

Metastatic Follicular Carcinoma Of The Thyroid Mimicking Spinal Tuberculosis

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INTRODUCTION:

It is clinically challenging to differentiate metastatic spine disease from TB spine. TB spine & malignancy can be mistakenly diagnosed during the initial presentation. The distinction of radiological studies between metastatic spine diseases with TB spinal can be very difficult.

It is not uncommon that anti tuberculosis drugs are being prescribed for the suspected case of Pott's disease based on the clinical & MRI findings without a histological analysis because we are in TB endemic region.

We report a case of metastatic follicular thyroid carcinoma to the spine mimicking spinal tuberculosis.

MATERIALS & METHODS:

67-year old Malay man complained of gradual onset of low back pain for 6 months prior to admission. Pain was persistent, severe at any time. Besides that he had bilateral lower limbs numbness & radiating pain of his both lower limbs. There was a significant weight loss about 10kg within 6 months. He denied any history of night sweating, fever, cough or contact with TB patient.

Generally he looked thin & his lower limbs were wasted bilaterally. His sensation reduced from T12 downwards, with power grade 0/5 bilaterally. He also had a 3x3cm swelling anterior to the neck which moved with deglutition.

RESULTS:

Blood investigation showed ESR : 39mm/hr, mantoux test was -ve, TWBC : 28, Thyroid function test was normal.

MRI showed destruction of L1-L3 vertebral bodies with evidence of paraspinal and epidural collection, suggestive of TB spondylitis. The spinal canal was narrowed from T12/L1 until L2/L3. A Large heterogeneous mass measuring 9.3cmx10.4cmx5.7cm was seen extending from L1-L3. FNAC of thyroid gland was done by surgical colleagues & the result was thyroglossal cyst.

He was started on anti-tuberculosis drugs but didn't show any response to treatment even at 6 months. Decompression laminectomy + posterior instrumentation was later performed on him. A biopsy was taken intra-operatively & diagnosis of metastatic follicular carcinoma of the thyroid was confirmed by HPE result.

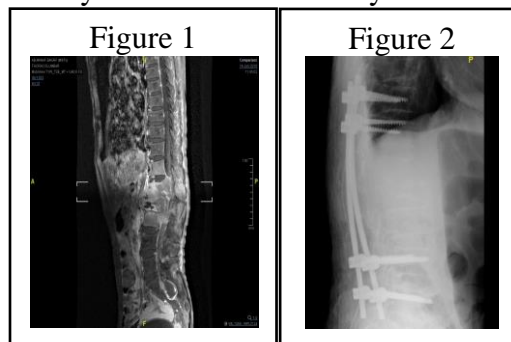


Figure 1 : Mid-sagittal T1 weighted MRI showing vertebral destruction from L1-L3 vertebrae and severely compressed spinal cord at the level T12/L1/L2

Figure 2 : Post operative images of the patient following the surgery

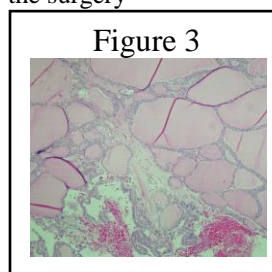


Figure 3 : Section shows thyroid tumour composed of thyroid follicles. The thyroid follicles are lined by cuboidal to flattened epithelium.

DISCUSSIONS:

Thyroid carcinoma preferentially metastasizes to the bone (25%) second to the lung 49%. They are more prevalent in follicular thyroid cancer (7-28%) than in papillary thyroid cancer (1.4-7%) [1]. 80% of the follicular thyroid carcinoma is found to have a solitary non-toxic thyroid nodule. [4].

Like primary, thyroid tumor metastases to the spine are also slow growing and usually remain localized to one region of epidural space for many months [2].

Spinal tuberculosis in MRI is described as destruction of contiguous vertebrae, end plates destruction & paravertebral abscess [3]. The