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Intraoperative MRI – Uppsala University Hospital

Sami Abu Hamdeh MD, PhD

VO Neuro, Neurokirurgi

Akademiska Sjukhuset





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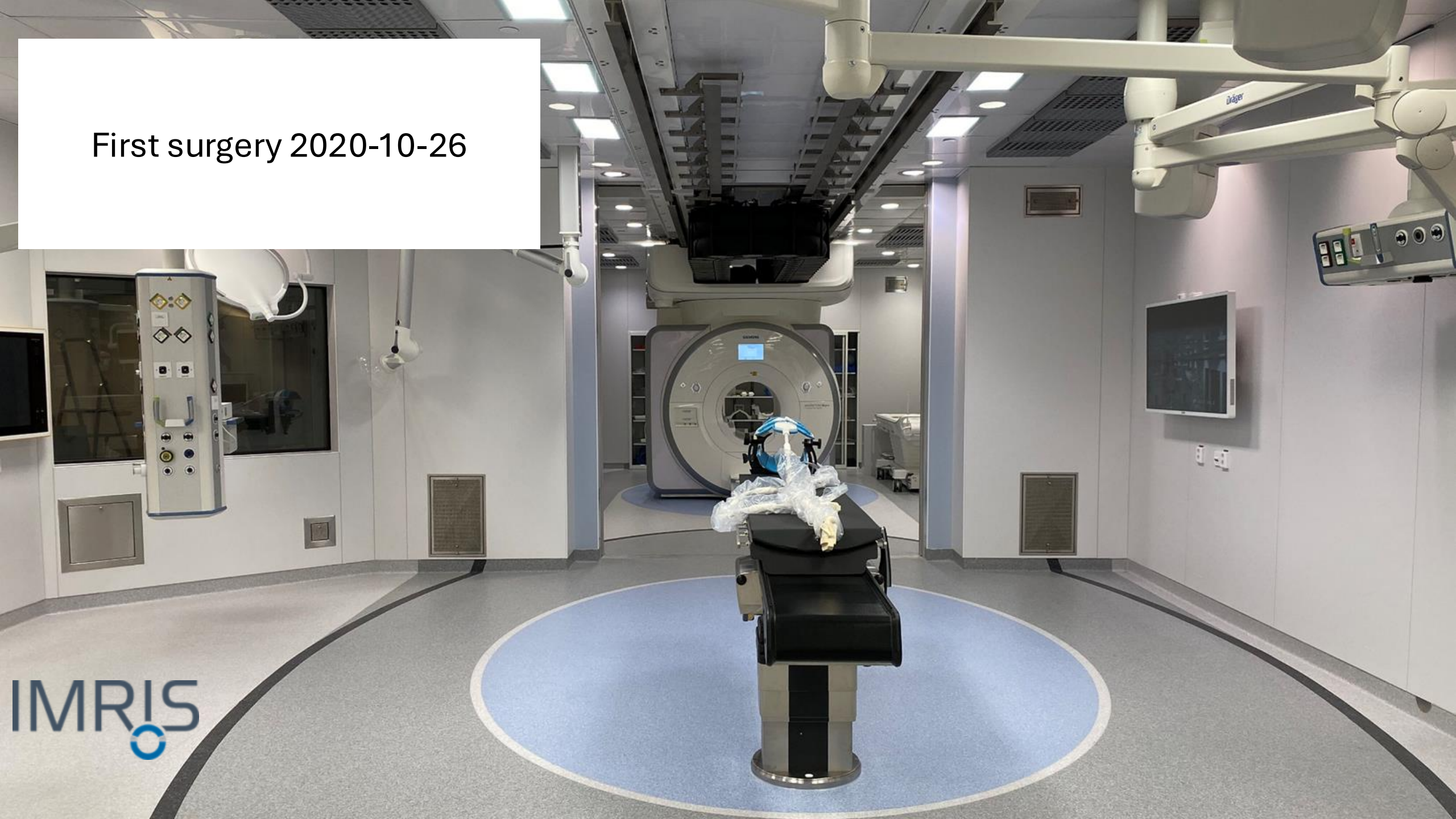


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No conflict of interest to declare



