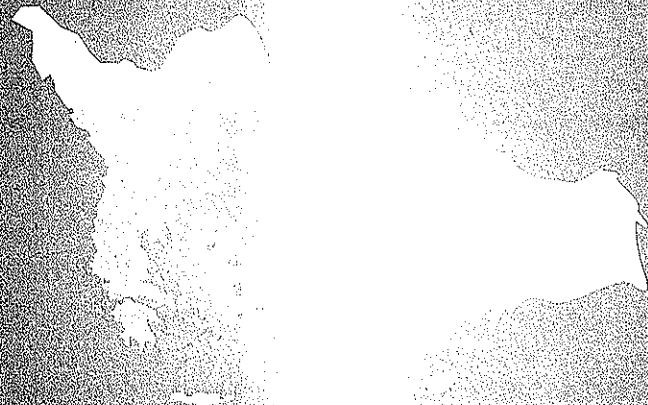


Journal of
B.U.ON.

OFFICIAL JOURNAL OF THE BALKAN UNION OF ONCOLOGY



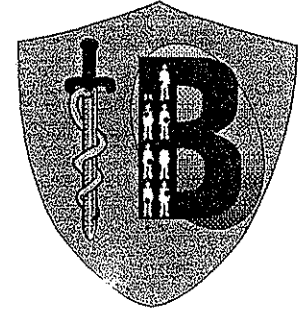
Volume 3, Supplement A

September 1998

ISSN 1107-0625

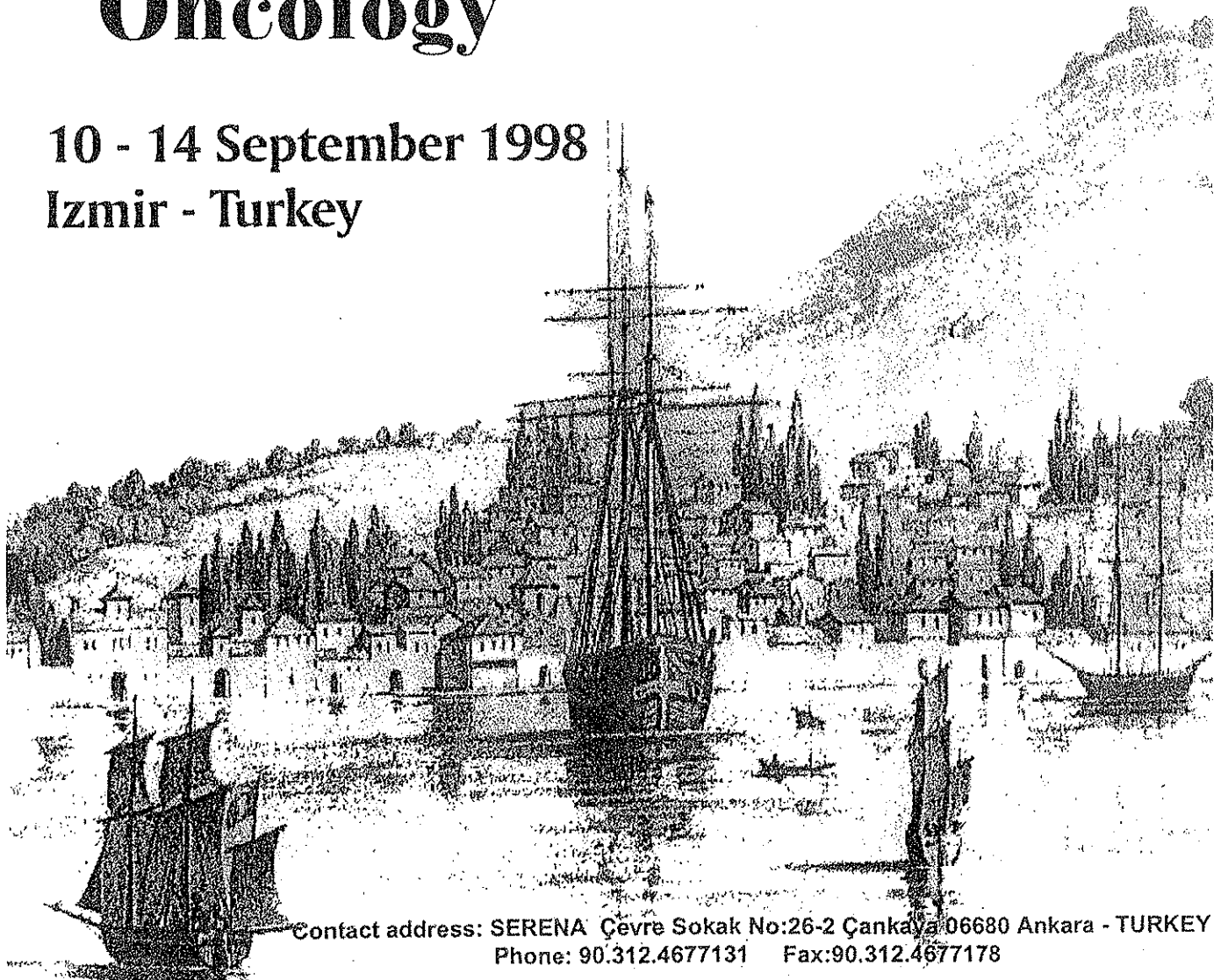
Balkan Union of Oncology

B.U.ON



2nd Balkan Congress of Oncology

10 - 14 September 1998
Izmir - Turkey



Contact address: SERENA Çevre Sokak No:26-2 Çankaya/06680 Ankara - TURKEY
Phone: 90.312.4677131 Fax:90.312.4677178

P 181

EXPRESSION OF $\alpha 2\beta 1$, $\alpha 3\beta 1$, $\alpha 4\beta 1$ INTEGRINS IN BLADDER CANCER

İzci Ö¹, Atabey N¹, Yörükoğlu K², Erkızan V¹, Güzelsoy M³, Kırkalı Z², Sakızlı M¹
 Departments of ¹Medical Biology, ²Pathology, ³Urology School of Medicine Dokuz Eylül University, Inciraltı, İzmir, Turkey

Integrins are the family of transmembrane heterodimers that play an important role in cell-cell and cell extracellular matrix interactions. In general, the beta 1 subfamily of integrins is important in tumor invasion and dissemination. To identify the pattern of expression of beta 1 integrins