

AN UNUSUAL FORM OF RETICULATED LUNG DISEASE, PROBABLY AN UNIDENTIFIED TYPE OF PNEUMOCONIOSIS A PRELIMINARY REPORT

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In the first quarter of 1952, our attention was drawn to an unusual reticulation in chest roentgenograms of a series of patients seen in the Outpatient Department of the Tan Tock Seng Hospital. Since then, many similar cases are regularly seen, and a good number appear to come from an older group of patients, many of whom are reported to be chronic opium addicts.

The following are case reports of two of the earliest patients seen. The radiographic features may be taken as representative of this group.

Case 1. N.A.T., Chinese, Male 44, was seen on 20.2.52, with a history of cough and weakness of legs for 4 years.

A chest film (Figs. 1 & 2) shows some pulmonary emphysema and a fibrocalcified tuberculous scar in the right upper lung. The striking feature is a general increase of lung markings on both sides, but more pronounced in the lower zones, and associated with fine indefinite stipplings with a dusty, powdery or radiopaque veil-like haze lending a ground-glass effect to the overall picture. There are also many finer markings or reticulations, again mainly basal. Some of these appear to be short lines running horizontally outwards, and other are interlacing lines. These correspond to Kerley's (1) B & C lines respectively, and are indicative of the existence of pulmonary hypertension.

The radiologic picture is highly suggestive of some form of dust inhalation. Patient was subsequently closely questioned on this score, and he admitted having been engaged in the building of attap (palm-leaf thatched) houses for 20 years, during which time he was exposed to "very dusty" conditions. His blood counts were normal.

Case 2. W.A.C., Chinese, male aged 48, was seen on 24.3.52 complaining of cough and chest pain for 2½ years.

The chest roentgenograms (Figs. 3 & 4) shows a moderate increase of lung markings

with some indefinite mottlings, a picture not unlike that seen in eosinophilic lung. There was also a slight ground-glass haze, as well as basal striations of the B & C type of Kerley's.

Patient gave no history of exposure to dust of any kind. His blood counts were within normal limits.

DISCUSSION

The radiological findings of the above two cases is typical of the many cases that we constantly come across from time to time. As noted above, one of the cases gave a history of exposure to a dusty atmosphere while building palm-thatched houses for 20 years. However, close questioning of many other earlier cases disclosed no evidence of exposure to any form of dust whatsoever. It is possible that these two patients were opium addicts, but it was not indicated in their history. Nevertheless, the radiological appearances are highly suggestive of exposure to some form of dust, so much so that we append the provisional label of "dust inhalation" to such radiological appearances. These patients appear to be in apparently good health, except perhaps for a chief complaint of cough.

The heavy striations with reticulations seen are different from those of eosinophilic lung — this is confined by the fact that there is no blood eosinophilia in some of those cases who had had blood counts done. Some of the radiologic features can go with that of early pneumoconiosis (like quarry workers), but typical pneumoconiosis do not show ground-glass haze as seen in our cases. Reported cases of diffuse interstitial pulmonary fibrosis (the so-called Hamman-Rich Syndrome) usually show much coarser striations, with clinical manifestation of cough, progressive dyspnoea and cyanosis, thereby differing from our cases (2).

After our initial experience with the outpatient cases seen in the Tan Tock Seng Hospital, we subsequently came across several more cases showing similar radiological features in chronic opium addicts. Actually, the great majority of the cases now seen come from this

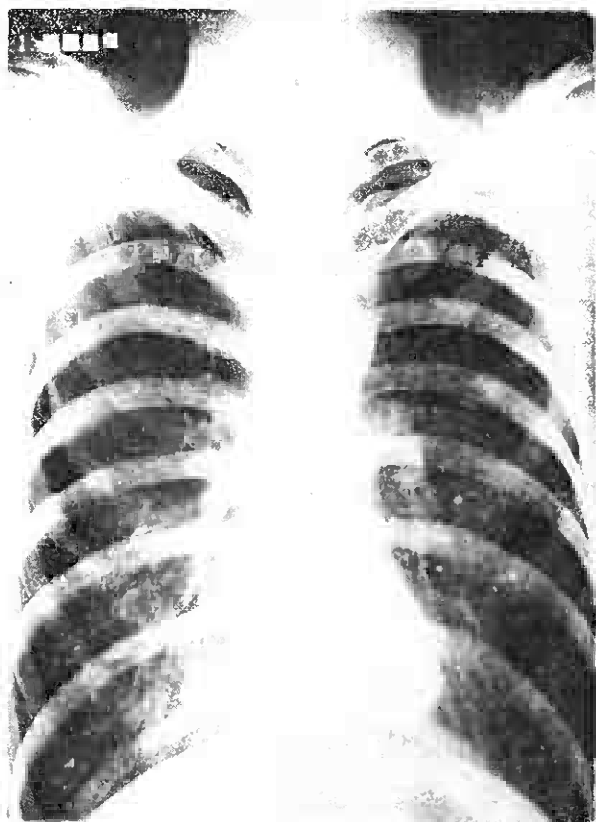


Fig. 1. Case 1. Old fibro-calcified tuberculosis of right apex. Increased lung markings with stipplings and dusty, powdery or veil-like appearance.

