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## Combine Approach; Surgery and Radiosurgery in Spine Tumors

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### Resumen

Every year in USA 180.000 new cases of spine metastases are diagnosticated 20.000 of them with medular compression. 5-14% of the patient with cancer presented spine metastases, 33% in bone, 4% leptomeningeal, and 0,1-0.4% intramedullary. The most frequent primary intraspinal tumor is schwannoma, followed by meningioma, glioma, sarcoma and etc.

Although surgery is widely thought to be the treatment of choice for metastases and benign spinal tumors.

The introduction of new technology in radiotherapy and radiosurgery, and the large experience accumulated in the brain radiosurgery make possible the application of these treatment more and more in spine pathology.

Modern technologies allow the delivery of high radiation doses not only to vertebral body but to intramedullary spinal cord metastases while lowering the dose to the neighboring organs at risk. Whether this dosimetric advantage translates into clinical benefit is not well known.

The general indication of spine radiosurgery are: the recurrent tumors multiple lesions, unfavorable localization, high risk for open surgery.

Step by step we left behind the surgery as the only treatment option, conventional radiotherapy for its toxicity and the philosophy is moving forward in the concept of combine approach.

The Patchell trial published in Lancet 2005 demonstrate that the combine treatment of surgery plus radiotherapy is superior to treatment of radiotherapy alone.

Bilsky et al. in her publication: "Local disease control for spinal metastases following "separation surgery" and adjuvant hypofractionated or high dose single fraction stereotactic radiosurgery demonstrate that the separation surgery (surgery plus radiosurgery) is superior than surgery alone and can permit us to control the medullary compression and the spine metastases with less toxicity of the medulla.

We are changing our mind.