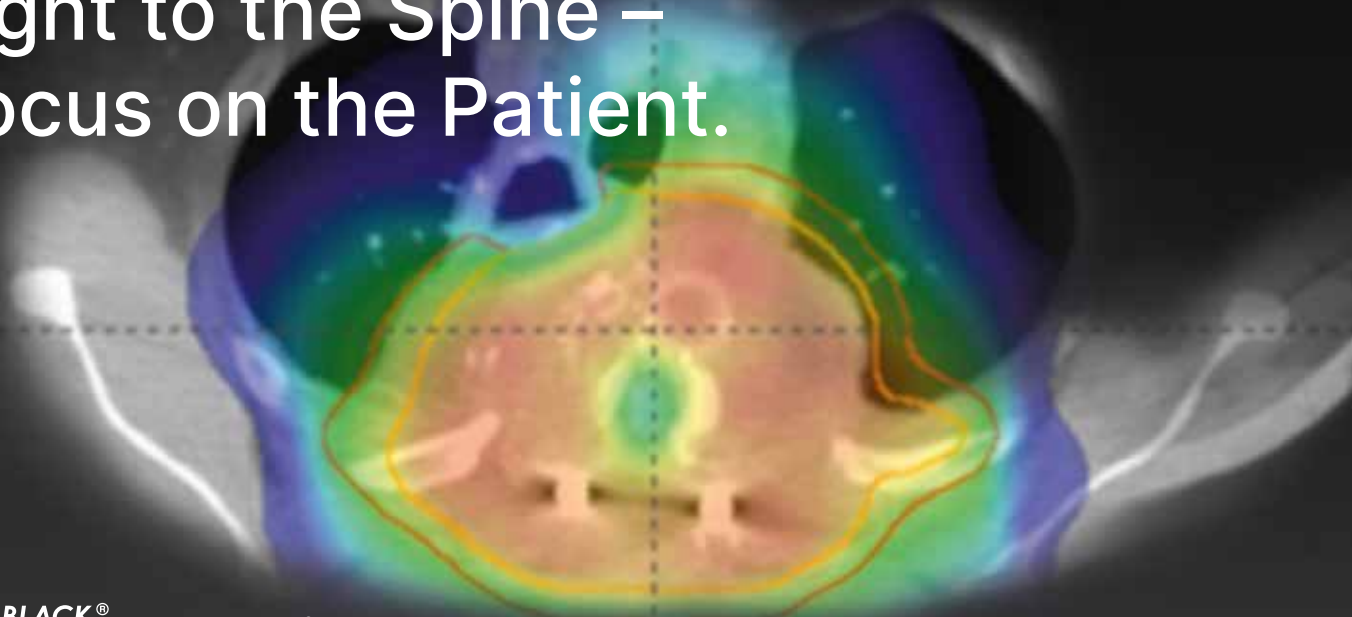


ICOTEC SOLUTIONS FOR TUMOR DISEASES OF THE SPINE

Light to the Spine – Focus on the Patient.



