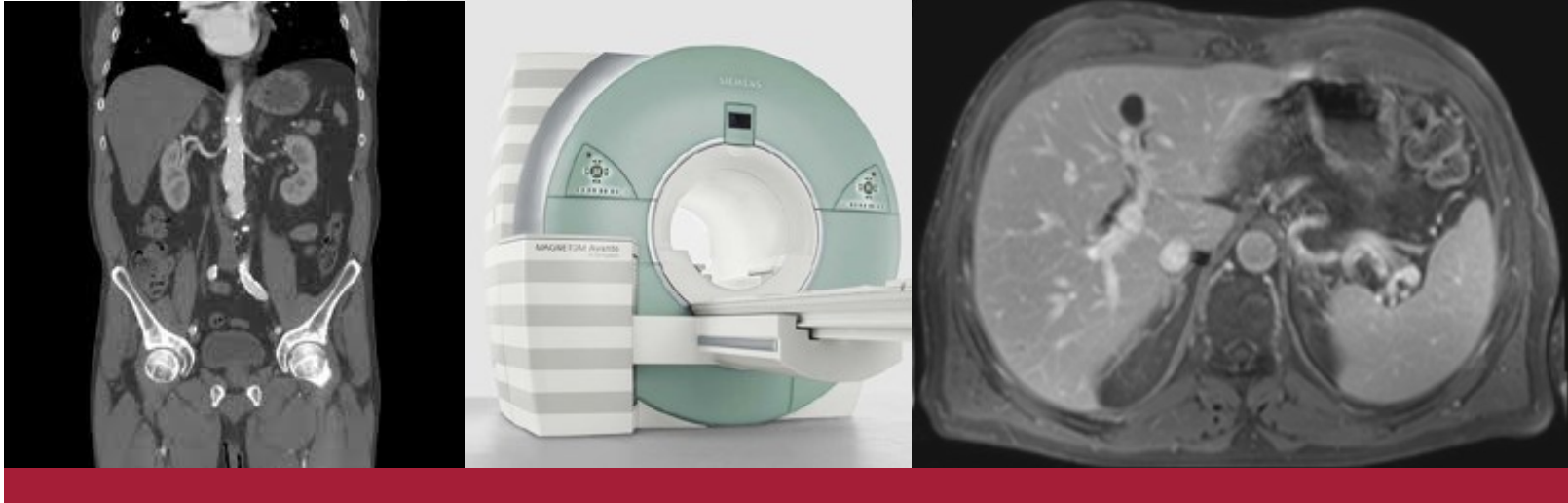




MR-guided Interventions

Dr. med Rüdiger Hoffmann

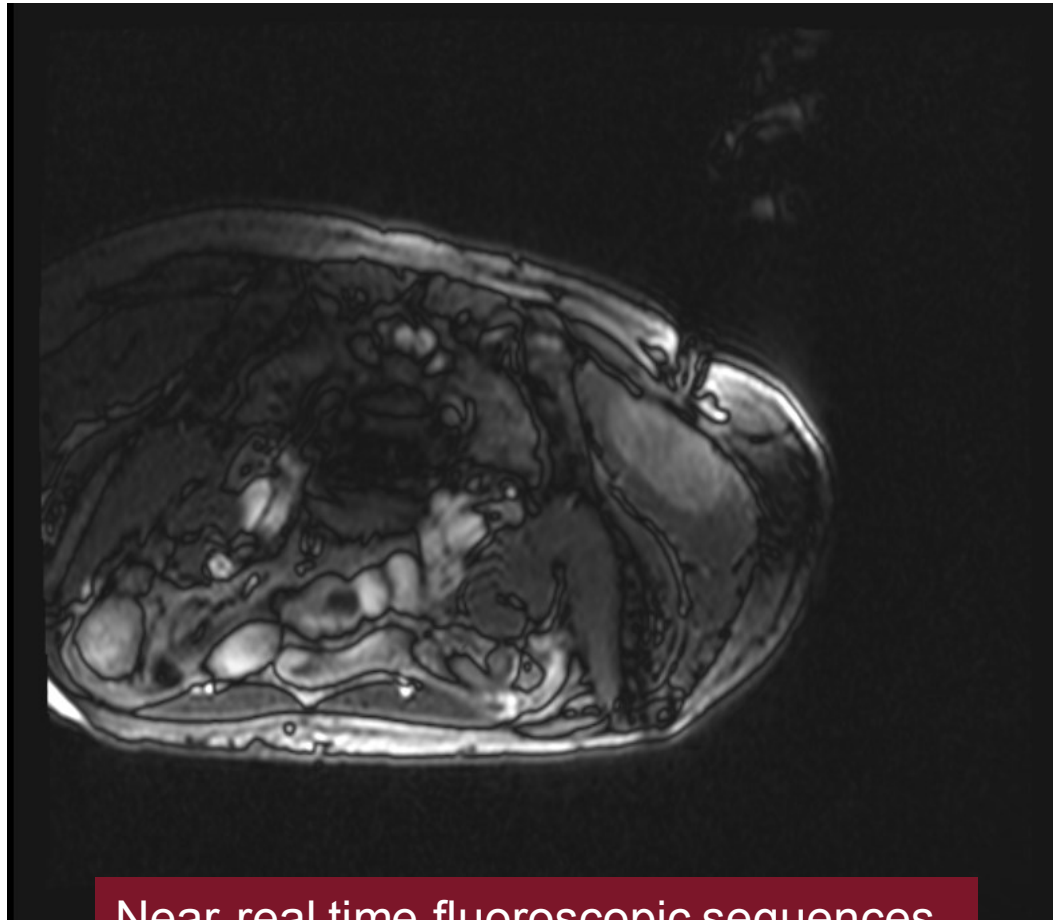
Biopsy



Biopsy handy

