Introduction

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Aim of The Work

INTRODUCTION

Bronchogenic carcinoma is a major medical problem as its incidence is steadily increasing (***Huang,*** 1997). Lung cancer is believed to be the commonest fatal neoplastic disease in the world today (***International Agency for Research on Cancer,*** 1996).

In view of the fact that pulmonary malignancies represent an important cause of tumor 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 (***Khalifa et al.,*** 1983).

Tumor 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).

Cytokeratins are intermediate filaments expressed by epithelial cells and their malignant counterparts. Immuno-

histochemical studies using broad spectrum cytokeratin antibodies have demonstrated the expression of cytokeratins in both small cell lung cancer and non-small cell lung cancer, which suggests a common endodermal lineage. Although cytokeratins are part of the cytoskeleton, some fragments might be released in the serum owing to cell lysis or tumor necrosis, which gives support to the evaluation of serum cytokeratins as markers of lung cancer (***Bjorklund,*** 1992).

Recently, a new tumor marker called (CYFRA 21-1) has been described for the detection of the cytokeratin 19 fragment in serum. This fragment can be measured by a new immunoradiometric assay using two mouse MOAb, KS19-1, and BM19-21 (***Huang,*** 1997).

Squamous cell carcinoma antigen (SCC) and carcinoembryonic antigen (CEA) have been extensively studied in patients with lung cancer, however, their sensitivity and specificity have usually reported as low (***Mizushima,*** 1991).

Few reports deal with a combined evaluation of various tumor markers in lung cancer diagnosis (***Ebert et al.,*** 1994). However, none of the serum components proposed seems to be sensitive or specific enough to detect early disease (***Bates,*** 1991).

This work is an effort to evaluate whether the combined determinations of CYFRA 21-1 and CEA enhance their diagnostic accuracy, also assessing the behaviour and comparing the sensitivity of both markers in patients with small cell lung cancer and non-small cell lung cancer.