RESPIRATORY DISEASES

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Preface

This book is designed principally for postgraduates wishing to learn something of chest disease and as a modest reference book for general physicians or others. It is not primarily an undergraduate book but we hope the occasional enthusiastic undergraduate may dip into it in search of more detail on a particular theme.

We are well aware that no one, certainly not ourselves, can know all about respiratory disease. The book is founded on our own clinical practice, on many years' experience of teaching undergraduates and postgraduates and on an inevitably limited study of the literature. As the book purports to be in English we have mainly confined ourselves to references in that language. On the more important themes we have given only a few key foreign references, if any at all, but we have been a little more ecumenical in the case of some of the more exotic diseases.

In order to enable us to deal with certain important subjects more fully, and yet to keep the book within a reasonable compass and within a reasonable price, we have severely curtailed the number of x-rays included, though in places we have thought it useful to elaborate the text with diagrams or drawings. The reader in search of illustrative x-rays is recommended to consult radiological textbooks, such as Le Roux B. T. and Dodds T. C. (1964) *A Portfolio of Chest Radiographs*, Edinburgh: Livingstone; Le Roux B. T. and Dodds T. C. (1968) *A Second Portfolio of Chest Radiographs*, Edinburgh: Livingstone; Simon G. (1962) *The Principles of Chest X-ray Diagnosis*, 2nd Edition, London: Butterworth or Shanks S. C. and Kerley P. eds (1962) *A Textbook of X-ray Diagnosis by British Authors*, vol. 2, 3rd Edition, London: Lewis.

A number of colleagues have been kind enough to read individual chapters. Their constructive criticism has been of great value to us, although of course we alone are responsible for any residual errors. For this help our sincere thanks are due to Professor A. L. Cochrane, Dr. Charles Fletcher, Dr. Wallace Fox, Professor L. P. Garrod, Dr. I. W. B. Grant, Dr. N. W. Horne, Mr. R. J. M. McCormack, Dr. G. J. R. McHardy, Dr. A. T. Wallace and Dr. F. J. Wright. We are most grateful to Dr. Eileen Crofton for providing much epidemiological information and for reading the proofs, and to both our wives for tolerating the distortions of family life implicit in authorship. We would also like to thank our junior colleagues not only for all they have taught us but also for inevitably taking an increased share of the routine work while we have been engaged in writing the book.

We cannot too greatly praise Miss May Corkey and Miss Margaret Ballantine for their skill in typing, for their disciplined marshalling of our disordered references into orderly ranks, for their brilliant interpretation of scribbled drafts which must sometimes have been as challenging as Etruscan, and for facing all these exacting tasks with unfailing intelligence and good humour.

We would also like to thank Mr. Per Saugman, Managing Director of Blackwell Scientific Publications, who cajoled us into writing this book in the first place and Mr. Nigel Palmer, Manager of their Edinburgh office, for patiently nursing a pair of tyros through the vicissitudes of publication.

Some Symbols used in Respiratory Physiology

PRIMARY SYMBOLS

V	Volume of gas
$\dot{V}$	Volume of gas per unit time
Q	Volume of blood
$\dot{Q}$	Volume of blood per unit time
P	Pressure
S	Saturation
RQ	Respiratory quotient
R	Respiratory exchange ratio (under steady state conditions = RQ)
D	Diffusing capacity
T	Transfer factor

SUFFIXES

E	Expired gas
A	Alveolar gas
T	Tidal gas
D	Deadspace
a	Arterial blood
v	Venous blood
c	Capillary blood
L	Lung

Examples of use of symbols and suffixes

Pa,O_2	Partial pressure of oxygen in arterial blood
P_A,O_2	Partial pressure of oxygen in alveolar gas
$\dot{V}_A$	Alveolar ventilation per unit time
V_D	Volume of deadspace gas
V_T	Tidal volume
D_L	Diffusing capacity of the lung