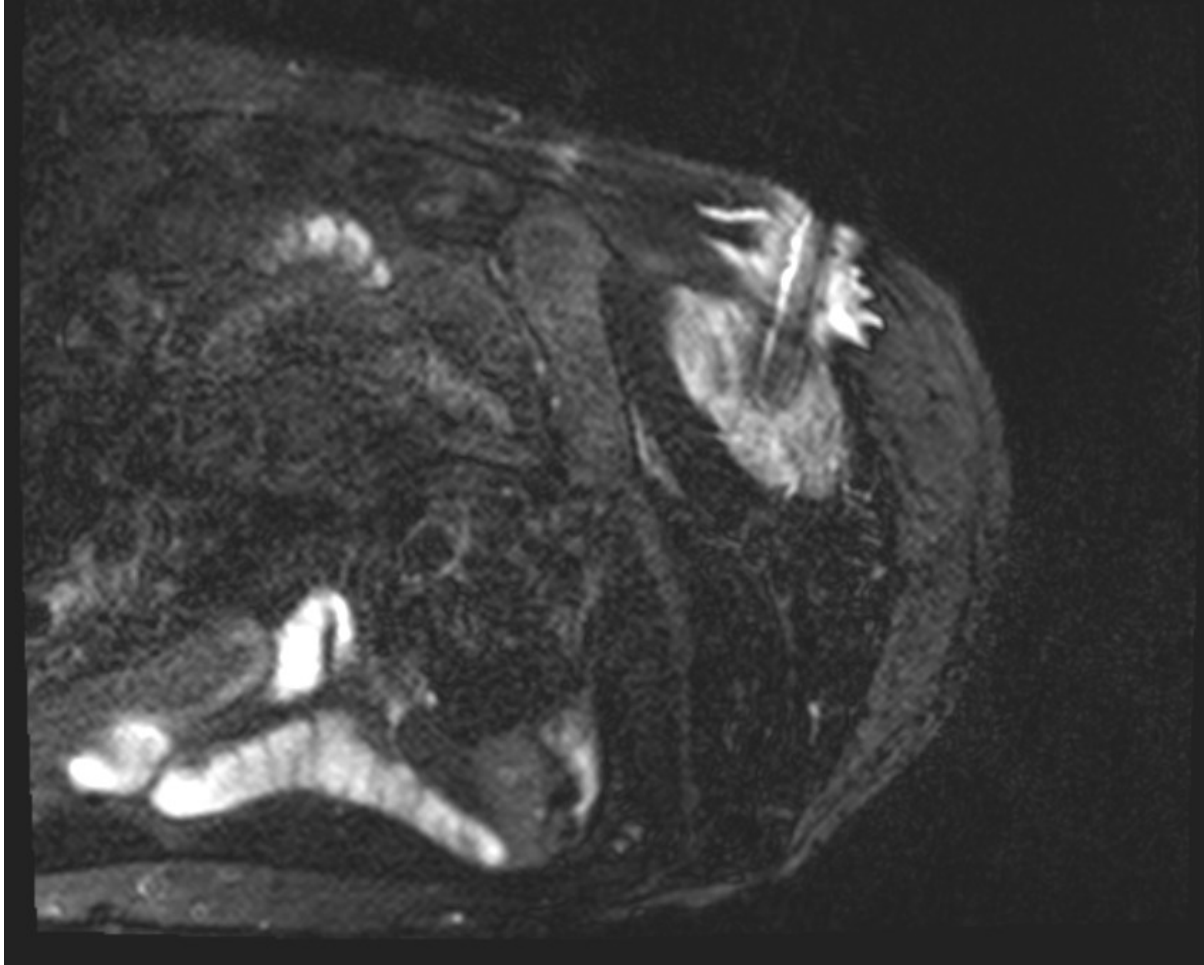
Puncture sheath

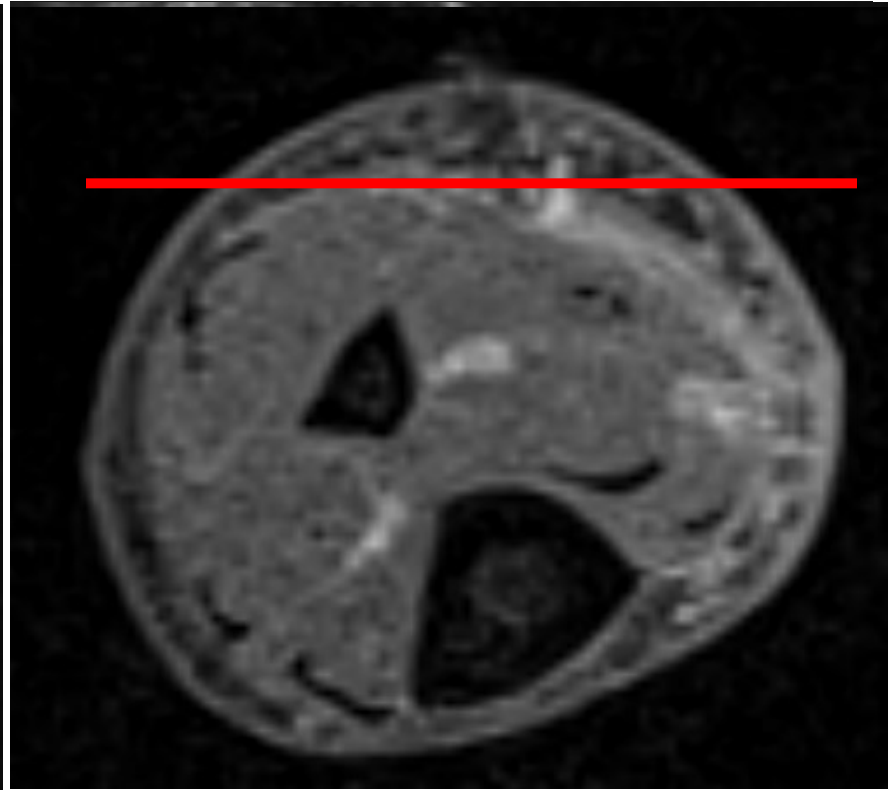
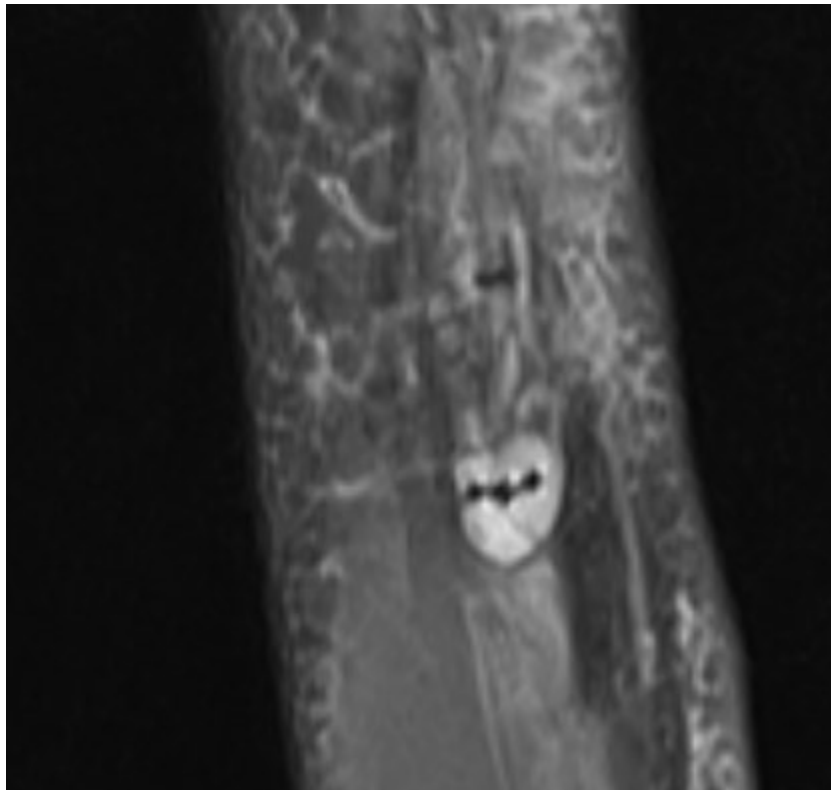
MR-Fluoroskopie





