BRONCHIAL CARCINOMA WITH HEMILATERAL HYPERHIDROSIS

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SYNOPSIS

A case of bronchial carcinoma with hemilateral hyperhidrosis in a 60-year-old Chinese man is reported.

INTRODUCTION

Localised hyperhidrosis due to irritation of sudomotor sympathetic fibres is a rare complication of bronchial carcinoma. Unilateral thoracic hyperhidrosis due to bronchial carcinoma with pleural spread was recently reported by Middleton (1976). A case of bronchial carcinoma in which hemilateral hyperhidrosis was a prominent terminal feature is reported.

CASE REPORT

A 60-year-old Chinese man was first seen in April 1977 with a four week history of cough productive of whitish sputum and breathlessness on exertion. He was a heavy cigarette smoker. The main abnormal physical findings were signs of a moderate sized right pleural effusion, confirmed by a chest radiograph. Thoracocentesis revealed a hemorrhagic pleural fluid in which no malignant cells were seen. A pleural biopsy showed deposits of malignant cells consistent with a bronchial carcinoma. Pleural aspiration was repreated and 10 mg. of mustine hydrochloride was instilled into the pleural cavity.

He remained fairly well except for complaints of cough and right-sided chest pain. He was readmitted to hospital three months later because of increasing breathlessness due to reaccumulation of fluid in the right pleural cavity. Pleural aspiration was repeated with some relief of his symptoms. A chest radiograph showed an opacity spreading from the right hilar region; the left lung was normal. He complained of excessive sweating which was confined to the left side of his forehead and face, body and the left upper and lower limbs. This came on in paroxysms with the sweating stopping abruptly at the midline. He died a few days later. Permission for necropsy was refused.

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DISCUSSION

This case presents similar features to the one described by Middleton (1976) except the hyperhidrosis is contralateral to the side of the bronchial carcinoma and affected the whole left side of the body. Although the chest radiograph did not reveal any lesion in the left hemithorax, secondary spread to the left thoracic sympathetic chain could have occurred. It has been shown that stimulation of a single anterior nerve root generally results in widespread sympathetic effects over the distribution of at least five or six sympathetic ganglia (Pool, 1956). This phenomenon could account for the hemilateral hyperhidrosis. Another possible explanation is metastatic involvement and stimulation of the left preoptic area immediately anterior to the hypothalamus. Such a lesion is known to cause hyperhidrosis, with the impulses being transmitted in the autonomic pathways to the spinal cord and thence through the sympathetic outflow to the skin.

REFERENCES

1. Middleton, W.G.: Bronchial carcinoma with pleural spread causing unilateral thoracic hyperhidrosis. Brit. Med. J. 2, 563, 1976.
2. Pool, J.L.: Unilateral thoracic hyperhidrosis caused by osteoma of the tenth dorsal vertebra. Journal of Neurosurgery 13, 111, 1956.