Stop:Think - Tuberculosis

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'Stop:Think!' is a new series in which we aim to increase readers' awareness of less common but potentially serious respiratory disease. It will be a series of short, hopefully accessible and easily digested articles, often accompanied by a patient vignette, which we hope will prompt primary care practitioners to think 'What else might be going on here?' when caring for people with respiratory disease especially those with atypical features. We hope this will prompt early recognition of such disease thereby reducing morbidity and improving patient outcomes

We would welcome suggestions or contributions from readers for articles and will provide assistance with writing if required

Mr S, a 35 year old man consults you with a cough which has troubled him for four weeks. He gives a history of having had a 'cold' which did not go away. He is vague about the symptoms which made him think he had a cold. He feels tired but attributes this to his sleep being interrupted because of the cough. He reports no other respiratory symptoms. You decide he has an unresolved URTI ('there is a lot of it about'), reassure, and ask him to return if it does not settle

He returns three weeks later. The cough has got worse and is now productive of yellow sputum. He reports no fever, wheeze, shortness of breath although he feels more tired. On examination there is nothing to find except for a few fine crepitations at the left base. You decide to treat him with a broad spectrum antibiotic because his symptoms have deteriorated and he now has some signs in his chest.

He comes back two weeks later. He feels much worse, he has visibly lost weight. He reports fatigue, malaise, anorexia, shortness of breath on exertion and awakening at night on several occasions with night sweats. His cough is worse and he is now producing more sputum. On examination he has a temperature of 37.8ºC. Although he looks unwell he is not anaemic, he has no lymphadenopathy or organomegaly, but has more crepitations at his left base

You request a chest x-ray which is reported as having 'diffuse shadowing at the left base with hilar prominence, suggest exclude tuberculosis'. You arrange for him to be seen by the chest physicians who confirm tuberculosis

The first consultation is common, one with which every primary care clinician will deal every day in winter. The second is less common but one with which we will deal regularly. The last is thankfully uncommon but not rare - there were 6,837 cases of tuberculosis in England and Wales in 2001, the highest number of notifications in a single year since 1982 [1]. This is an average of about one case every four years for a general practitioner. Delay in diagnosis is common because of the non-specific nature of the symptoms and an associated failure to consider the diagnosis. It is therefore necessary to maintain a high index of suspicion but when should we be suspicious

In the United Kingdom, tuberculosis is more common in deprived than affluent white people with particularly high prevalence in the homeless [2,3]. It is more common amongst people of South Asian origin although there is no association with deprivation in South Asian communities [4]. It is an important co-infection with HIV infection

The principal symptoms of pulmonary TB, the most common form of TB in the UK, are those of pulmonary infection except that they are often insidious in onset and persistent once they arise

Cough is common which is usually unproductive or sputum in the early illness. It can also present with wheeze which can make differentiation from asthma difficult. Haemoptysis and dyspnoea are features of more advanced pulmonary disease. The associated systemic symptoms of fatigue, malaise, weight loss, anorexia and evening and night fevers and sweats may be more pronounced than the respiratory symptoms. A history of contact with a person with tuberculosis (although not commonly volunteered) or a previous history of tuberculosis are important warnings.

So when should we be suspicious? Assuming that Mr S does not have HIV he lives in deprived area in overcrowded circumstances the chance of tuberculosis are higher. But this is insufficient to suspect tuberculosis in everyone with a cough which does not clear up quickly after an upper respiratory tract infection. The practitioner's sensitivity to atypical features is important: Mr S was vague about his 'cold' symptoms; although he attributed his fatigue to poor sleep, the amount of coughing was not quantified and may not have accounted for the symptom. Was he sicker than would have been expected from the clinical signs in the second presentation?

Maintaining a high index of suspicion is our primary weapon in identifying the occasions when the common symptom represents more significant pathology. We need to be particularly vigilant when patient's symptoms, which we have attributed to self-limiting infection, do not resolve as predicted; we then need to consider and look for features which suggest a more significant infectious process. ■

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