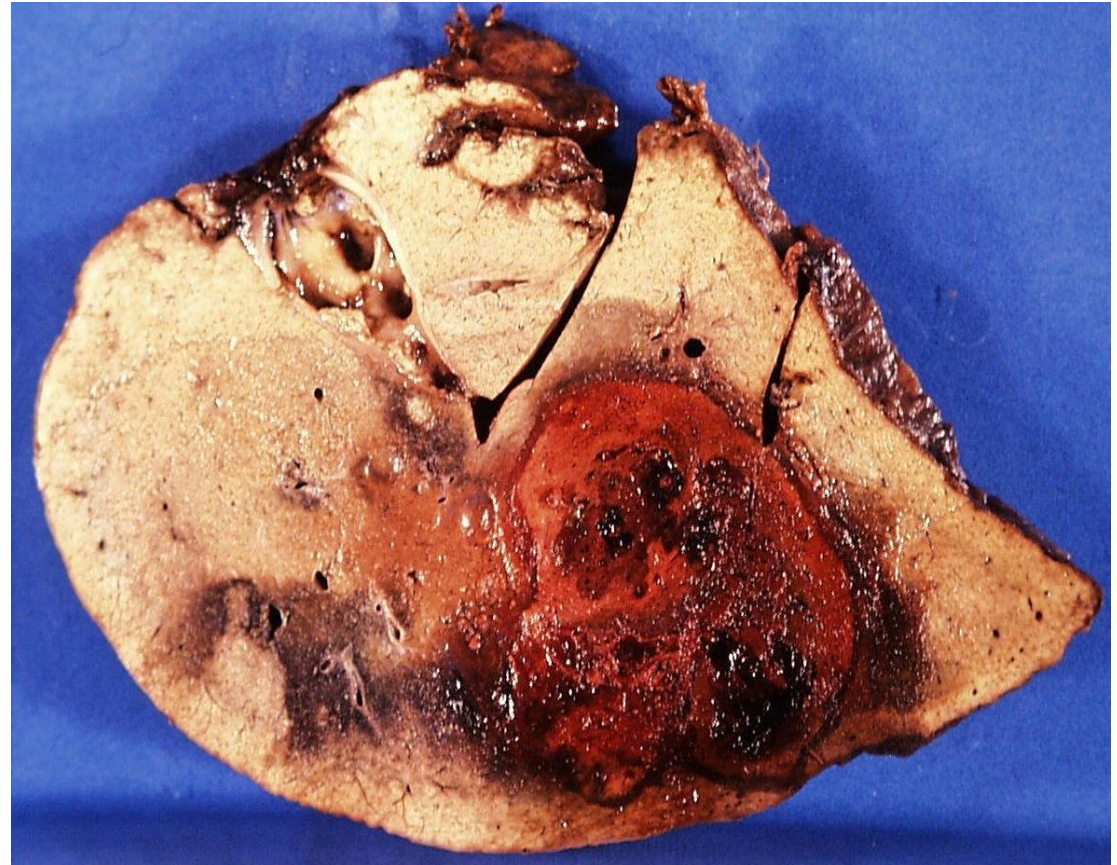
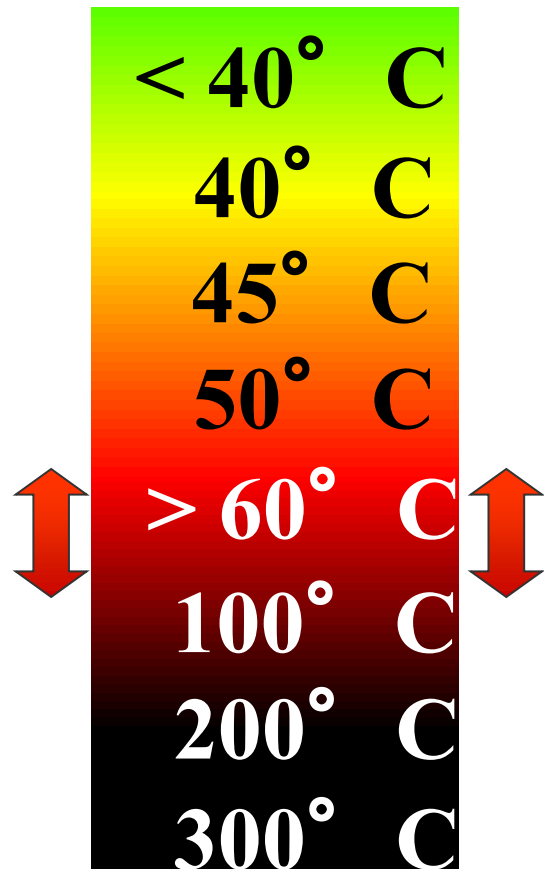
Biopsy



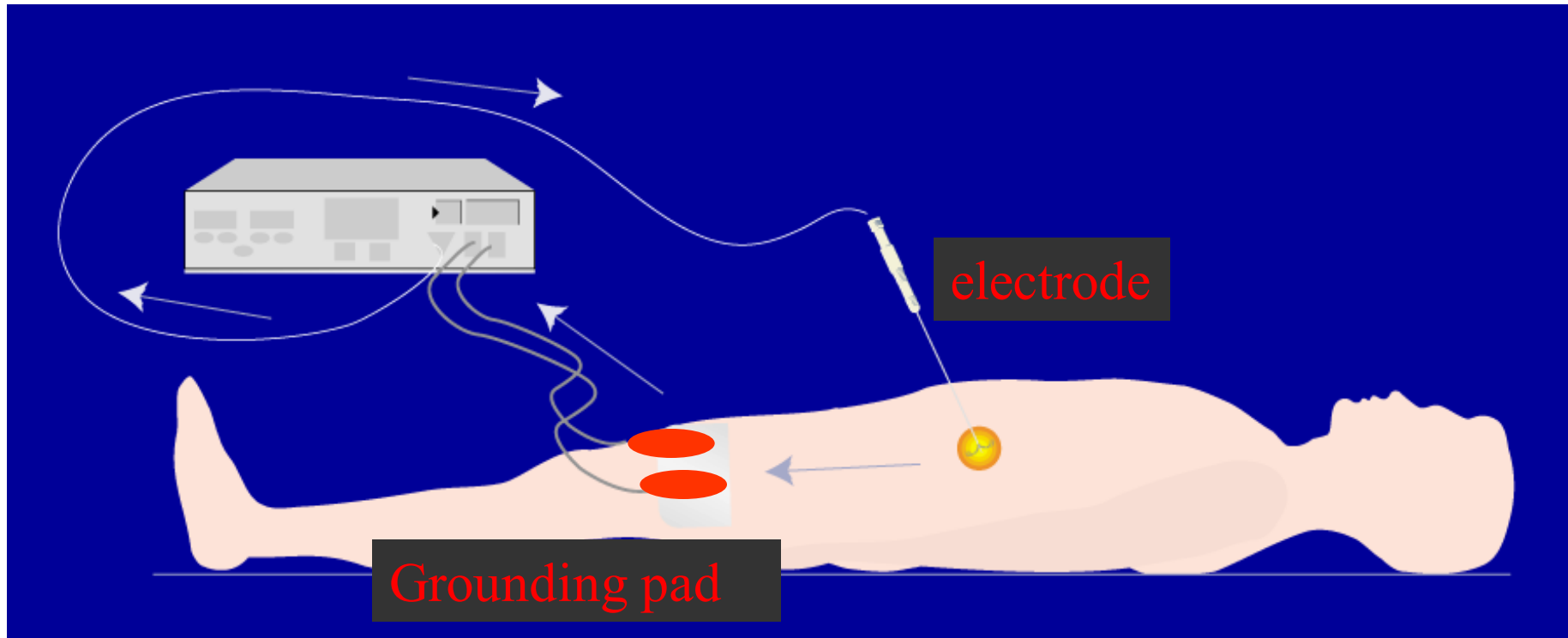


Free angulation of imaging slices

Thermic destruction of tumour tissue



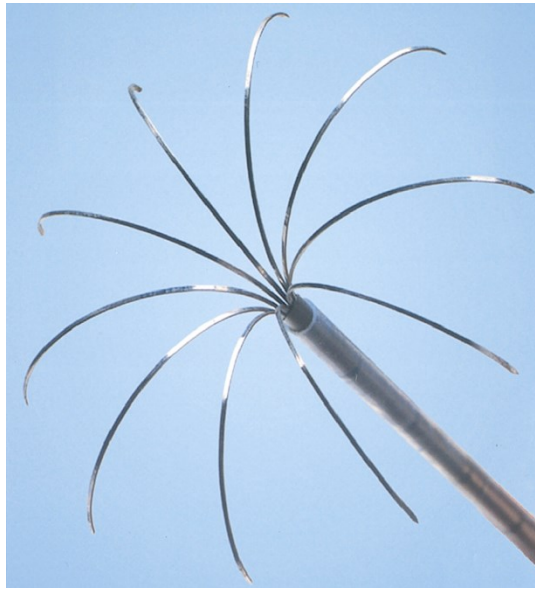
RFA: Heat induced by high frequent current



