Haemoptysis and Transitory Lung-infiltrations Associated with Clonorchis Sinensis

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The purpose of this paper is to record some recent observations on haemoptysis and transitory infiltrations of the lungs in non-tuberculous patients suffering simultaneously from Clonorchis sinensis. It is assumed that both haemoptysis and infiltration of the lungs are caused by Clonorchis. In view of the widespread infestation of Far Eastern peoples with this helminth, this causal connection — if confirmed — would be of great practical significance.

Observations

During the past few years nine patients with haemoptysis were seen in Hong Kong among 2000 Chinese industrial workers, chiefly men. In the stool of all nine cases Clonorchis sinensis ova were found. The patients' ages ranged between 20 and 50. The haemoptysis occurred mostly between the months of February and October. It was always of mild character, never exceeding half a cupful, and lasted only 1—4 days. In two cases there was a recurrence of bleeding after an interval of 2 and 2½ years respectively.

The patients had no complaints apart from the haemoptysis and came to see me only because they were alarmed by the sight of the blood. It may be mentioned here that the sight of blood of any localisation and aetiology alarms the Chinese more than any other nationality I know.

All the nine cases had their lungs X-rayed repeatedly at various intervals. They were under constant medical supervision for 2—12 years. In seven cases no pathological changes were found on X-ray examination during or after the haemoptysis. However, in two cases a small transitory infiltration was seen, one during the haemoptysis and lasting twelve days, the other three years before the haemoptysis and lasting only two days after being detected. The infiltrations were unilateral, localised in the lower lobe, ill-defined, of medium density and measured about 3 × 6 cm in both cases. The temperature was always normal during the period of bleeding and infiltration.

The blood sedimentation rate was normal in the nine cases. Unfortunately no eosinophil count was done during the attacks. The sputum was repeatedly examined for Tb and Paragonimus westermannii and always found to be negative. The patients were under observation for half a year to six years after the bleeding and no signs of tuberculosis, clinical or radiological, could ever be detected.

Three characteristic cases will be described in more detail:

Case 1. Chinese man of 26. Apart from having had frequent diarrhoea had never been seriously ill. Feb. 1960: Stool examination: Clonorchis sinensis ova ++ +, no Amoeba hist-
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The other six cases of my series were all similar to the last one described in detail above; however, there was only one other case in which the haemoptysis occurred. All nine cases had in common a transitory unexplained haemoptysis with simultaneous Clonorchis infestation. Two of the nine had, in addition, a transitory infiltration of the lung, one of which occurred simultaneously with the haemoptysis.

**Comment and Discussion**

In view of the fact that tuberculosis and clonorchiasis are both extremely common in Hong Kong and South China, it is of great practical importance to find out whether haemoptysis and infiltration of the lungs — both characteristic signs of Tb — can also be produced by Clonorchis sinensis. Before discussing this question it may be of interest to consider whether the coincidence of this infestation and haemoptysis, by itself or combined with transitory infiltration of the lung, is of any statistical significance.

While earlier authors (Bell, 1912, Graeves, 1934–35) found Clonorchis ova in direct faecal smears in only 12% of Hong Kong hospital patients and in only 4.2–4.5% of the total population, Hou later (1955) reported positive findings in 46% of his cases by studying the anatomical changes of the bile ducts and the presence of Clonorchis therein.

In a more recent study (1964) however, he reported that 65.6% of the Hong Kong population were infested with Clonorchis, if children under one year of age were excluded from the calculation. When the latter age group was also included the number of positive cases was 41%. The figures were obtained from necropsy material by examination of the intestinal content and histological study of the liver in serial sections.

Much lower figures were obtained by G. B. Ono who examined the stool of 29,700 patients (one single sample) and found only 6.2% positive. However, when the stools of 450 patients were repeatedly examined by Miss M. Wong the number of positive stools rose to 14.9% of all cases tested.