First surgery 2020-10-26



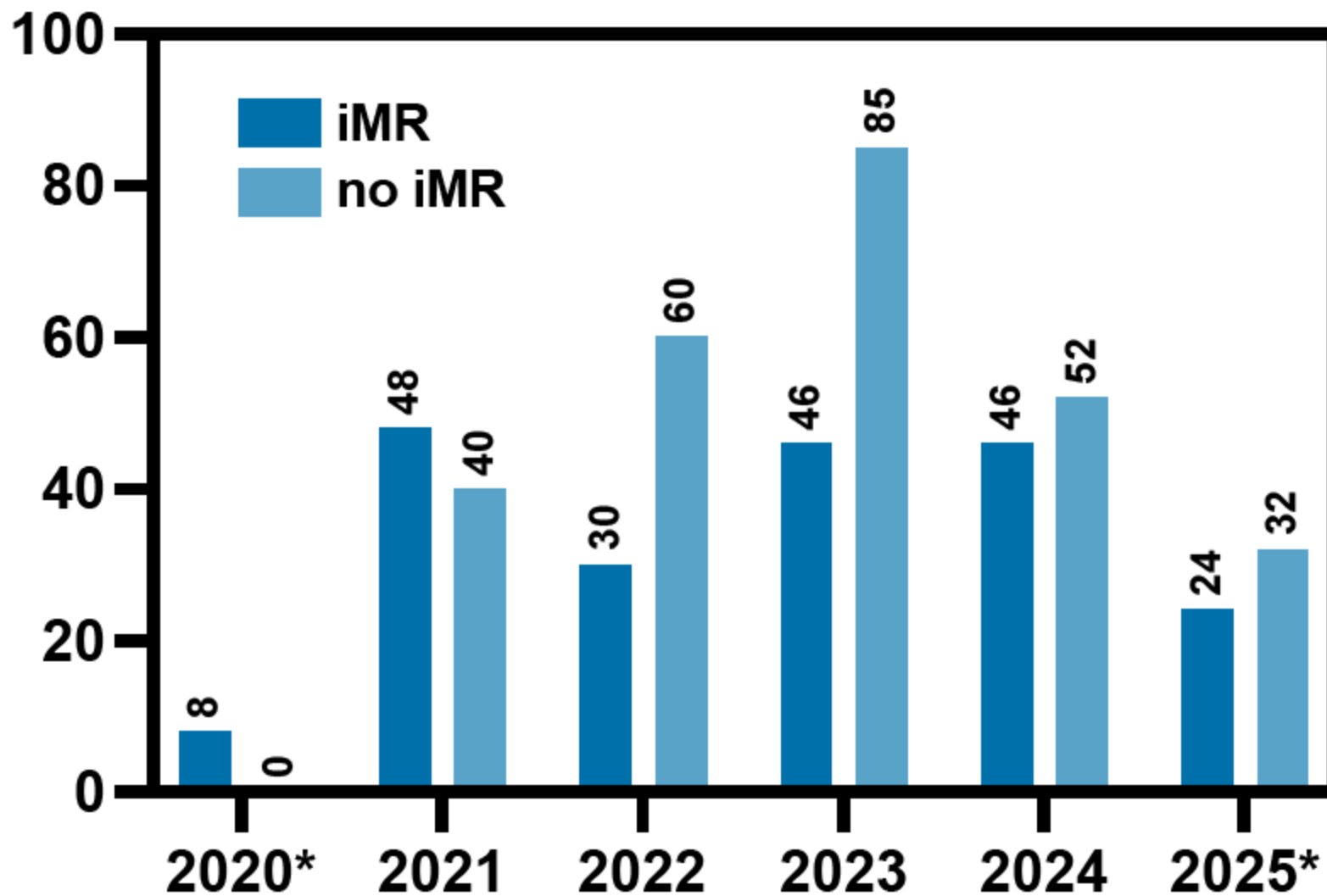


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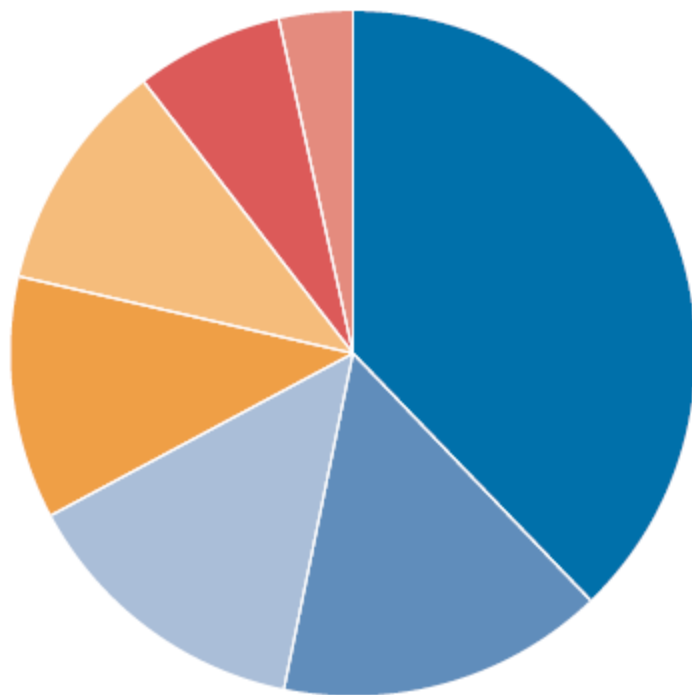
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Number of surgeries



*From 26 october 2020 to 12 may 2025

Type of surgery



- 76 DBS
- 31 LITT
- 28 Pediatric Tumor