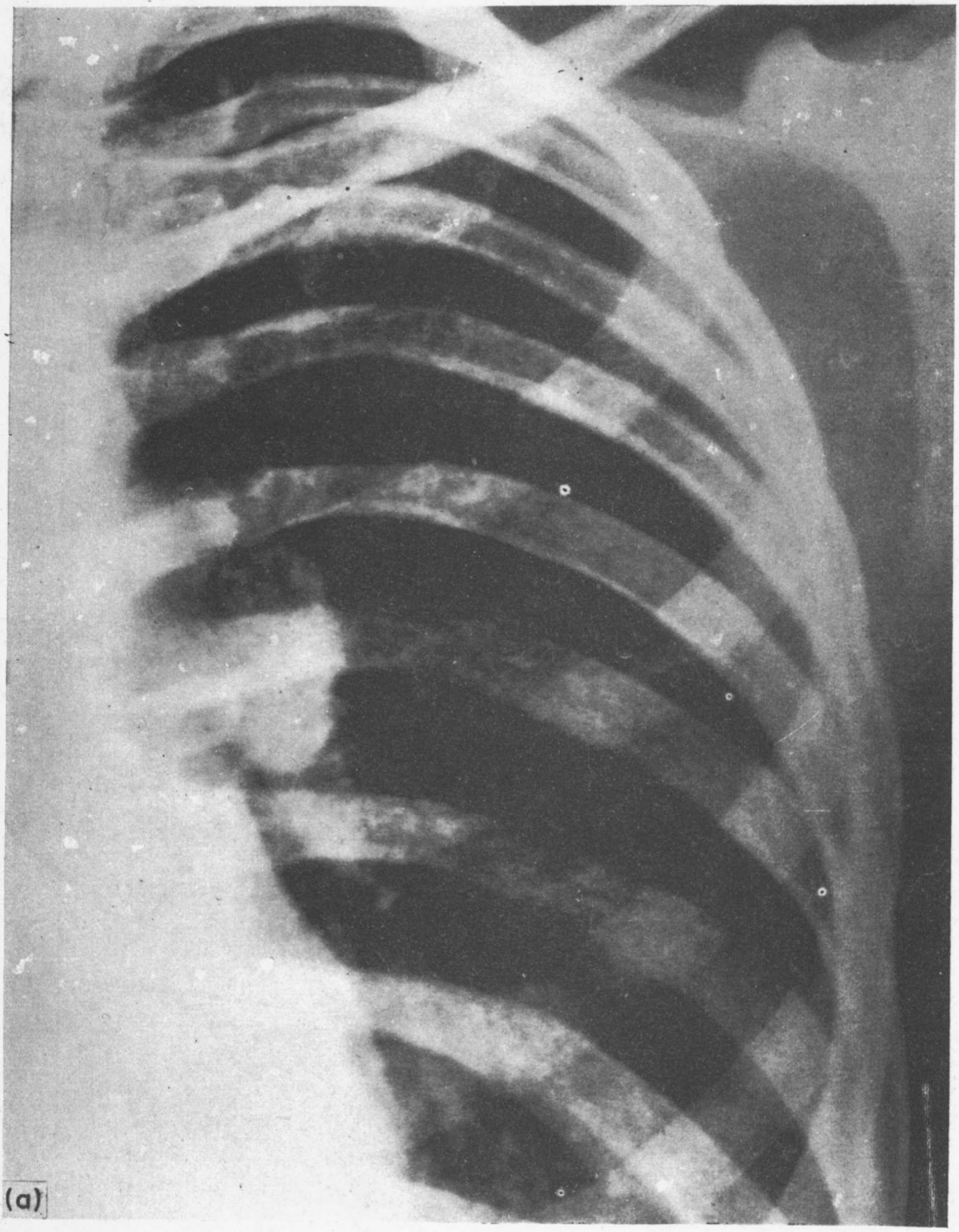

PLATE 12.1. (a). Part of the left upper zone of an x-ray of the chest of a 15-year-old-girl admitted with tuberculous meningitis and miliary tuberculosis. The faintly mottled shadows in the interspaces are just visible. There is an enlarged hilar lymph node. This contrasts with a film (b) taken 4 months later after the lesions have largely cleared under chemotherapy.

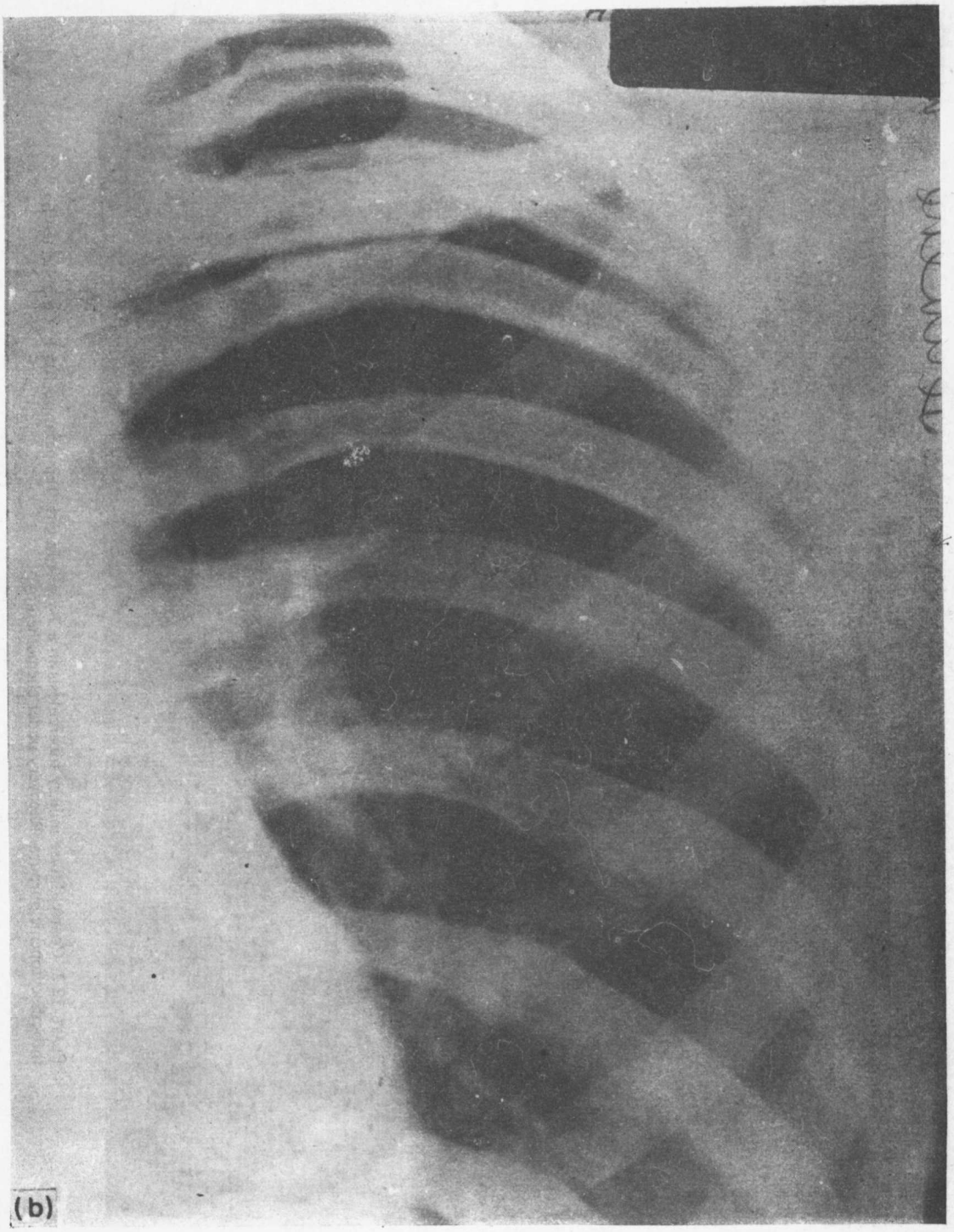

PLATE 12.1.

