Carcinoma of lung and bronchus

Incidence in a practice over four years

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Wallasey

DURING the years 1961–64 inclusive 12 cases of lung cancers were diagnosed in this average size, single-handed practice. According to Fry, every general practitioner expects to discover one new case every year. Merseyside shares with some industrial areas an incidence above the national average (see National Atlas of Disease Mortality, 1963, by Dr G. M. Howe).

TABLE I

MORTALITY RATES FOR CARCINOMA

Year	*Wallasey*		*Practice size*	*Cases*	*Practice ratio*
	Population	*Death ratio*			
1961	103,240	60 1 : 1700	2,300	3	1 : 800
1962	103,490	72 1 : 1440	2,300	2	1 : 1000
1963	103,370	75 1 : 1400	2,350	3	1 : 800
1964	103,320	67 1 : 1600	2,400	4	1 : 600

The object of this paper is to present brief case histories, state essential points in modes of presentation, and thus try to arrive at an early diagnosis. There is need for a more aggressive attitude towards symptoms and signs with respect to this dread disease.

While there is no clear symptom complex or distinctive physical sign, it is pointless waiting for the typical textbook symptoms such as enlarged liver, weight loss, cerebral metastasis or pulmonary osteoarthropathy.

Case 1. Female aged 75 complained of a soreness over the right tibia for two weeks. Radiography showed osteoporosis of upper third of the bone, suggesting a sequestrum of a secondary deposit. Subsequent x-ray of her chest showed a neoplasm of left upper lobe, which was treated by supra-voltage therapy. The patient had smoked 20 cigarettes daily for many years.

Case 2. Was aged 65 when the disease was discovered in 1955. A chief steward on a transatlantic liner, he drank heavily and smoked a fair amount. Two weeks before being x-rayed he had pink stained sputum. The findings were "Shadowing in axillary segment of right upper lobe with right hilar enlargement, the appearances being suspicious of neoplasm". Two months later a right pneumonectomy was done. Histology showed a squamous-cell lesion with no glandular involvement. The patient did well, put on weight and, up to the time of his death in 1962 from cirrhosis of the liver, there was no evidence of recurrence.

Case 3. A tough 81-year-old man who had a duodenal ulcer had smoked 30 cigarettes per day all his life. In 1963 pneumonia was diagnosed in the basal segments of his left lung. The patient put on weight, but his cough got worse, as did his right upper lobe shadowing, which was eventually diagnosed as malignant. He succumbed five months later to a bronchopneumonia.

Case 4. A 62-year-old hairdresser complained of a cough of 12-months' duration, tightness across the chest and fullness of the face. Prominent veins were seen in right upper chest and neck. Though no localizing signs were found on clinical examination, x-rays showed a mass in the right upper mediastinum with right hilar involvement. Two weeks afterwards he had pains in the right shoulder. He was treated with deep x-rays, with marked relief of the venous enlargement in superior vena cava

territory, and he went back to work for a time. The right hilar shadowing persisted, however, and there was some right paratracheal shadowing.

Six months after the lesion was found he complained of occipital headaches, deafness in left ear, unsteadiness and hesitancy of speech. From the clinical features, acute left cerebellar degeneration was diagnosed, and he died in two weeks. He smoked 20 to 30 cigarettes daily for 20 years.

Case 5. A retired 70-year-old seaman who was always a heavy smoker was admitted to the local hospital with chronic bronchitis and congestive cardiac failure. There, consolidation was found in the left lower lobe. After some delay and uncertainty a left lower lobectomy was performed. A stormy convalescence followed. The growth was a well-differentiated adenocarcinoma. For the next six months he kept reasonably well, but his congestive failure returned. He complained bitterly of pain in his knees, spine and hips. There was a good deal of osteoarthritis which could have accounted for the pain which later spread to the ribs. He became grossly oedematous and succumbed seven months after his operation. An autopsy examination showed metastasis in ribs and spine, yet x-rays of the same areas were negative two months previously.

Case 6. A moderate smoker with bronchiectasis in right middle lobe was 73 when suspicions were aroused after a haemoptysis in 1963. Pancoast's syndrome was suspected but radiology showed chronic bronchitis with emphysema. He was referred to an orthopaedic surgeon owing to severe pains in his right shoulder and posterior neck area as well as in the right pectoral region. A month later a chest physician found shadowing in right upper lobe due to carcinoma involving ribs 4 or 5 postero-laterally. Palliative megavoltage therapy was given, but he succumbed two months later to a coronary thrombosis. He was the only patient who suspected he had a lung cancer—even before it was proved.

Case 7. A salesman-driver, aged 61, smoked 60 cigarettes daily for 40 years. He was found to have chronic bronchitis and emphysema with consolidation at right base and right mid-zone fibrosis. The pneumonia cleared up, but later he presented with a cough of three months' duration. Radiography showed shadowing in left upper lobe with fibrosis elsewhere. The shadowing did not change and the patient lost weight. Bronchoscopy revealed a carcinoma in left upper lobe. Left pneumonectomy was done. Histology showed a squamous-cell lesion with no glandular involvement.