- 23 EP Resection
- 22 Adult tumor
- 14 Other*
- 7 sEEG

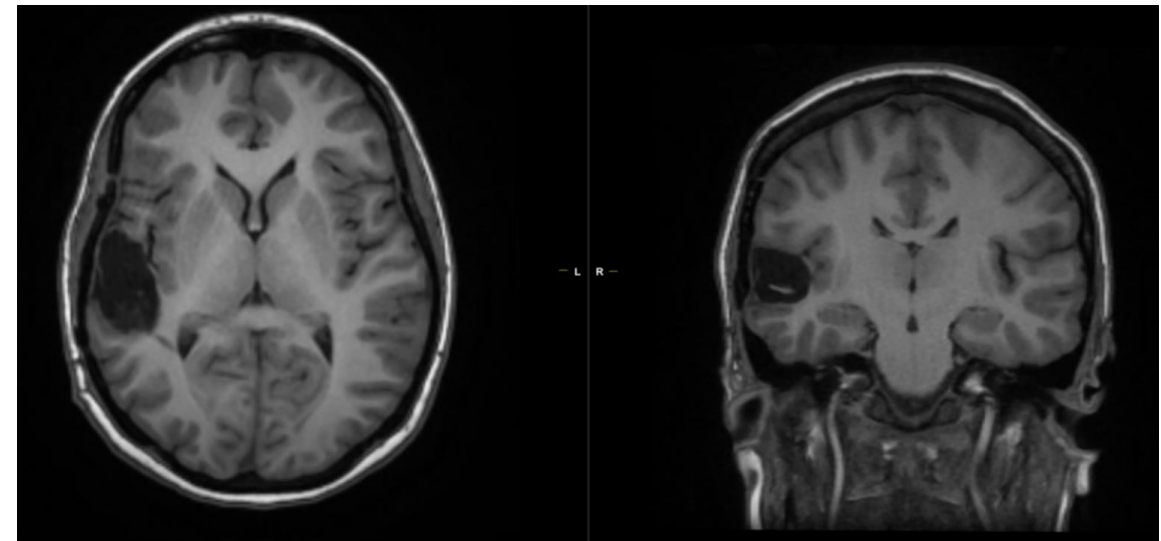
Total = 201

***Biopsy, ENT, Plastic**



iMR in Uppsala

- Siemens Skyra 3.0 Tesla enables short scan times with high-quality images and functional intraoperative MRI such as DTI
- Images are comparable to routine.





