

Oncology without Tissue Diagnosis?

Most UK NHS hospitals have close educational and working relationships with their referring family doctors, and many of them hold a weekly “grand round” meeting, often accompanied by lunch in the hospital dining room. The various hospital departments, and occasionally GPs, take it in turn to present cases.

The new Charing Cross Hospital in Fulham, London, is no exception. This is 1976 and the Oncology department is presenting a “grand round” case of “radiotherapy without a tissue diagnosis”. The presentation describes an English woman in her mid-fifties presenting with pain in the back. Plain X-rays reveal osteolytic lesions in some thoracic vertebral bodies and a small peripheral opacity in one lung. Provisional diagnosis is pulmonary carcinoma with thoracic vertebral metastases.

The presenting team go on to explain that repeated sputum specimens sent for cytology were all negative for neoplastic cells, and the lung lesion is too peripheral to be viewed and sampled bronchoscopically. Biopsy of a vertebral lesion, or the pulmonary lesion, was not carried out. It is possible that in the mid-seventies facilities and/or knowhow to perform needle biopsies from such sites were not yet established.

The presentation concludes that this case is an uncommon example where oncological treatment has to proceed without a tissue diagnosis. The lady is given radiotherapy to the lung and vertebral lesions. A few weeks later she dies and at autopsy the oncology team is dumbfounded to discover that she died from disseminated tuberculosis.

This reminded me of a lecture delivered to us students in 1960s Malta by a Swedish pathology professor, wherein he claimed that 15% of tuberculosis cases in his country

were only diagnosed at autopsy. At the time all deaths in Sweden had to undergo an autopsy, so the country had very accurate morbidity and mortality records.

In 1981 I took a month off (used my annual leave) from my UK consultant post to do a histopathology locum in Jeddah, Saudi Arabia. There I met the late Luis Vassallo, physician, who had left Malta because of the doctors’ strike and lockout. He came to me one morning to tell me about this Saudi woman patient in her mid-fifties who presented with pain in her back and plain X-rays had shown a lung opacity and osteolytic lesions in thoracic vertebrae.

I couldn’t believe the similarity of his case with the Charing Cross Hospital one. However, Luis was convinced this was lung cancer with vertebral metastases and asked me to do a bone marrow on her. I said I was a histopathologist not a haematologist, but he insisted I do it because the haematologist was away on holiday.

I thought confirming disseminated lung cancer from a random bone marrow sampling was rather far-fetched, and I hadn’t done a sternal tap since I was a houseman in Malta. Anyway, I managed to get a sternal bone marrow sample which, as to be expected, was normal. However, in the report I added that I had seen a similar case in London which turned out to be disseminated tuberculosis.

Because there were no facilities in Jeddah to biopsy a vertebral or a peripheral pulmonary lesion, the patient was transferred to Riyadh. Just before I left Saudi to return to England, a doctor phoned me from Riyadh to tell me that he had seen my note in this patient’s bone marrow report and that I would be pleased to know that a vertebral biopsy had in fact confirmed tuberculosis.

Before anti-tuberculous drugs appeared on the therapeutic scene, thoracic vertebral and para-vertebral tuberculous disease involvement (Pott’s disease) was not uncommon and vertebral collapse was responsible for hunchbacks. This unfortunate disfiguring complication was so commonplace it also found its way into literature and theatre, such as the Hunchback of Notre Dame and Rigolotto the hunchback.