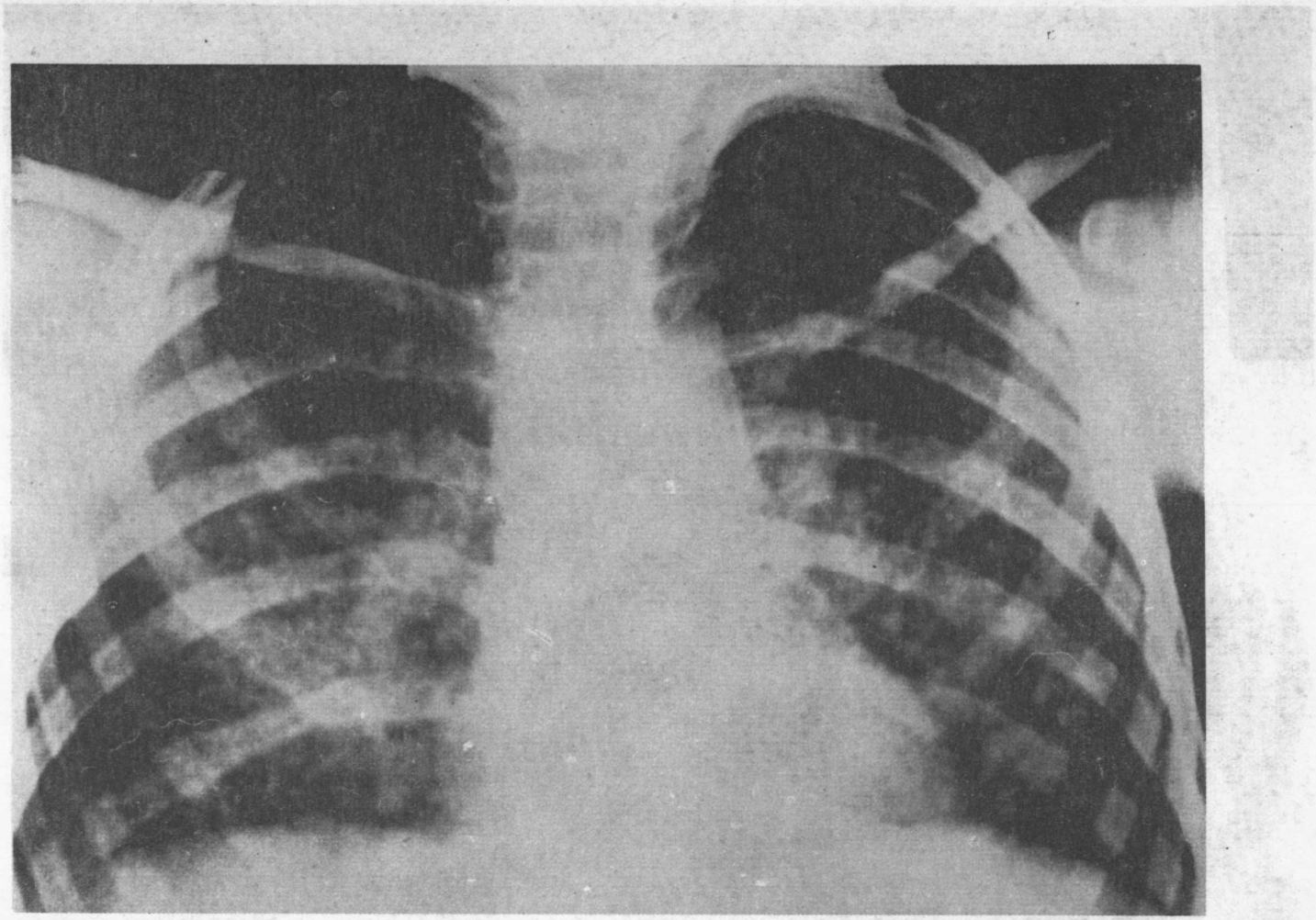

PLATE 12.2. Coarse diffuse miliary tuberculosis in a 7-year-old-girl. Temperature 105°F. Complicated by thrombocytopenic purpura. Recovery under chemotherapy.