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iMR in Uppsala

- Advantage
 - High throughput for OR
 - No patient transport
 - Sterile environment
- Disadvantage
 - High installation cost
 - No routine MRI due to logistics, sterility and noise
 - Staff requirements





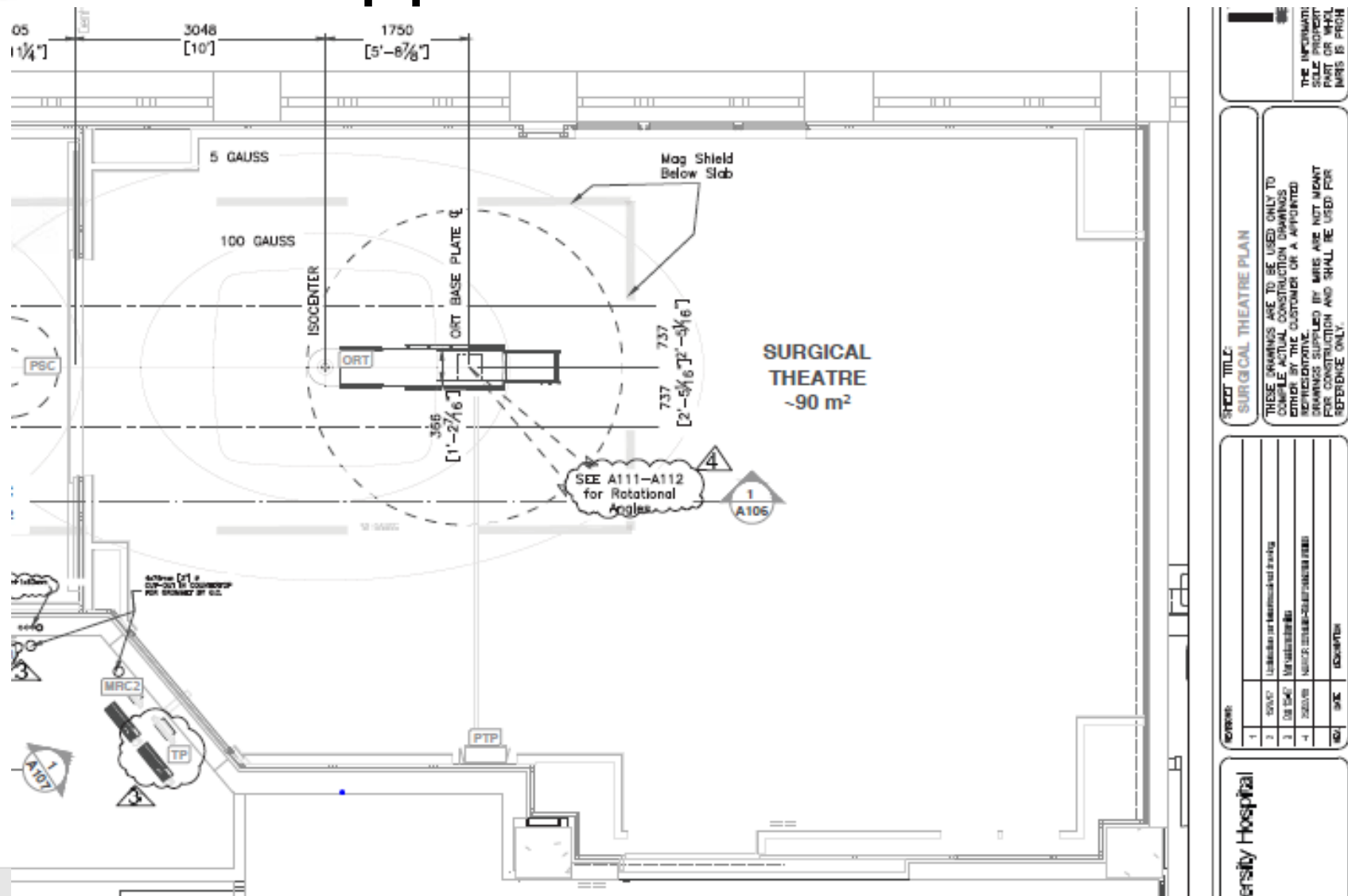
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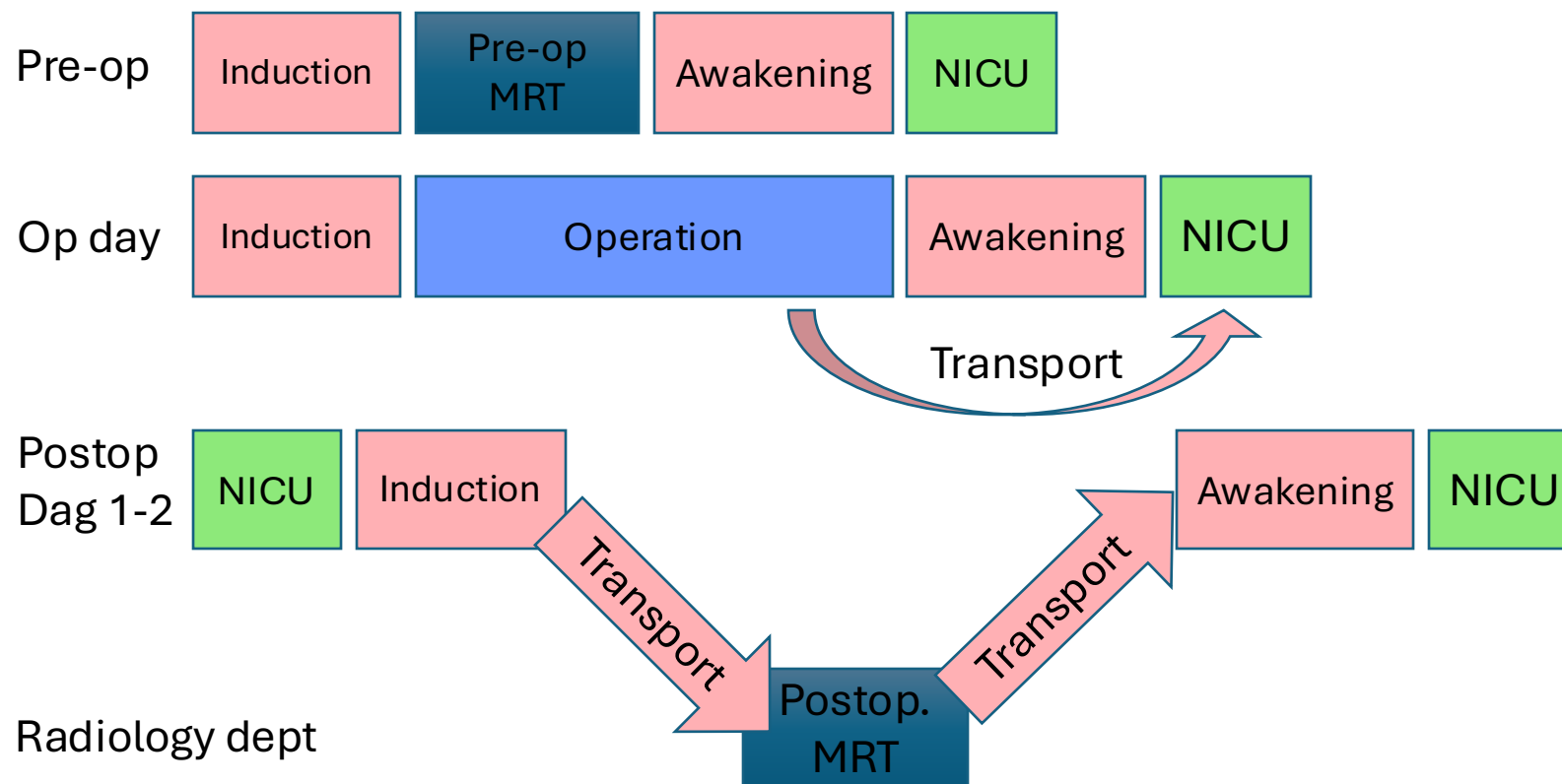
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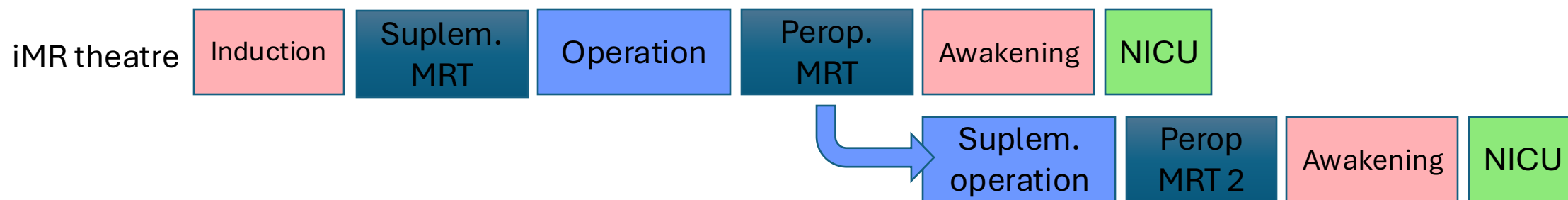
iMR in Uppsala