in relation to the malignant phenotype of bladder cancer, we performed an immunohistochemical study for the alpha 2 beta 1 (VLA-2), alpha 3 beta 1 (VLA-3) and alpha 4 beta 1 (VLA-4) in 32 tissue biopsies obtained from 16 patients. Pearson's correlation test was used for statistical analysis. Ninety three percent of normal urothelial tissues expressed alpha 2, 100 % expressed alpha 3 and alpha 4. Among neoplastic bladder tissues, alpha 2 was detected in 47 %, alpha 3 in 50 % and alpha 4 in 100%. These results support that, alpha 2 alpha 3 integrin expression were decreased in neoplastic urinary bladder cells although this decrease is not statistically significant.

P 182

RETROVIRAL GENE TRANSFER OF HUMAN DIHYDROPYRIMIDINE DEHYDROGENASE (DPD) cDNA IMPARTS RESISTANCE TO 5 FLUOROURACIL (5-FU)

A. Uğur Ural¹, Naoko Takebe², S. C. Zhao², Debabrata Banerjee², Michael Sadelain², Joseph R. Bertino², ¹Department of Hematology, Gülhane Military Medical Academy, Ankara, TURKEY, ²Program of Molecular Pharmacology, Memorial Sloan-Kettering Cancer Center, New York, NY, USA