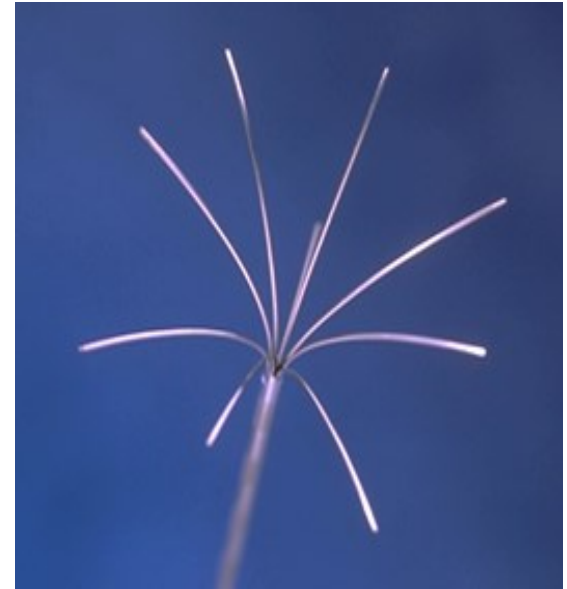
RFA electrode



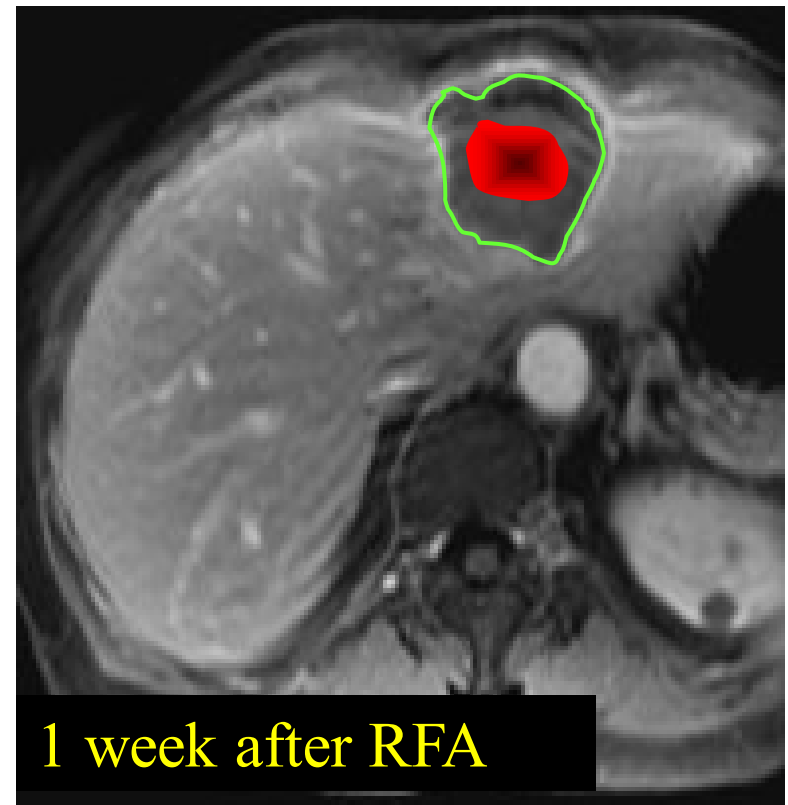
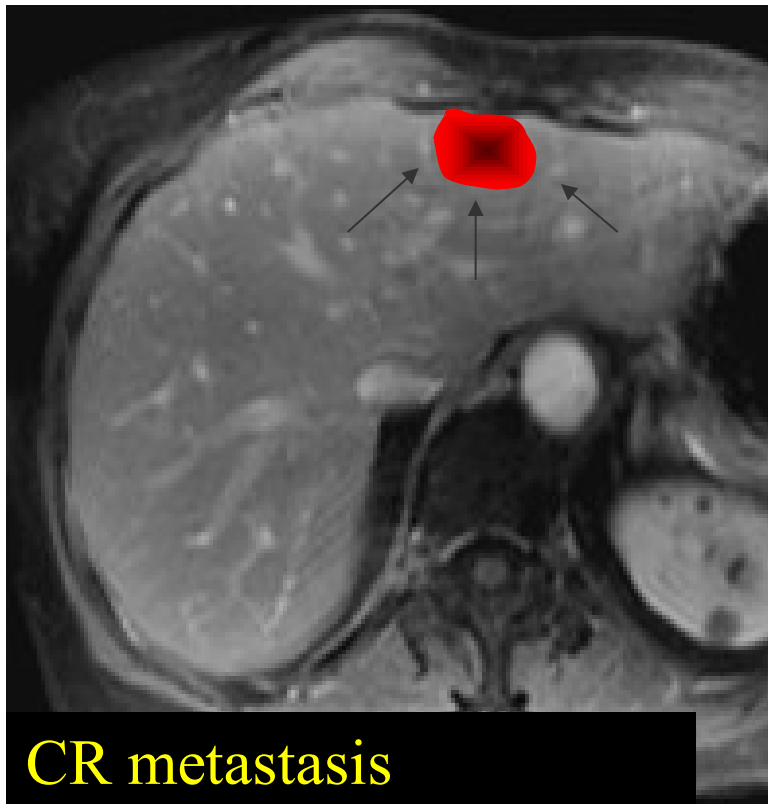
cluster