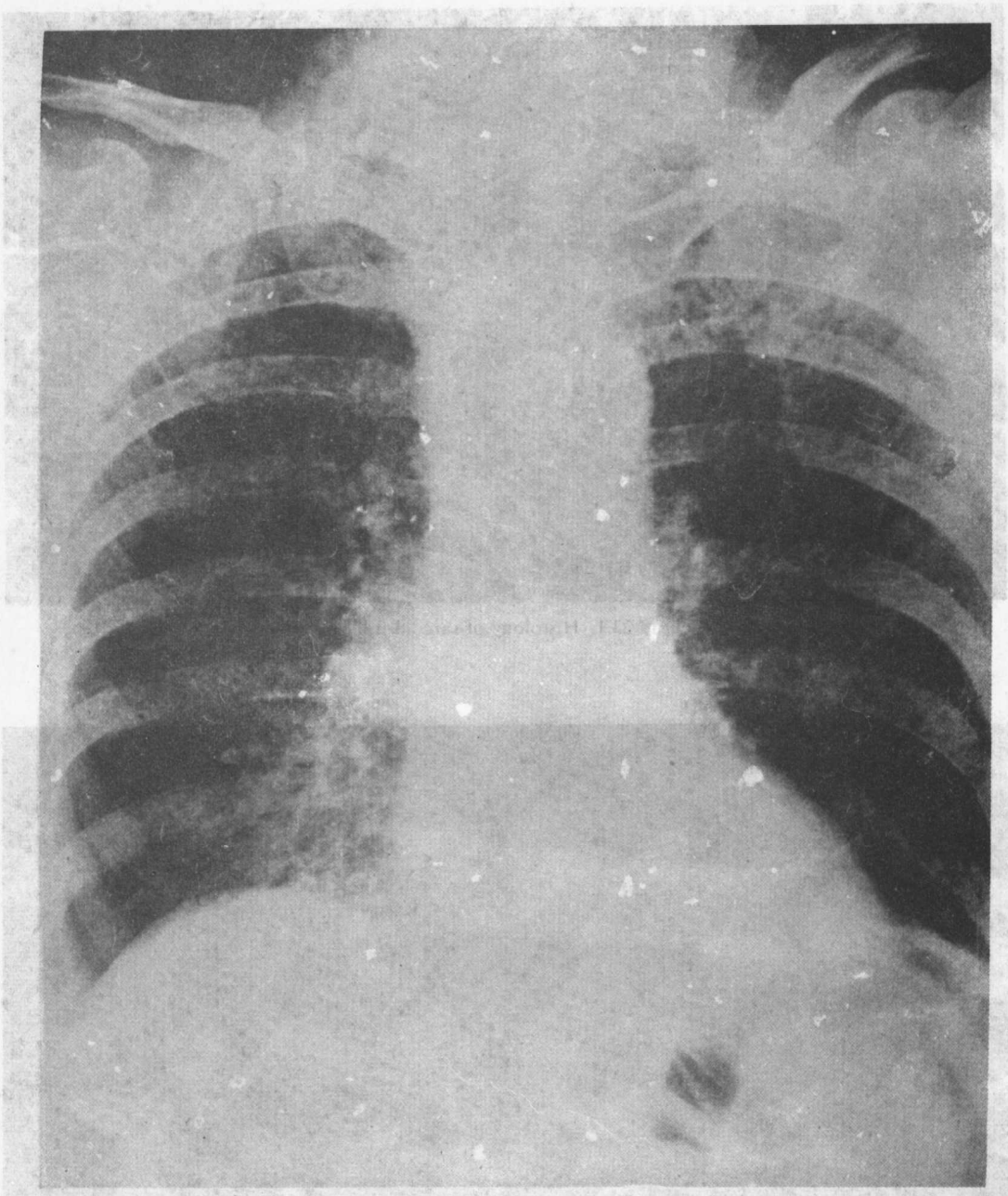

PLATE 12.3. Fine diffuse miliary tuberculosis in a 74-year-old-woman presenting with pyrexia. Complicated by severe hypokalaemia during 3rd month of treatment. Eventual recovery.

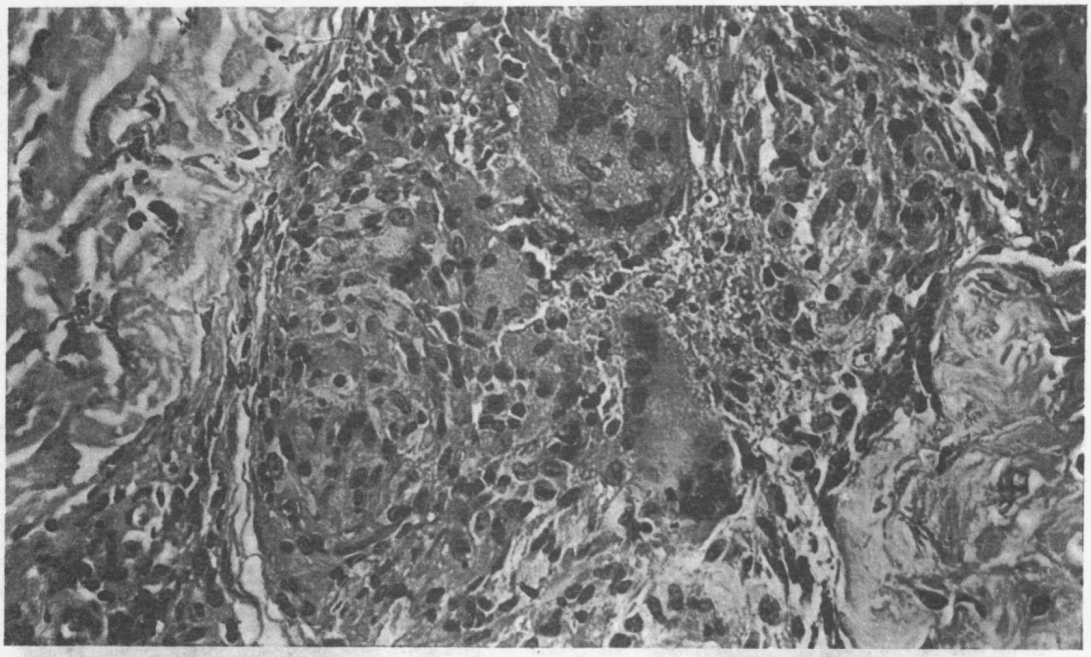

PLATE 23.1. Histology of sarcoid follicle.