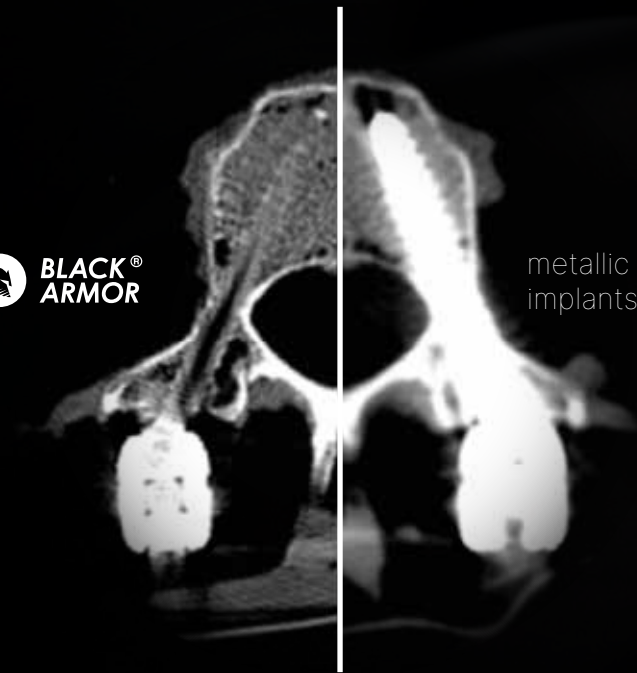


Optimized Imaging Leads to Effective Oncological Therapy

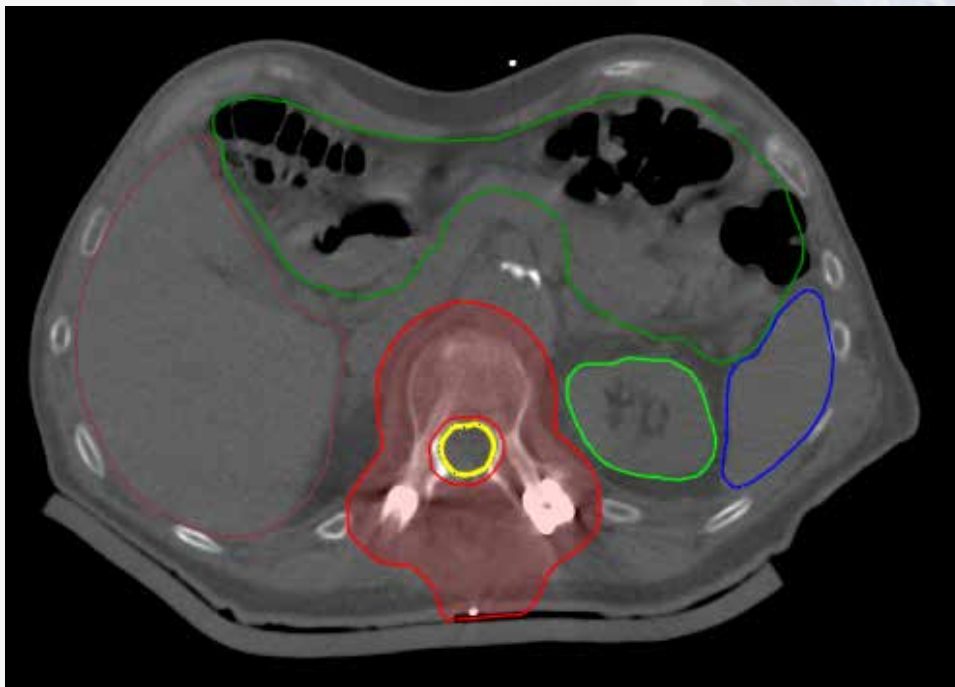
From radiation planning and therapy through to follow-up examination:
BlackArmor® Carbon/PEEK implants help you to achieve an optimal result for your patients
in every stage of treatment.



metallic
implants



Planning Quality with BlackArmor® Implants



The artifact-reduced imaging of BlackArmor® Carbon/PEEK implants provides a more precise delineation of target volume and organs at risk.



OPTIMAL CONTOURING OF TARGET VOLUME AND ORGANS AT RISK

Exact delineation of gross tumor volume (GTV) and neighboring organs at risk, such as spinal cord¹

Optimized imaging for postoperative radiation treatment planning in CT and MRI^{1, 5}



INCREASED ACCURACY IN DOSE CALCULATION

Up to 90% reduction of implant artifacts with BlackArmor® Carbon/PEEK vs. metallic implants¹