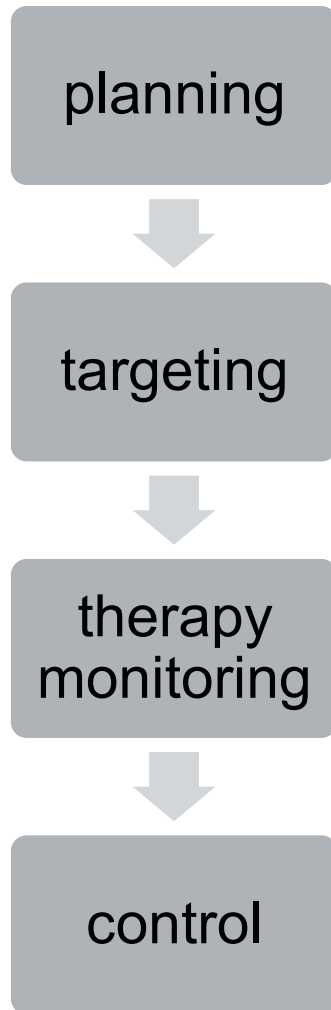


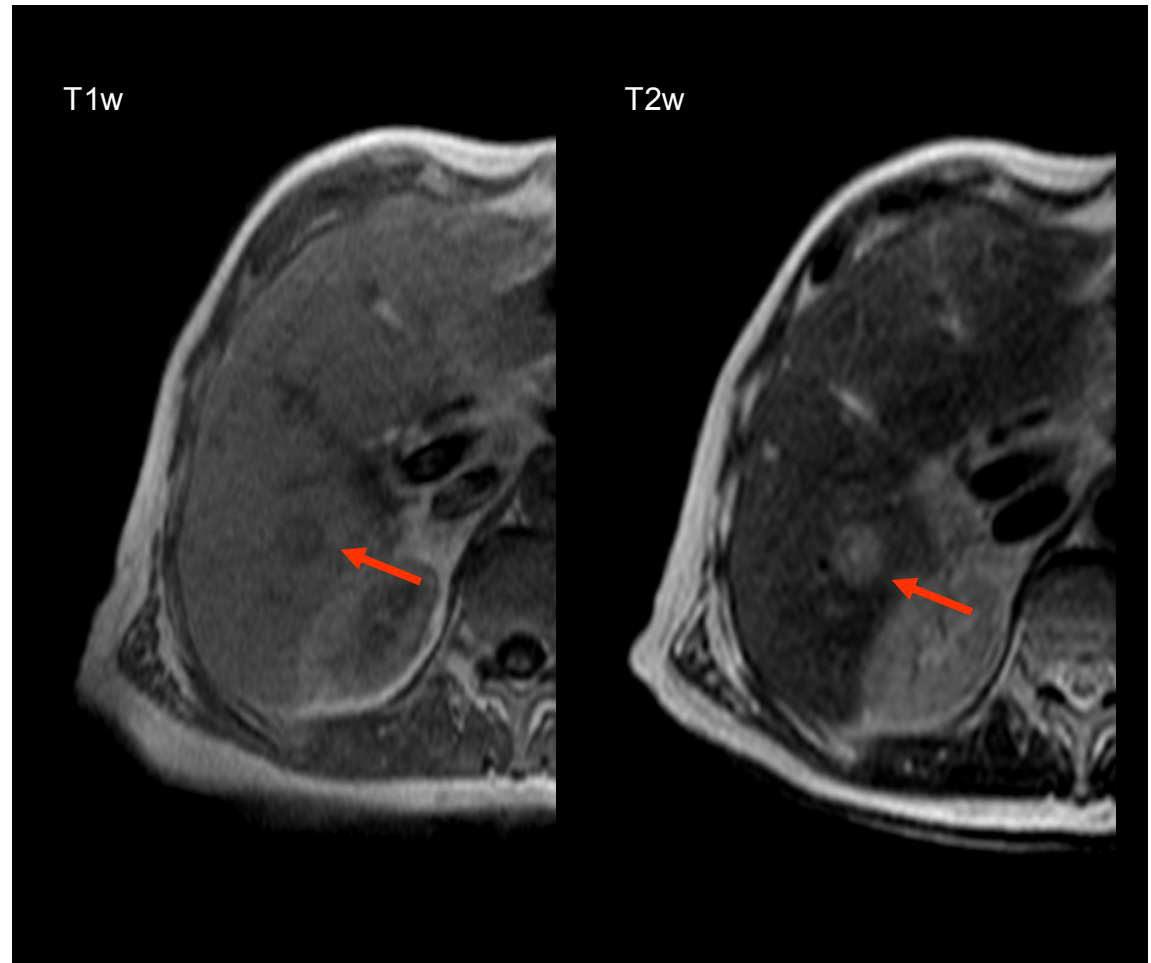
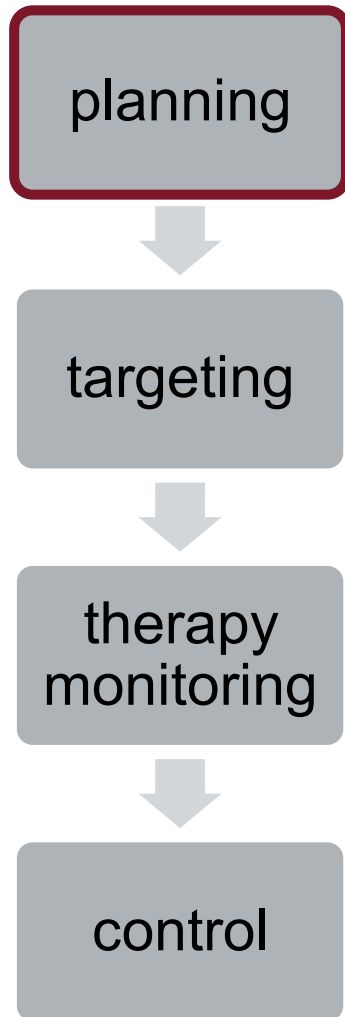
expandable

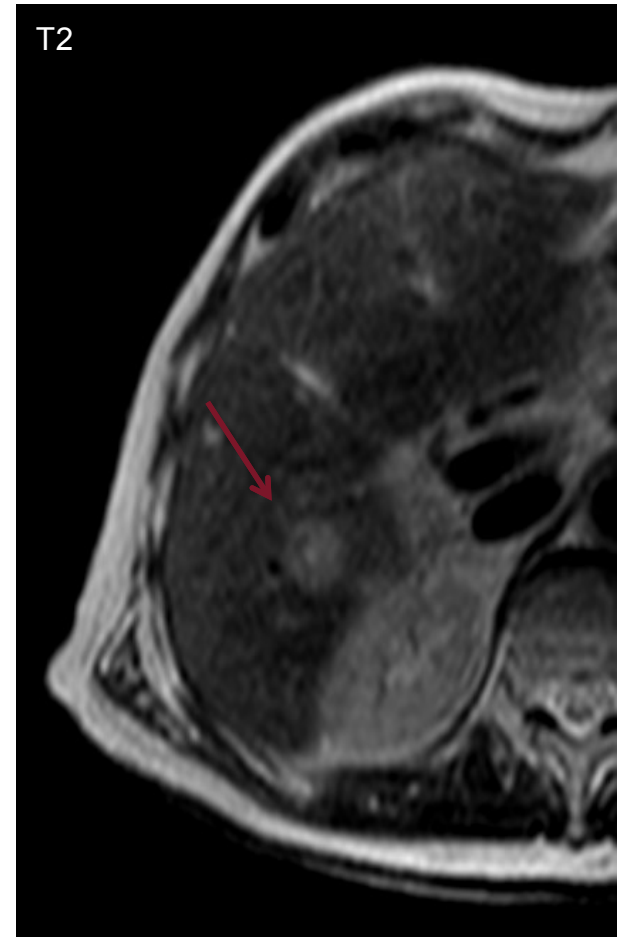
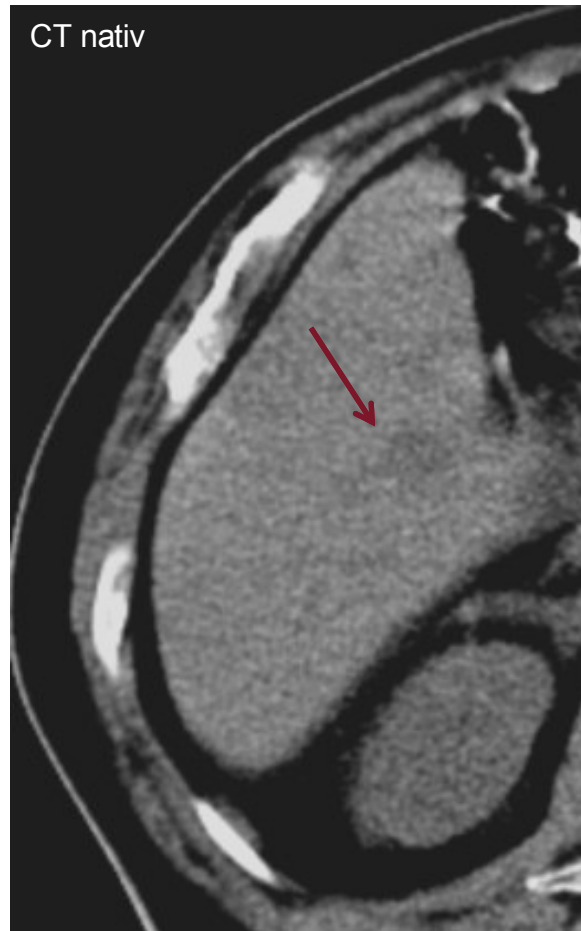
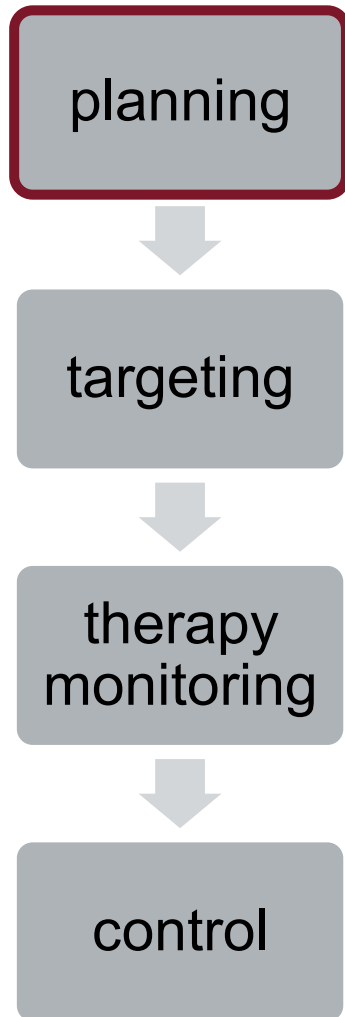


