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En bloc vertebrectomy for the treatment of a spinal mestastasis

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Spinal tumours account for 5% of all bone tumours. The spine is one of the most frequent sites of metastases.
Conventionally, curettage or piecemeal excision of vertebral tumors has been commonly practiced. However, clear disadvantages of these approaches include a high risk of tumor cell contamination of the surrounding structures and residual tumor tissue at the site due to the difficulty of distinguishing tumor from healthy tissue.
These factors contribute to incomplete ressection of the tumor as well as high local recurrence rates of spinal malignant tumors.
According to Tomita et al, in the spine, one vertebra could be regarded as a single oncologic compartment.
The rationale of en bloc vertebrectomy is to allow a resection of the tumor in one piece together with a layer of healthy tissue (marginal or wide resection) and thus to reduce local recurrence rate and to improve long-term survival of the patients.
We present a case of a 16 year old female diagnosed with a spinal metastasis (T11), 2 years after having a resection and knee prosthesis for treatment of Ewing sarcoma of the left distal femur.
We performed a en bloc vertebrectomy of T11 using a single posterior approach, intrumentation from T9 to L1 with pedicle screrws and reconstruction of the anterior column with an expandable cage.
Three months after surgery, the patient is doing chemotherapy. She has no pain or neurological deficit.
We presente this case due to the rarity of a spinal metastasis from a Ewing sarcoma in the paediatric age, and because the procedure that was preformed is a very demanding technique.
Until recently, the aims of surgical treatment were to reduce the neurological symptoms and improve the patient's quality of life. Total en bloc spondylectomy will not affect general metástases or extend survival, but if patients are carefully selected and if the operation is part of a total programme of management, this procedure may achieve local control of metastases and extend the patient's survival.

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