Correct conversion of Hounsfield units from CT data²



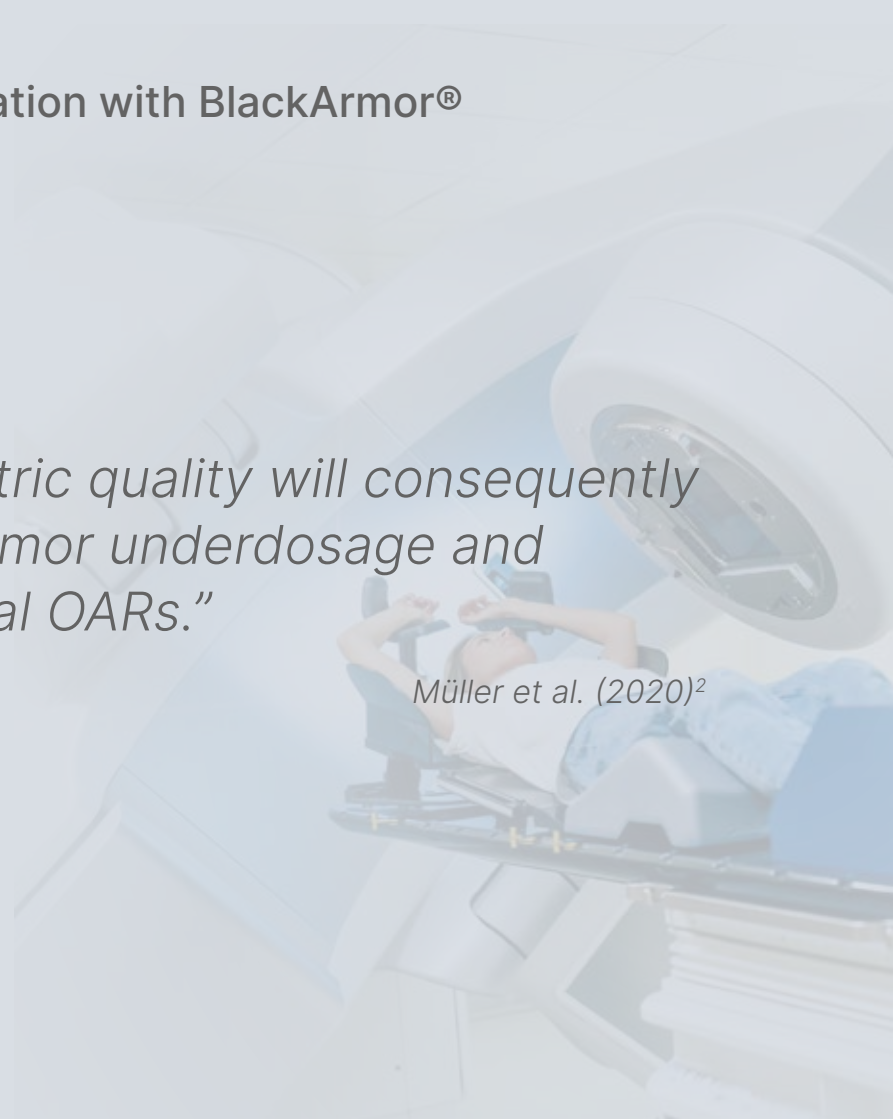
THERAPY CAN BE STARTED EARLIER ON

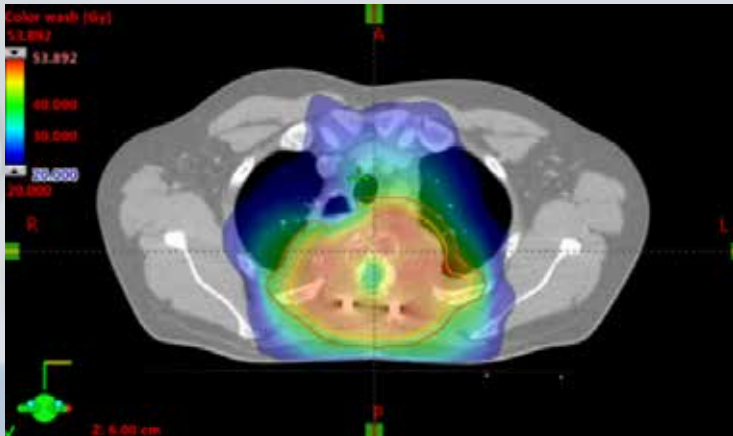
Up to 75% reduction of planning time¹

Precise Radiation with BlackArmor®

“This gain in dosimetric quality will consequently reduce the risk of tumor underdosage and overdosage of critical OARs.”

Müller et al. (2020)²





Optimized dose distribution enables dose escalation in the target volume with BlackArmor® Carbon/PEEK implants.



LOCAL TUMOR CONTROL AND REDUCED TOXICITY

Reduction of hot and cold spots of up to 50%¹

Minimal perturbation and attenuation effects of radiation⁴

Optimized application of SBRT with BlackArmor® Carbon/PEEK in the spinal column³

Optimized Follow-Up



Even small recurrences near the implant can be diagnosed thanks to artifact-reduced imaging with BlackArmor®.





EARLIER DETECTION OF EVEN SMALL RECURRENCES

Improvement of local therapy

Optimization of systemic therapy

“Artifact-reduced imaging with Carbon/PEEK implants enables us to carry out follow-up examinations where even small recurrences can be detected and treated early on.”

Prof. Dr. med. Stephanie E. Combs

Director of Clinic for Radiation Oncology and Radiation Therapy
Technical University of Munich

References

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