

A Study of Paraneoplastic Syndrome Patterns in Patients with Bronchogenic Carcinoma

Vurgese Thomas Abraham, MD, MRCP (UK)* Bahl Sunil Radhakrishna, MBBS, MD**
Mapkar Osman Abdulwahab, MBBS, MD*

Background: Paraneoplastic syndromes, which are the distant effect of underlying carcinoma, which can present early, well before the primary lung lesion produces local symptoms and even when the tumor is undetected or very small. Paraneoplastic syndromes are common in patients with bronchogenic carcinoma. They may be the presenting finding or the first sign of recurrence.

Aims: To assess the incidence and pattern of paraneoplastic syndrome (PNS) in patients with bronchogenic carcinoma.

Settings: Peripheral Hospital in Kuwait.

Design: Retrospective study.

Methods: A retrospective study of 52 confirmed bronchogenic carcinoma patients occurring from January 2000 to June 2004 in our hospital was carried out. The Medical records of all the confirmed cases of bronchogenic carcinoma admitted between January 2000 and June 2004 were reviewed. The clinical and biochemical parameters recorded were: age, sex, underlying medical illness, presentation complete blood count, blood urea, electrolytes and serum calcium levels, and appropriate hormone levels where indicated. The localization of the tumors was done by chest x-ray and CT scan. Tissue biopsy was obtained by bronchoscopy or under CT scan guidance and histopathological examination of the specimen was carried out. The type and pattern of PNS if any was noted. These parameters were entered into a database and later analyzed.

Statistical analysis used: The data management and statistical package used was Epi Info version 6 provided readily by the CDC (Centre for Disease Control) Bethesda USA.

Results: Forty-nine patients were male and 3 were females. All were heavy smokers or ex-smokers. The histological types were 12 (22.4%) small cell carcinoma and 40 (67.6%) non-small carcinoma. The mean age 67.46 ± 12.15 years. Associated illness found was diabetes mellitus (DM) – 24 (46%), hypertension - 33 (63.6%), and chronic obstructive pulmonary disease (COPD) - 14 (27%). Almost all the patients presented with cough – 52 (100 %), shortness of breath (SOB) - 51 (99%), haemoptysis – 22 (42%), pleural pain – 16 (31%) and fever - 22 (42%) and weight

loss – 39 (75%). The PNS found were: Hypercalcemia – 22 (42%), thrombocytosis – 5 (9.6%), limbic encephalitis – 3 (5.8%), SIADH – 3 (5.8%), peripheral neuropathy – 2 (3.8%), GBS – 1 (1.9%), pancytopenia – 3 (5.8%). There was no case with ACTH secretion or Lambert-Eaton syndrome.

Conclusions: Hypercalcemia, thrombocytosis, SIADH, pancytopenia, limbic encephalitis and other unexplained neurological problems occurring in the middle aged or elderly smokers should arouse the suspicion of an occult bronchogenic carcinoma.