

patients in whom treatment was successful CEA excretion declined, contrary to the remainder of this group, who showed both progression of the disease and increase of CEA.

It is concluded that CEA estimations are highly valuable for diagnostic and follow-up purposes in patients with bladder carcinoma provided that urinary infections are absent.

**RADIOIMMUNOASSAY OF HCG,  $\alpha$  AND  $\beta$  SUBUNITS IN CANCER.** P. FRANCHIMONT and A. REUTER. Institute of Medicine, University of Liège, Belgium.

The specific measurement of  $\beta$  HCG and native HCG is possible. We have prepared a specific antiserum anti-HCG which does not give any cross-reaction either with the other glycoprotein hormones (follicle stimulating hormone, FSH, luteinizing hormone, LH, thyrostimulating hormone, TSH) or with  $\alpha$  and  $\beta$  subunits of HCG.

Another method for assaying native HCG is to use a system constituted of labelled  $\beta$  subunit with an anti- $\beta$  subunit antiserum and pure HCG as standard preparation. For the specific measurement of  $\beta$  HCG subunit, we use a homologous system in which the glycoprotein hormones as well as  $\alpha$  and  $\beta$  LH subunits do not interfere. For the measurement of the  $\alpha$  subunit we have a less specific system. However, correction is possible knowing the normal interference in the sera of normal healthy subjects and not pregnant subjects.

Using these methods, we have detected HCG,  $\alpha$  and  $\beta$  subunits of HCG in pathological ranges in 81%, 100% and 75% in trophoblastic and embryonic tumours (21 cases) respectively. In 78 patients with non-trophoblastic tumours, native HCG  $\alpha$  and  $\beta$  subunits HCG were respectively detected in 11%, 11% and 24% of the cases.

**VAGINAL CYTOLOGIC EVALUATION AS A PREDICTIVE TEST ON HORMONE DEPENDENCY AND RESPONSIVENESS TO PROGESTOGENS OF ENDOMETRIAL ADENOCARCINOMA.** P. IDE and J. BONTE. University of Louvain, Belgium.

Progestogens seem to be very useful not only as a complement to combined radio-surgical therapy of localized endometrial

adenocarcinoma but also as an exclusive treatment of recurrent or metastatic cancers. Exclusive high dosage medroxyprogesterone treatment brings about a significant remission in almost 50% of the recurrent or metastatic endometrial adenocarcinomata. Vaginal cytological evaluation before and during therapy has a striking prognostic value. In 57% of the patients presenting an oestrogenic vaginal smear (68% of total patient number) before medroxyprogesterone treatment a significant tumour remission is observed. Progestational treatment changing an oestrogenic smear to an intermediate or to an atrophic one, or bringing an intermediate smear to atrophy induces a 92%, even a 100%, significant remission rate. Return of the vaginal smear to an oestrogenic aspect after withdrawing the medroxyprogesterone therapy, or even during this treatment, announces a new progression of the adenocarcinoma.

**CHARACTERIZATION OF IMMUNOCOMPETENCE IN CANCER PATIENTS.** F. DE HALLEUX, C. DECKERS, M. T. SIMON-MEULENBERGS and H. MAISIN. Institut du Cancer, Louvain, Belgium.

Aiming towards a thorough evaluation of the prognosis and the immunological approach of the therapy of cancer patients, nonspecific as well as specific immune reactions have been investigated by *in vivo* and *in vitro* tests.

The anamnestic response to PPD (purified protein derivative) tuberculin was investigated by Mantoux tests and leucocyte migration tests. The results show that for 19/38 patients with a positive Mantoux test the average migration inhibition index was 12.43%. The 19 negative patients had an average index of 1.23%. A primary response was investigated by cutaneous sensitization to DNCB (dinitrochlorobenzene). The specific immune reactions were tested by  $^{51}\text{Cr}$ -release lymphocytotoxicity assay against allogeneic tumour cells of the same histological type. The lymphocytotoxicity indices were above 30% for 6/10 melanoma patients and 1/6 breast tumour patients. No healthy individual nor patient with unrelated tumour had an index above 28%. Some correlation between these results and the clinical status of the patients has been observed, however, larger series will be needed for demonstrative evidence.