5-FU is used to treat solid tumors, including breast, gastrointestinal and head and neck cancers. The spectrum of toxicity associated with 5-FU varies according to dose, schedule, and route of administration. When 5-FU is given in high doses by rapid injection weekly or biweekly, leukopenia is the dose limiting toxicity. Severe 5-FU toxicity has been reported among patients lacking DPD enzymatic activity. DPD is the principal enzyme involved in the degradation of 5-FU to 5'-6'-dihydrofluorouracil, a non-toxic substance. We demonstrate here that over expression of human DPD confers resistance to 5-FU in cell lines as well as mouse bone marrow cells. MFG based retrovirus vector carrying human DPD cDNA, an Internal Ribosomal Entry Site and neomycin phosphotransferase gene, SFG-DPD-IRES-Neo was used to infect NIH3T3 cells. Transduced cells demonstrated two fold increase in resistance to 5-FU (4 hour exposure) in comparison to non-transduced cells based on the 50 % inhibitory concentration. Expression of the transgene was confirmed by northern blot analysis. CFU-GM assay performed in the presence of 5-FU incubated for both 4 hours and 10 days after transduction by co-culture with AM12 producer cells showed resistance to 5-FU in both cases. We suggest that over expression of DPD increases 5-FU resistance *in vitro* and this construct may lead to the protection of bone marrow progenitors from 5-FU toxicity.

P 183

TUMOR MARKERS CA 15-3, CA 125, b-HCG AND AFP IN MONITORING OF PATIENTS WITH MALIGNANT BREAST AND GONAD TUMOURS

Prof. V Orbetzova MD, PhD, K. Hinov MD - Central Clinical Laboratory, University Hospital "Tzaritza Joanna", Sofia, Bulgaria

This study is a part of a prospective investigation on a clinical significance of Tumour Markers (TM). The Abbot IMx, MEIA methods for quantitative measurement of TM CA 15-3, CA 125, bHCG and AFP have been used. The results from 44 patients with breast and female gonad tumours, as well as of 66 patients with male gonad tumours were summarised in this paper. Most of the patients were followed before and after treatment (surgical, or conservative - chemotherapy, or irradiation therapy). Above mentioned TM were measured simultaneously with other analytes - specific, or non-specific TM. Correlation between TM and histological results have been made. Our results suggested the following presumptions:

1. 30% of all of the investigated breast tumour patients were CA-15-3 positive, the percentage of the preparative patients, having been higher (57%). There was significant positive correlation, between the CA 15-3 values and the positive histological results. CA 125 was not elevated in all of the breast cancer patients.
2. 30% of the female gonad patients have showed increased CA 125 values, while 40% of them were also with elevated CA 15-3 values. There was a positive correlative relationship, between these two TM. In the three patient with extremely high CA-125 values, CA 15-3, compared to the value, was also significantly increased.
3. Only few patients with male gonad tumours had elevated b-HCG values (8%) - all cases with embryonic pattern.
4. AFP was positive in about 20% of all of the investigated patients with Ca Testis.

The monitoring of the positive TM patients was very useful for the second look surgery, the appearance of metastases, as well as for the evaluation of the therapeutical effectiveness. At the same time the TM negative patients, also have to be followed, especially during the chemotherapy.

P 184

IMMUNORADIOMETRIC ASSAY FOR HUMAN THYROTROPIN (h-TSH)- MONOCLONAL ANTIBODY RADIOIODINATION

V.BORZA, D.CHARJTON, E.NEACSU, V.MIHAILA
 National Institute of R&D in Physics and Nuclear Engineering-Horia Hulubei (IFIN-HH), Bucharest -Magurele, Romania

¹²⁵I labelled monoclonal antibody (Mab)h-TSH was prepared to be used for determination of h-TSH in clinical assay laboratory by an immunoradiometric assay (IRMA).

Determination of h-TSH by this method helps to confirm the diagnosis of thyroid toxic adenoma or hypophysis tumours.

In this paper, the preparation and characterization of this reagent is described. The radioiodination of monoclonal antibody TSH was carried out chloramine T method and the reaction mixture was purified by chromatography on a G150 Sephadex column. The reaction yields were around 80% and ¹²⁵I-Mab anti h-TSH has the following characteristics: specific activity = 20-24 μ Ci/ μ g and radioactive concentration \approx 25 μ Ci/ml. Also, the immunological properties of the tracer were verified.

¹²⁵I labelled monoclonal antibody h-TSH will be used as reagent for direct immunometric assay of h-TSH.