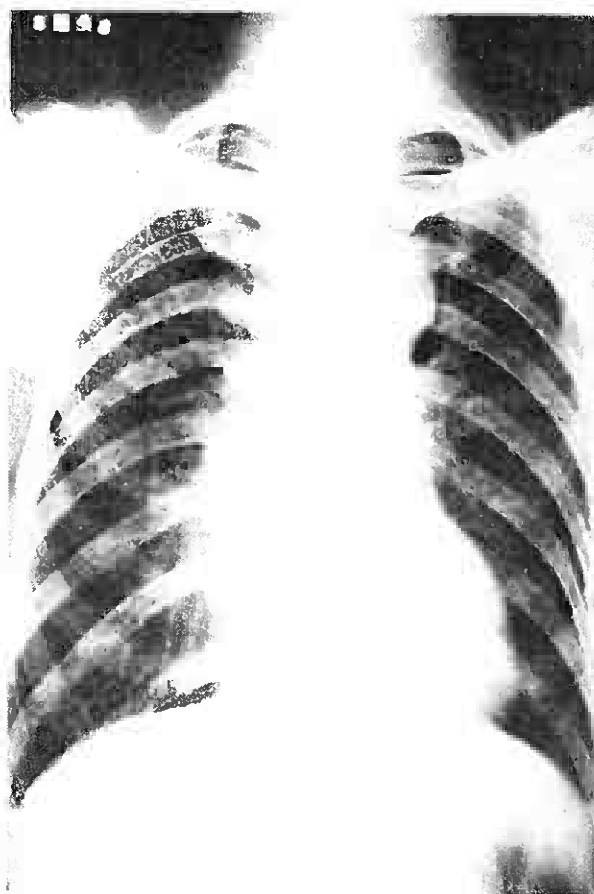


Fig. 3. Case 2. Showing increase striations and stipplings, and ground-glass hazy.

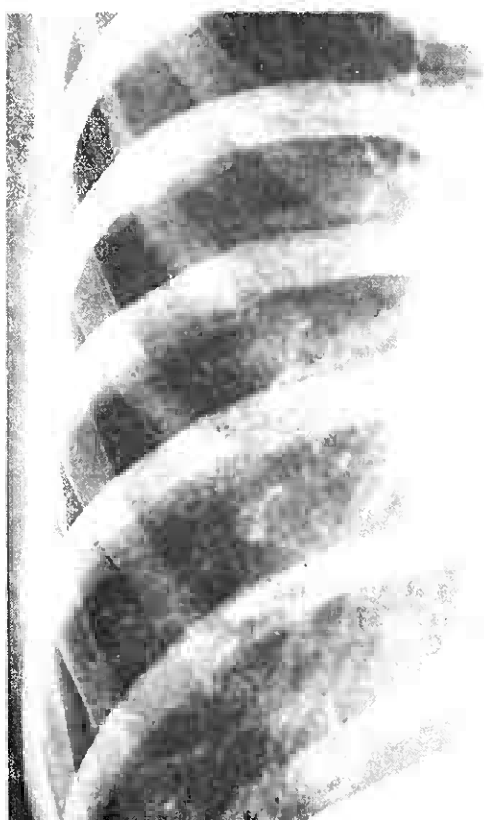


Fig. 2. Case 1. Same case as Fig. 1, with close-up view of right base showing Kerley's lines.



Fig. 4. Case 2. Same case as Fig. 3, with close-up view of right base showing Kerley's lines.

group. It has then been suggested by one of us (L.H.K.) that a possible etiologic factor might be the inhalation of noxious fumes of opium from the smoking of opium with the customary bamboo type, resulting in what might be termed as "opium lung". Most of these cases are males beyond 40 years, and a significant feature is that pulmonary tuberculosis, if present in such cases, is usually of a minimal nature.

Unfortunately, we have had no chance of making histologic studies of such cases. This report is therefore meant as a preliminary one to draw attention to this interesting lung condition, pending more detailed investigations which we hope to complete in the future.

REFERENCES

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 2. Rabin, C.B. (1958). Roentgenology of the chest, Thomas.
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