



Treatment of Spinal Metastases

INTRABEAM 600 from ZEISS



Seeing beyond

Precise handling in conjunction with palliative treatment – the key benefits of IORT for spinal metastases

For many cancer patients who develop spinal metastases over the course of their disease, percutaneous cement augmentation is a valuable treatment option.¹ By using intraoperative radiation therapy (IORT) during cement augmentation, spinal metastases can be sterilized and the vertebra can be stabilized simultaneously.²

- Using IORT for spinal metastases as an integrated approach enables instant full-weight bearing and restores mobility.^{2,3}
- Long-term stability of the vertebral body due to improved control of local metastases.⁴
- Significant time reduction. Because the radiation is delivered as a single, precisely targeted treatment during surgery, chemotherapy can be started without delay.^{5,6}



1 The tumor is located.



2 Using X-rays, a minimally invasive access point is created.



3 The ZEISS INTRABEAM Needle Applicator is positioned.



4 Radiation (<5 min) of the bone metastasis at its precise location.



5a Stabilization of the vertebra using vertebroplasty or...



5b ... balloon kyphoplasty.



IORT from ZEISS is a new approach for the treatment of spinal metastases. Using this integrated approach, immediate structural stabilization and sterilization of the metastasis can be achieved. Overall, IORT offers benefits for both patient and physician.



The clinical rationale

IORT from ZEISS for irradiation during cement augmentation is an innovative combination of surgery and radiation used to sterilize and stabilize the vertebra simultaneously.⁴ In addition, the high radiation dose with steep dose gradient provides healthy tissue and spinal cord protection. The procedure is a modern treatment option for local tumor control in patients with spinal metastases during palliative treatments. More than 100 operations have been performed using this method.^{7,8,9}



Adapt the radiation to the needs of your patients

To irradiate a tumor cavity, e.g. in the minimally invasive treatment of spinal metastases, ZEISS offers a complete range of applicators in different shapes, sizes and diameters. This versatility enables the physician to exactly adapt the emitted interstitial radiation beam to the form and size of the tumor cavity.

Literature References

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