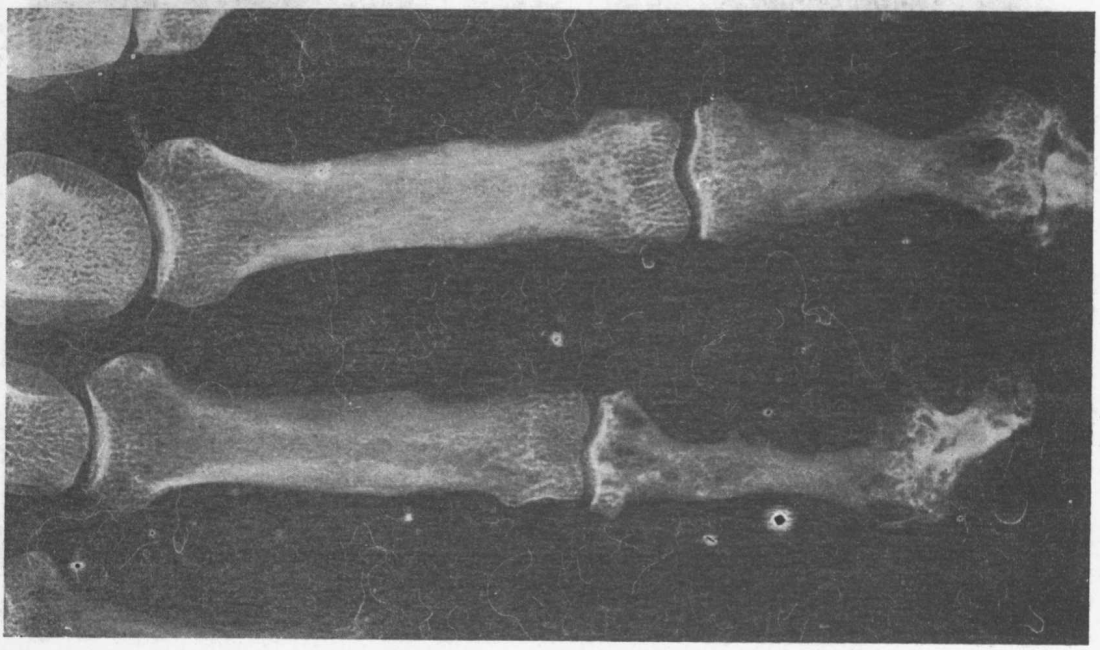

PLATE 23.2. Sarcoidosis. Cystic osteitis (note soft tissue swelling.)

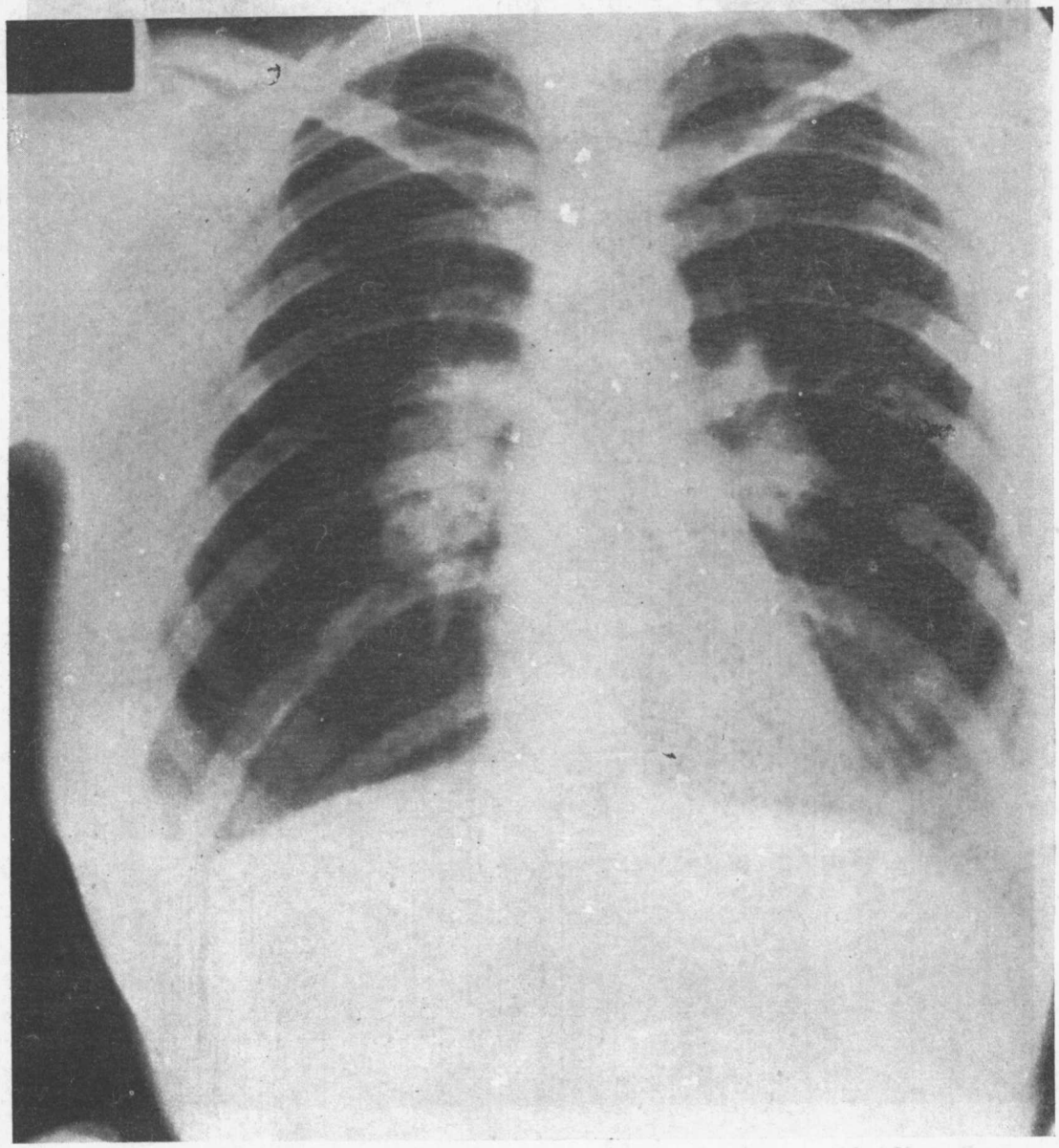

PLATE 23.3. Sarcoidosis. Bilateral hilar adenopathy.