Workflow pediatric tumor



Workflow pediatric tumor with iMR



Workflow pediatric tumor with iMR



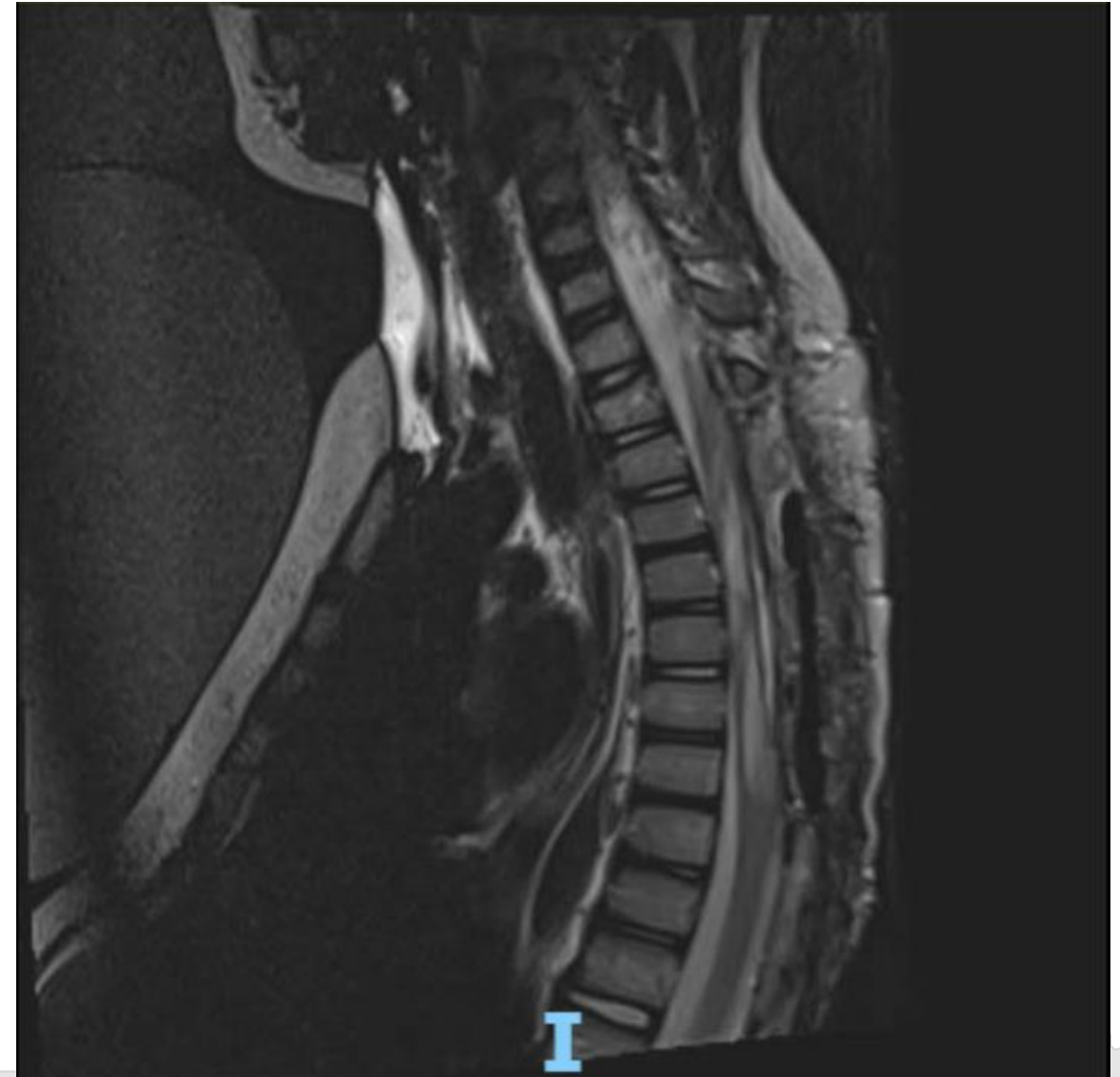
