INTRODUCTION

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Lung cancer is believed to be the commonest fatal neoplastic disease in the world today *(International Agency for Research on Cancer, 1994).*

Lung cancer, the most frequent malignant tumour in industrialized countries after breast and colo-rectal cancers is classified as small-cell lung cancer (SCLC), squamous cell carcinoma, primary adenocarcinoma and large-cell carcinoma. The neuroendocrine properties of SCLC give it specific biological and clinical feature. Since from a prognostic and therapeutic viewpoint squamous cell carcinoma, primary adenocarcinoma and large-cell carcinoma behave similarly, they are all pooled into a single group named non-small cell lung cancer (*Plebani et al., 1995).*

In view of the fact that pulmonary malignancies represent an important cause of tumour death and that the high rate of unsuccessful treatment may be partly due to the late clinical presentation. Efforts should be spent not only to develop new and effective treatment, but also to improve early diagnosis and to identify prognostic factors and parameters useful for the monitoring of the treatment. Tumour markers if used properly,

can provide a useful support for the management of patients suffering from various malignancies, including lung cancer patients *(Rapellino et al., 1995)*.

In order to improve the clinical approach to lung cancer patients, several serum tumour markers have been studied, and in this context recent interest has been focused on the role of serum cytokeratins *(Pujol et al., 1993; Stieber et al., 1993; Ebert et al., 1994; Plebani et al., 1994; Vander Gaast et al., 1994)*, which make up the intermediate filament cytoskeleton within epithelial cells, and consist of at least 19 different polypeptides, numbered 1 to 19 *(Moll et al., 1982)*.

Tissue polypeptide antigen (TPA) detects mainly cytokeratins 8 and 19 and, to a very small degree, cytokeratin 18, while tissue polypeptide specific antigen (TPS) mainly detects cytokeratin 18 and, to a small extent, cytokeratin 8 and 19 *(Bodenmuller, 1993)*. TPA is recognized by polyclonal antisera against cytokeratin 8, 18 and 19. To enhance the sensitivity and specificity of TPA assay, a new assay is now available, which is based on the use of three monoclonal antibodies 8, 18 and 19, allowing detection of TPM antigen *(Gion et al., 1994)*. TPA and cytokeratins seem to

lung cancer *(Ebert et al., 1994)*.

Squamous cell carcinoma antigen (SCC) & carcinoembryonic antigen (CEA) have been extensively studied in patients with lung cancer; however, their sensitivity and specificity have usually been reported as low *(Mizushima et al., 1991; Jarvisalo et al., 1993; Ebert et al., 1994)*. Few reports deal with a combind evaluation of various tumour markers in lung cancer diagnosis *(Ebert et al., 1994)*.