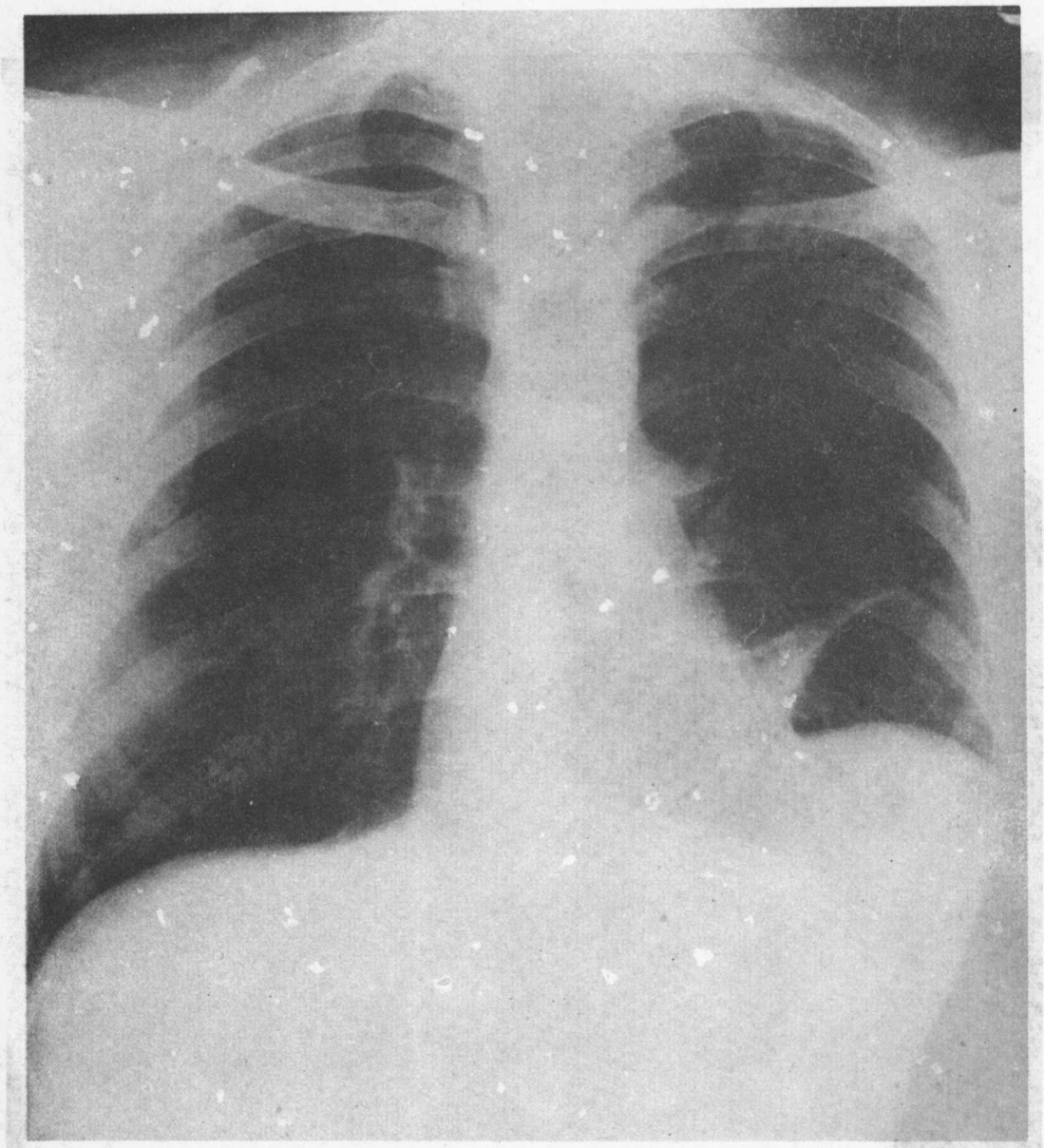

PLATE 27.1. Linear opacity of pulmonary infarction. Note elevation of left hemidiaphragm.