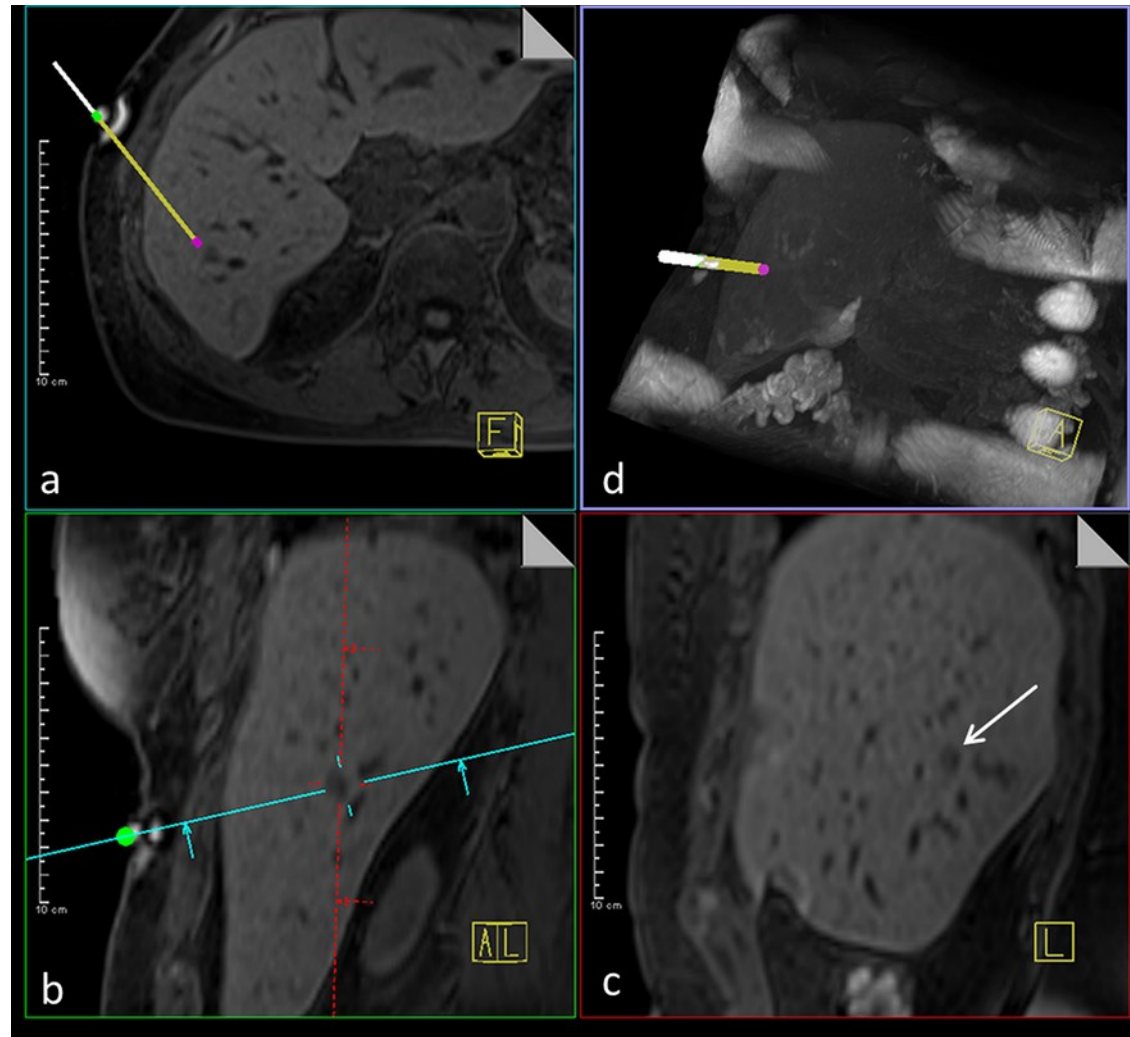
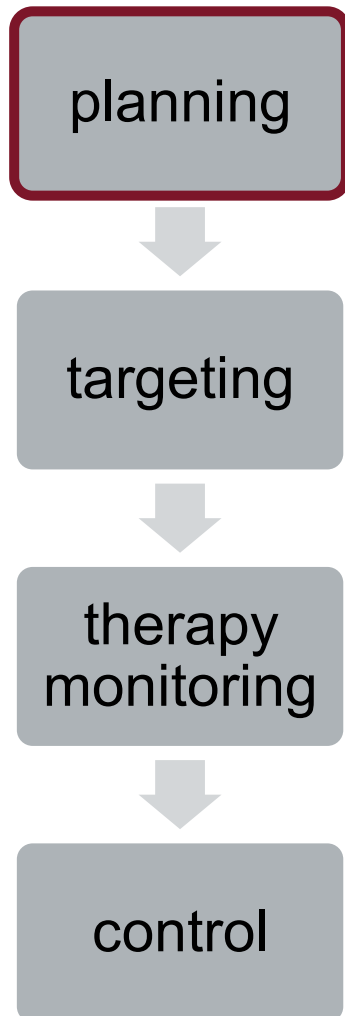
Aim: >1 cm safety margin



