CO-EXISTENT PULMONARY TUBERCULOSIS
AND BRONCHOGENIC CARCINOMA

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Introduction
Pulmonary tuberculosis is being diagnosed more often in the later decades of life, namely, those in which bronchogenic carcinoma is known to be more common. The association of these two diseases is, in fact, being found with increasing frequency and is illustrated by the following case report.

Case Report
The patient first attended East Ham Chest Clinic in September 1953, when he was 68 years old. He complained of persistent cough for one year, which had been worse for the previous two months. It was associated with about an egg-cupful of whitish sputum daily. He had experienced night sweats for one week, during which he complained of a pleuritic type of pain in the right chest.

There was no relevant family history, and the only relevant detail in his previous medical history was that he had been graded B2 in 1914 on account of a 'shadow on the lung.'

On examination his general condition was poor; he was afebrile; his fingers were not clubbed. Physical examination of the chest showed it to be barrel-shaped with poor movement. The percussion note was impaired over the R.U.L. where medium crepitations were audible. Radiology of the chest showed the lungs to be emphysematous, and in addition there was infiltration and cavitation in the R.U.L. (Fig. 1). The sputum was found to contain A.F.B.; the E.S.R. was 37mm./hr.

A diagnosis of pulmonary tuberculosis was made and a course of chemotherapy instituted. The response was good. Two months later the patient felt considerably better; there were no abnormal signs in the chest and there was definite

![Fig. 1](http://pmj.bmj.com)

![Fig. 2](http://pmj.bmj.com)
radiological evidence of resolution of the pulmonary lesion. Chemotherapy was continued, and he also received a period of in-patient treatment. He remained in good health. In April 1954, the sputum was found to contain A.F.B. on culture.

In May 1954, the patient complained of loss of weight, weakness and lack of energy. His appetite was poor and he felt generally unwell. Physical examination of the chest revealed the presence of definite signs over the right upper lobe — namely, impaired percussion note and tubular breathing. Radiography showed complete atelectasis of the R.U.L. (Fig. 2), associated with a rounded opacity at the right hilum which was clearly seen on tomography (Fig. 3).

He was bronchoscoped in July 1954, when a neoplasm was found obstructing the R.U.L. orifice, and the biopsy of this showed a 'necrotic undifferentiated carcinoma.'

The patient's general condition steadily deteriorated and he died in June 1955, one year after the diagnosis of carcinoma had first been made. Treatment during this period was purely symptomatic.

A post mortem showed a large necrotic neoplasm arising from the R.U.L. bronchus near the carina. The apex of the right lung was adherent to the chest wall and numerous small cavities were present. The remaining lung was congested and showed the changes of hypostatic pneumonia (Fig. 4).

Histological examination of the neoplasm showed it to be a squamous celled carcinoma with keratinization and epithelial pearl formation.

The tuberculous nature of the cavitated area was also confirmed histologically.

Comment

In the above case the presence of chronic fibrocaseous pulmonary tuberculosis was established prior to the appearance of a bronchogenic carcinoma at the same site. Divergent views have been expressed in the past about the association of these two conditions. Heider (1866) thought they were different manifestations of the same disease and MacConkie (1908) thought the tubercle bacillus was the cause of both conditions. Conversely many writers have been convinced of
their mutual antagonism and on this basis Pearl (1929) suggested tuberculin as the treatment of bronchogenic carcinoma. There are several references in the literature to the association of the two conditions (Couts, 1951; Helm and Moon, 1952; Ellman, 1953).

There is a significant difference in both prognosis and management, and the failure to recognize the presence of active pulmonary tuberculosis in association with carcinoma may produce a most unfavourable effect in the former condition. This applies especially to those patients subjected to radiotherapy, and the only effective treatment is resection of the lobe or lung affected (Ellman, 1953).

Summary
A case of co-existent pulmonary tuberculosis and bronchogenic carcinoma has been reported. The combination is being diagnosed with increasing frequency and the importance of accurate diagnosis has been stressed.

Acknowledgment
I should like to extend my most grateful thanks to Dr. Philip Ellman for permission to publish details of this case and for his help and advice in this connection.

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MODERN ACTINOTHERAPY

This book is an up-to-date review of the literature of ultraviolet and infra-red radiation.
An outline of the history of heliotherapy and ultraviolet therapy is given. The physics and physiological effects are discussed and the clinical applications of ultraviolet and infra-red radiation to dermatology, rheumatology, paediatrics and diagnosis described, with quotations from the literature and many useful references.

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Dr. Cyriax's well-known book which was originally published in 1944 under the title 'Deep Massage and Manipulation Illustrated' has appeared in its fifth edition. The layout of the book with its clear and concise descriptions of technique, including exact site for massage, positioning of patient and physiotherapist, duration and frequency of treatment remains unchanged. It has been amplified to include a chapter on the local injection of hydrocortisone, one descriptive of the essential forms of massage students must learn, one on massage in plastic surgery and finally one on a modified form of the Bisgaard treatment of varicose ulcers.

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E.N.