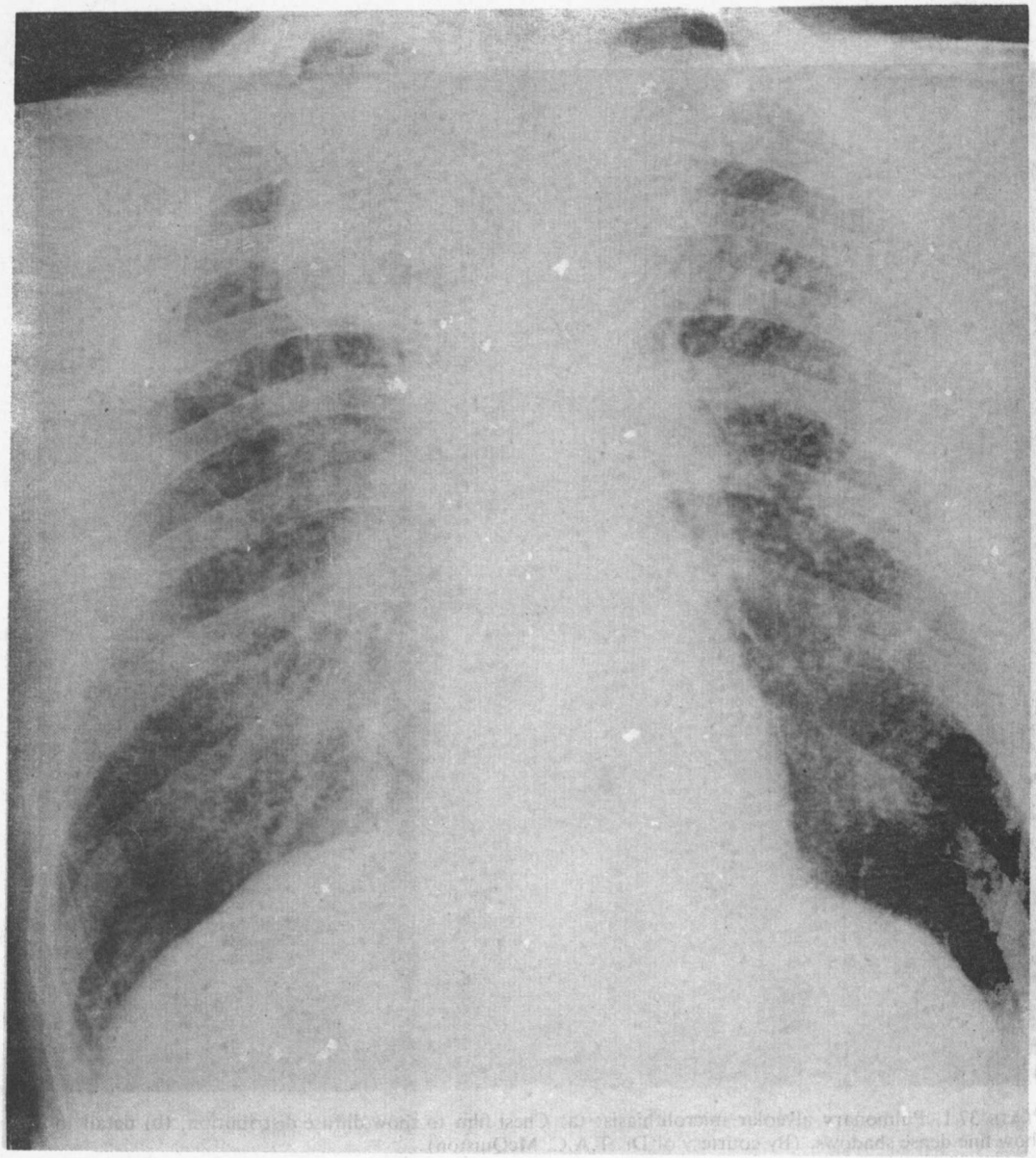

PLATE 28.1. Complicated coalworkers' pneumoconiosis. Note fibrotic masses of PMF in both upper lobes.