Since his operation he has put on weight and no recurrences have been found to date. A tachycardia of 120 remains unaltered. This patient has survived seven years, the longest in the series.

Case 8. A 66-year-old sea captain who had smoked 60 cigarettes a day since the 1939–45 war developed chronic bronchitis and emphysema with bronchiectasis in the right upper lobe in 1958. Follow-up at the chest clinic showed he had been holding his own, but weight loss occurred and carcinoma was suspected but not found. Right heart failure supervened.

Later he had a haemoptysis and atrial fibrillation supervened. Carcinoma was confirmed in the right lower lobe. Because of the congestive heart failure this was not dealt with. During the next 12 months he had repeated haemorrhages, and when he finally succumbed the whole right lung was involved.

Case 9. A 70-year-old seaman, who had no significant past history, was first seen with consolidation of the right upper lobe and a liver enlarged to three fingers. He got gradually weaker and had a haemoptysis at the end of one month. Radiology showed a large neoplasm in the right upper lobe. Because of his age nothing was done, and he went downhill, dying within three months of the diagnosis.

Case 10. A frail lady of 67 from Yorkshire, who was a non-smoker, had been complaining of a cough for seven years, and had recently lost a lot of weight. Chest x-ray showed a rounded opacity in the left lower lobe with enlargement of left hilum. Within two months the liver enlarged to two fingers. She became confused and died within two and a half months.

Case 11. A flour-packer, aged 59, presented with chronic bronchitis and emphysema, osteoarthritis of the lumbar spine and right hip, and later became bronchospastic. He had to retire, and one month later his breathing became more difficult. X-rays showed basal congestion.

He was seen by an orthopaedic surgeon, because of what was thought to be osteoarthritis of left thigh, but had to be admitted to the chest hospital, where an enlarged right hilum was found. Bronchoscopy showed a bulge in wall of right main bronchus. A biopsy confirmed malignancy.

He had megavoltage therapy, and one month later he complained of severe backache and left hip pains. He was found to have a large destructive lesion in the left femoral shaft. A single palliative dose of x-rays helped, but his whole left leg became oedematous, and he finally died six months after his haemoptysis.

Case 12. A man of 66 who had been smoking 15 to 20 cigarettes per day for 30 years was found to have osteoarthritis of the lumbar and cervical spine in 1960. He had several chest x-rays. His right shoulder and neck pains were due to osteoarthritis of cervical 5–7, for which a cervical collar gave relief. He complained of loss of appetite attributed to his long-standing duodenal ulcer. Two months later he complained bitterly of the pains in the right chest and right shoulder which he had had for 12 months.

A consultant physician found right Horner's syndrome with wasting of the small muscles of right

hand. An x-ray of the chest showed a carcinoma of right lung apex with rib erosion. Deep x-ray was applied to the Pancoast lesion, but he died three and a half months later.

Comment

Looking for weight loss and extra pulmonary involvement is not much help. When these are found nothing much can be done. Osteoarthritis is a common disease, and three in the series had been referred to and treated by orthopaedic surgeons before an active lung lesion was found.

Altogether four had pulmonary osteoarthopathy, and one presented a tibial deposit.

Site. Eight had right-sided and four left-sided lesions, this being in accord with Friend quoted by Aird (*Companion to Surgical Studies*, p. 472, 1949). Naturally in such a small series the figures are not of great significance.

Histology. This was obtained in four. Two were squamous-cell carcinoma—one lived seven years and died of another disease, and one is still alive after seven years. The two with adenocarcinoma died within six months.

Age and survival. Average age of onset was 68, an age at which thoracic surgery is considered unwise. The average survival time was five to six months.

Early diagnosis. A major problem in medicine today is that of early diagnosis. This is difficult and, unless the doctor is always suspicious, diagnosis will not be made at an earlier stage.

All the patients except one were heavy smokers. Five presented with haemoptysis. This complaint was considered to demand immediate investigation. Bailey and Love state that ten per cent present in this way (*Short practice of surgery*, tenth edition p.868, 1956).

Environmental pollution with resistant microbes

The do-no-harm doctrine, fundamental to most physicians, is often unwittingly relegated to secondary status by the understandable human desire to "do something". The unfortunate consequences of this reversal of priorities are nowhere better catalogued than in the chronicles of antibiotic usage, where three decades of secondary catastrophes are recorded. The phenomena resulting from the toxicity and hypersensivity induced by these miracle drugs exhibit their mark in every bodily organ, cell and orifice. To wager today that any new antimicrobial agent will be completely safe, regardless of its alchemy, is to ignore the laws which make paupers of chronic roulette enthusiasts.

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