

## Spinal Tumours

The most common type of spinal tumour is a secondary tumour or metastases. This is a tumour that has spread to the spine (usually in the blood) from a tumour elsewhere. Sometimes the patient may have a known diagnosis of cancer elsewhere but in some cases it presents in the spine for the first time and then the primary source has to be identified. Treatment has to be individualised depending on the tumour, the symptoms and the patient and a multi-disciplinary approach is mandatory.

Primary tumours that arise de novo in the spine are rare and can be described as benign or malignant. A so-called 'benign' tumour in the spine may cause symptoms from a pathological fracture as the bone is weakened or from neurological compression. For example a benign cyst in bone may cause the bone to thin resulting in collapse of the vertebra with pain and possible neurological compression.

Primary malignant tumours in the spine e.g. osteosarcoma, are very rare and require specialist assessment and care. A multi-disciplinary approach is essential as medical treatments including radio and chemotherapy are often used as well as surgery. Surgery has a role to stabilise the spine, control pain and address neurological compression. In some cases, 'en bloc' excision to remove the entire tumour can be considered in an attempt to cure the problem but this depends on the individual tumour and its characteristics.

### ***Presentation***

Most patients with a spinal tumour present with pain in the spine and/or symptoms of neurological compression. Back pain is very common in the population and there is no absolutely guaranteed method of knowing that the back pain suffered is not due to a sinister cause other than imaging with MRI. Features of the pain that may cause concern are unremitting, progressive pain that is not relieved by a change in position or lying down that is associated with other symptoms such as malaise or weight loss. A normal MRI can often be reassuring for many if there is any concern.

### ***Investigation***

Diagnosis of spinal tumour can be made using MRI. In some case bone scanning may be a useful diagnostic tool. Plain xrays only show advanced changes in the spine and do not have a role in primary diagnosis, but are useful for surgical planning, as is CT. Blood and urine tests may be requested.

Figure 1. Metastatic tumour of L1 showing collapse of vertebra

### ***Treatment***

For malignant (primary or secondary) tumours of the spine, treatment is truly multidisciplinary and may involve chemotherapy, radiotherapy and palliative care. The majority of patients with a spinal tumour do not undergo surgery and in those that do, the aim is of symptom control and not cure. Surgery (and radiotherapy) has been shown to be of great benefit in patients with isolated metastases from breast cancer compared to radiotherapy alone but is still not widely offered in the UK. Surgical intervention can range from a minimally invasive kyphoplasty through to complete excision of the tumour from an open combined anterior and posterior approach. Information on these can be found on the treatment page of the website.

Figure 2. Xrays following 'en bloc' excision of tumour in figure 1

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