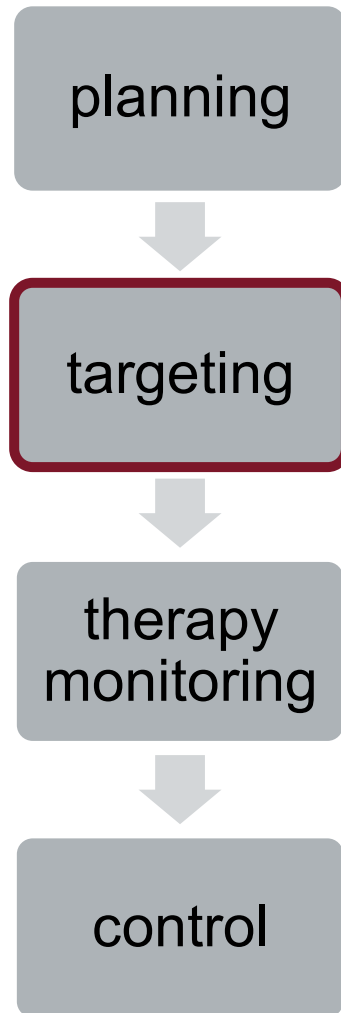




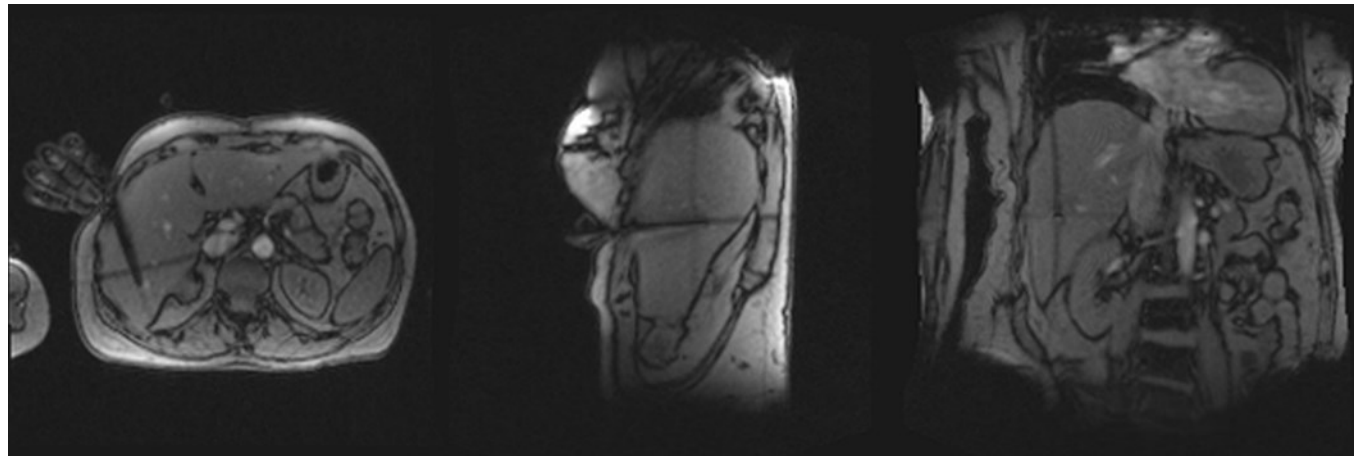




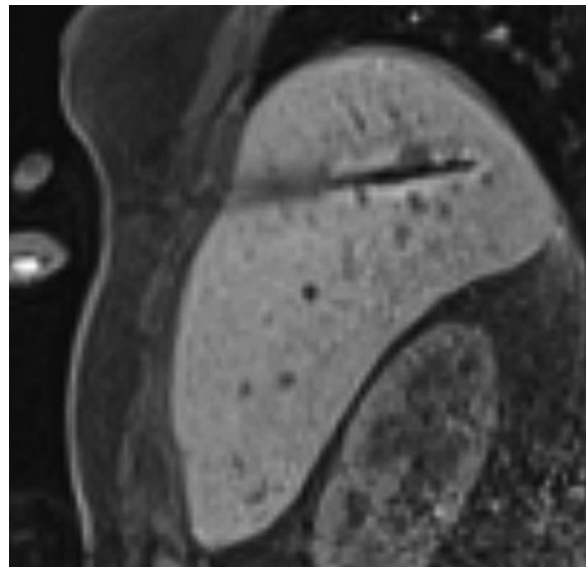
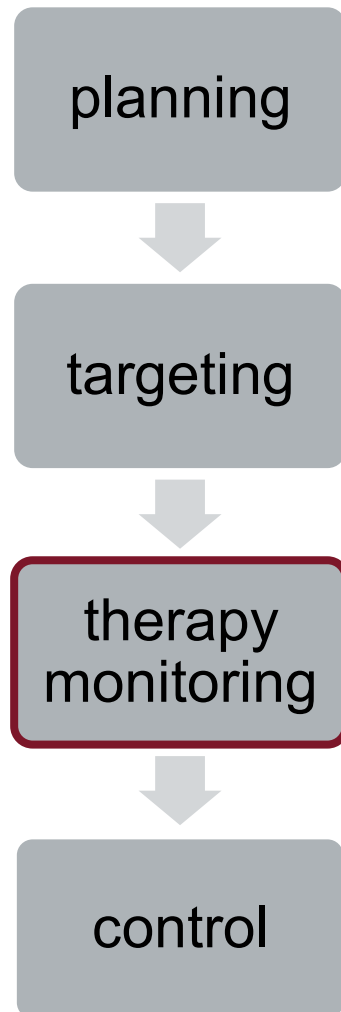
T1 VIBE. Interactive Front End (IFE; Siemens Healthcare)



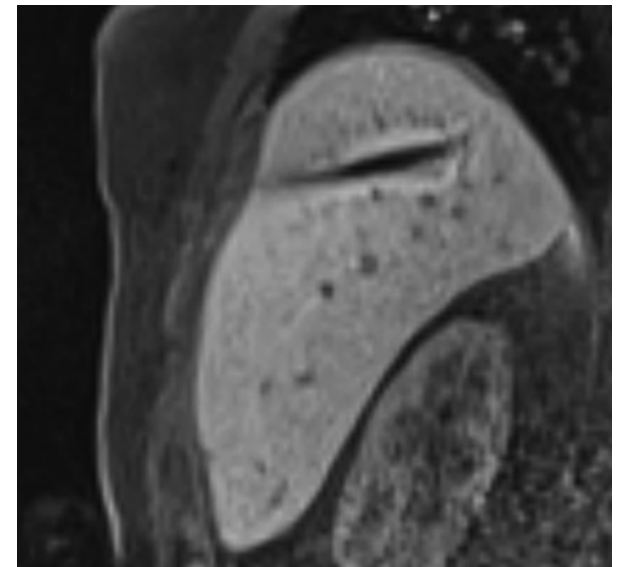
MR fluoroscopy



BEAT_IRTTT (Siemens Healthcare)

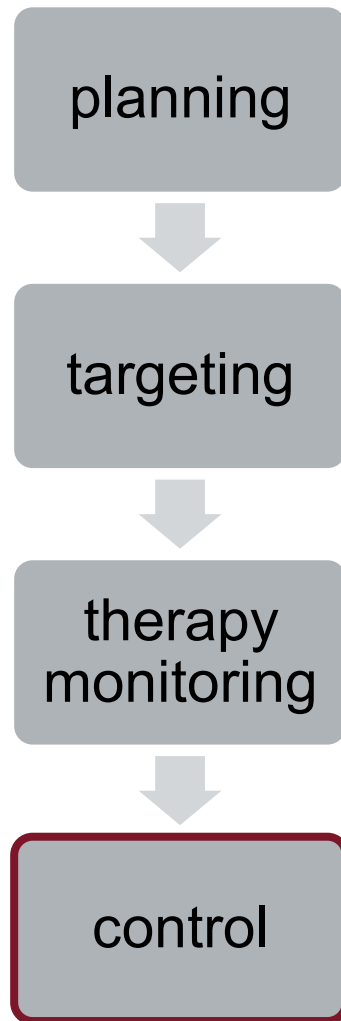


T1 VIBE

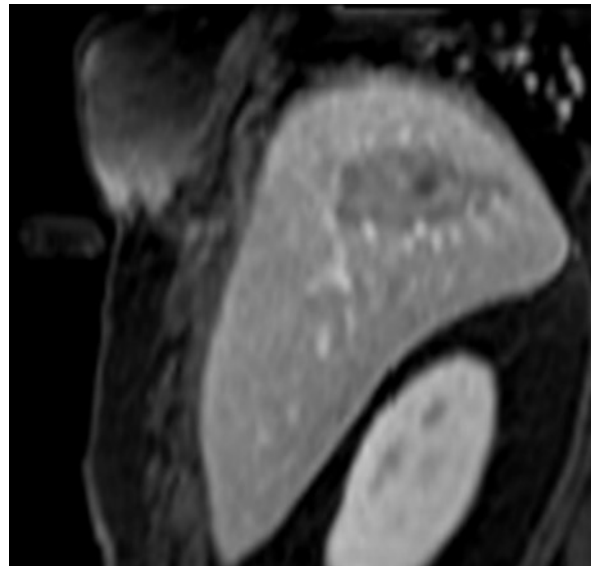


T1 VIBE

Assessment of the ablation zone without retraction of the antenna.