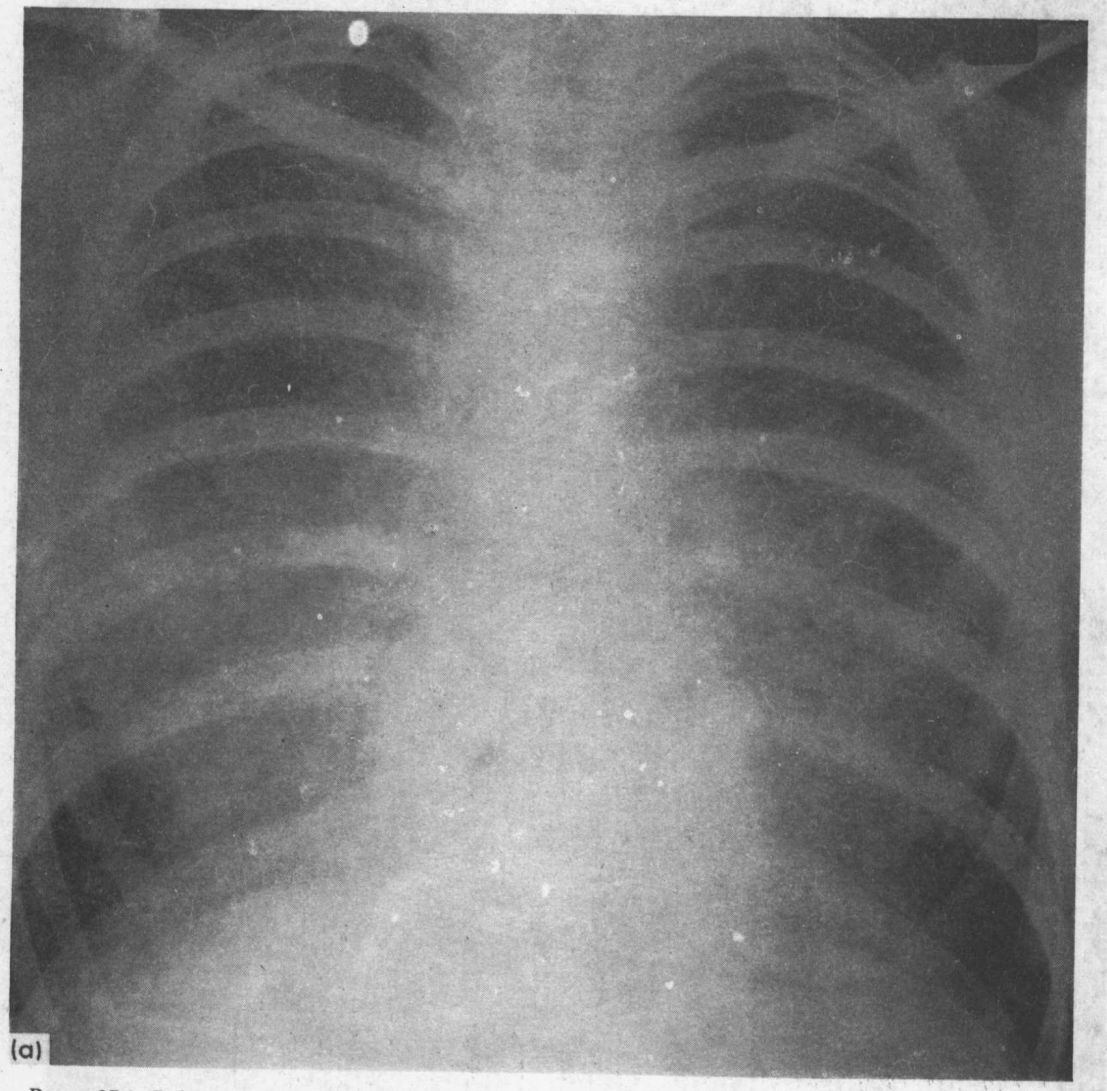

PLATE 37.1. Pulmonary alveolar microlithiasis: (a) Chest film to show diffuse distribution, (b) detail to show fine dense shadows. (By courtesy of Dr. T.A.C. McQuiston)

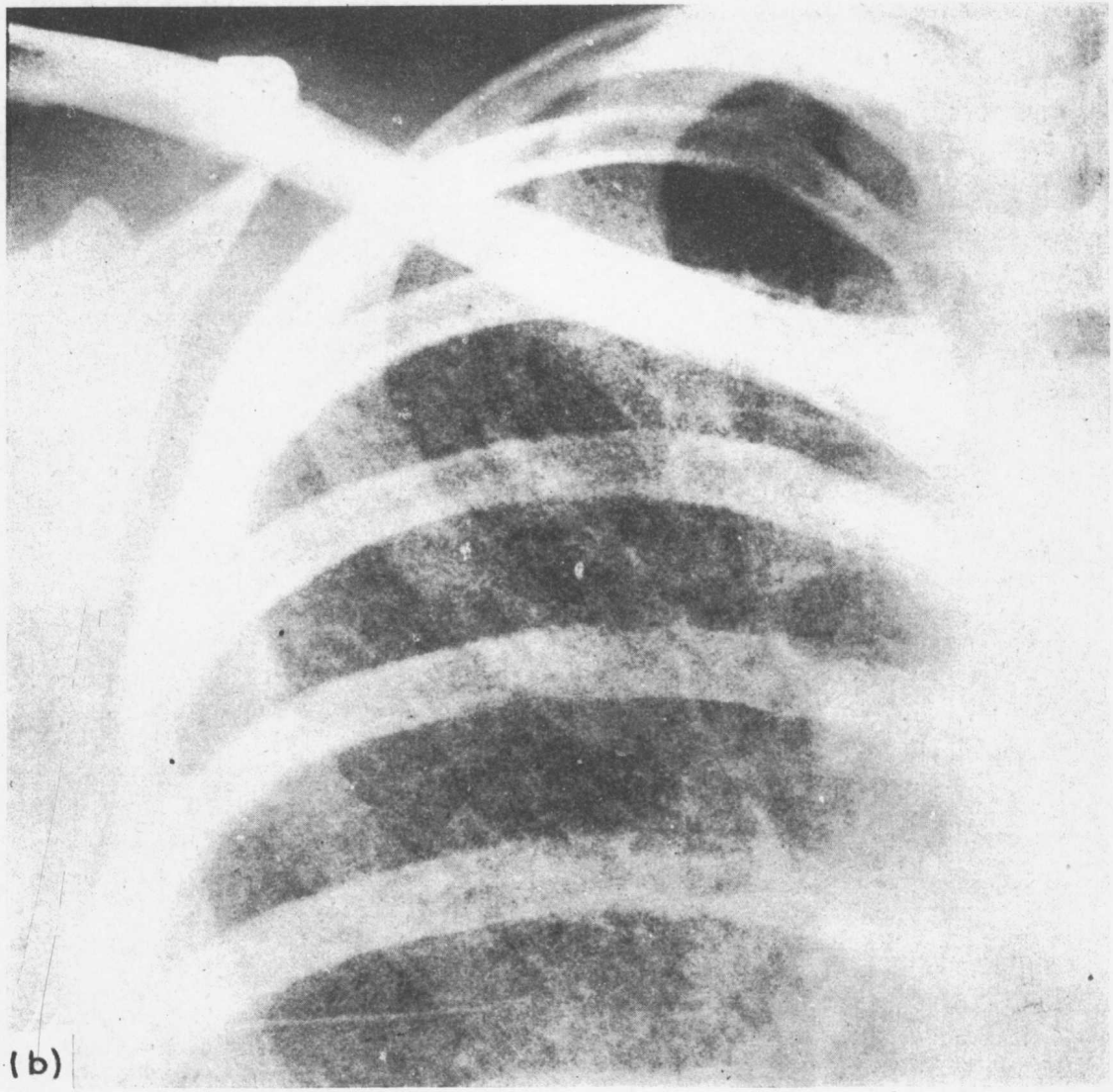

PLATE 37.1.

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