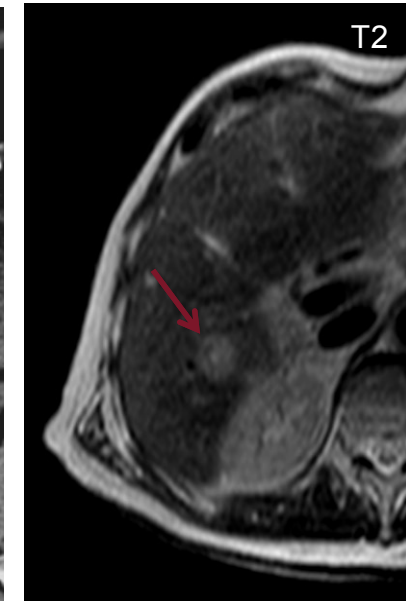
CE-dynamic T1 VIBE (gadobutrol)



T1 VIBE

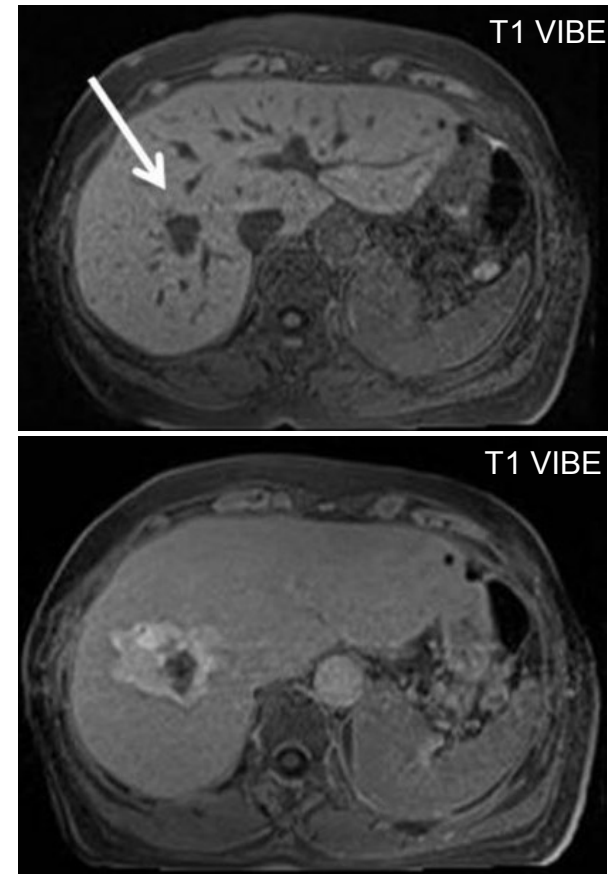
Advantages of MR-guidance

- Soft tissue contrast
 - Assessment of the ablation zone
 - without contrast agent
- Free angulation of slices
- MR – Fluoroscopy
- Radiation free imaging
- ... new methods



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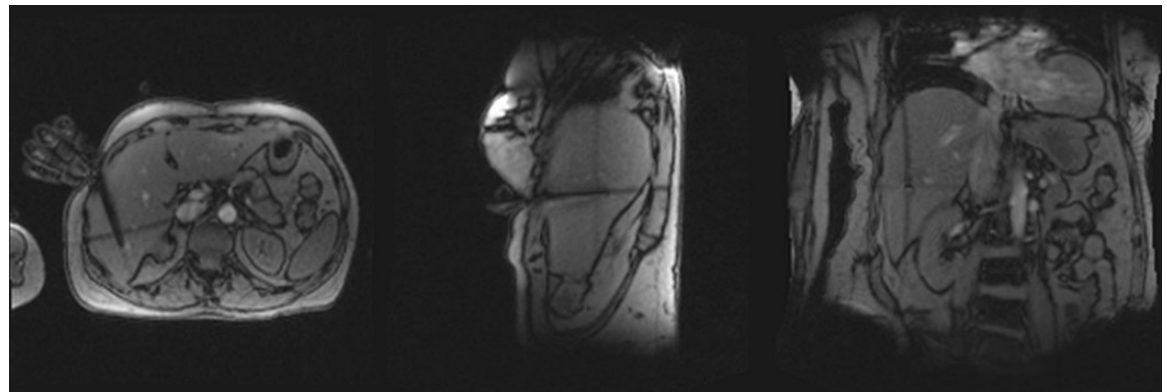
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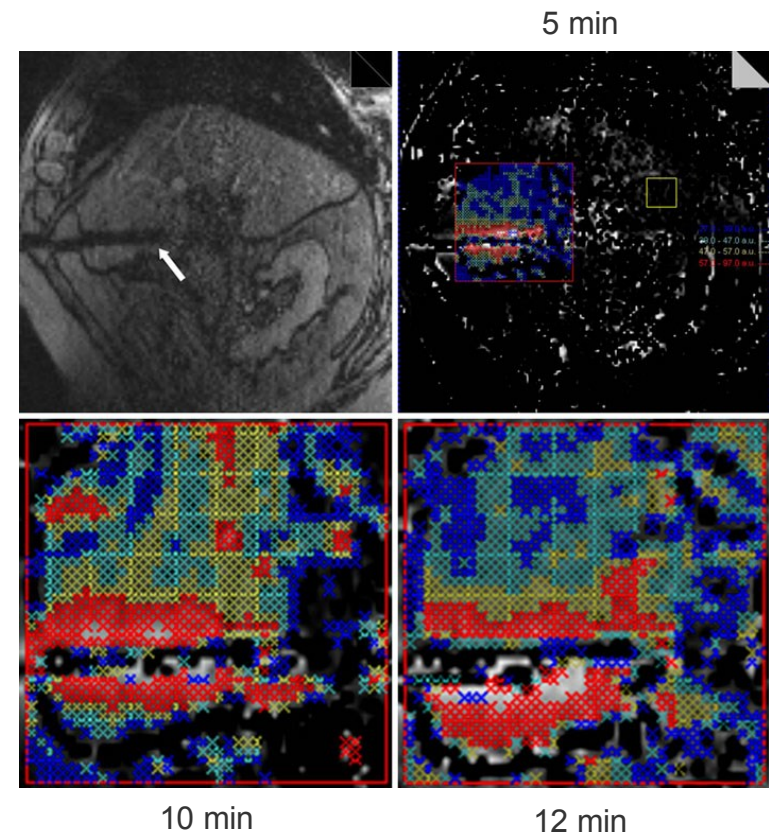
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Thank you!