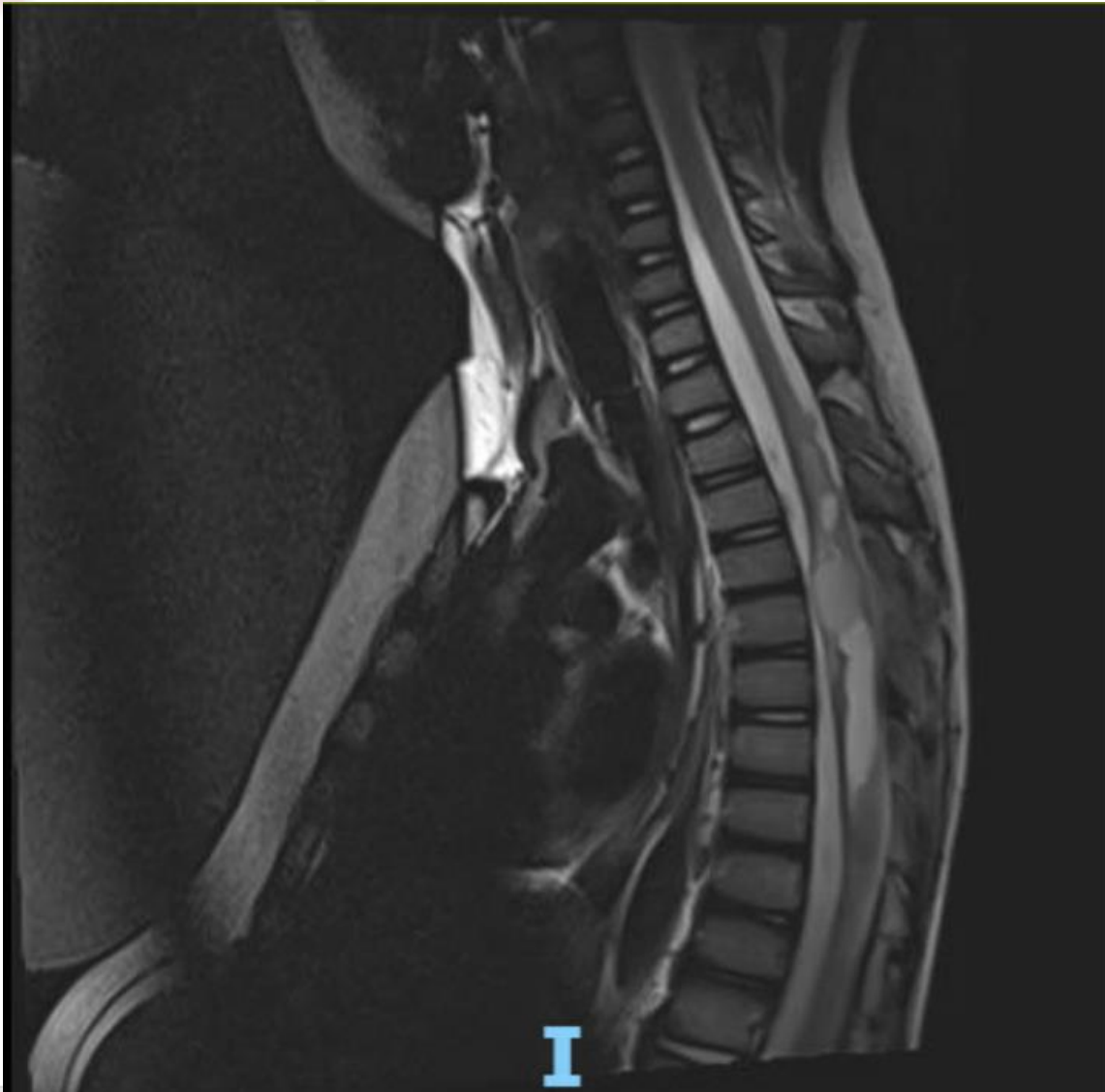


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Workflow pediatric tumor with iMR



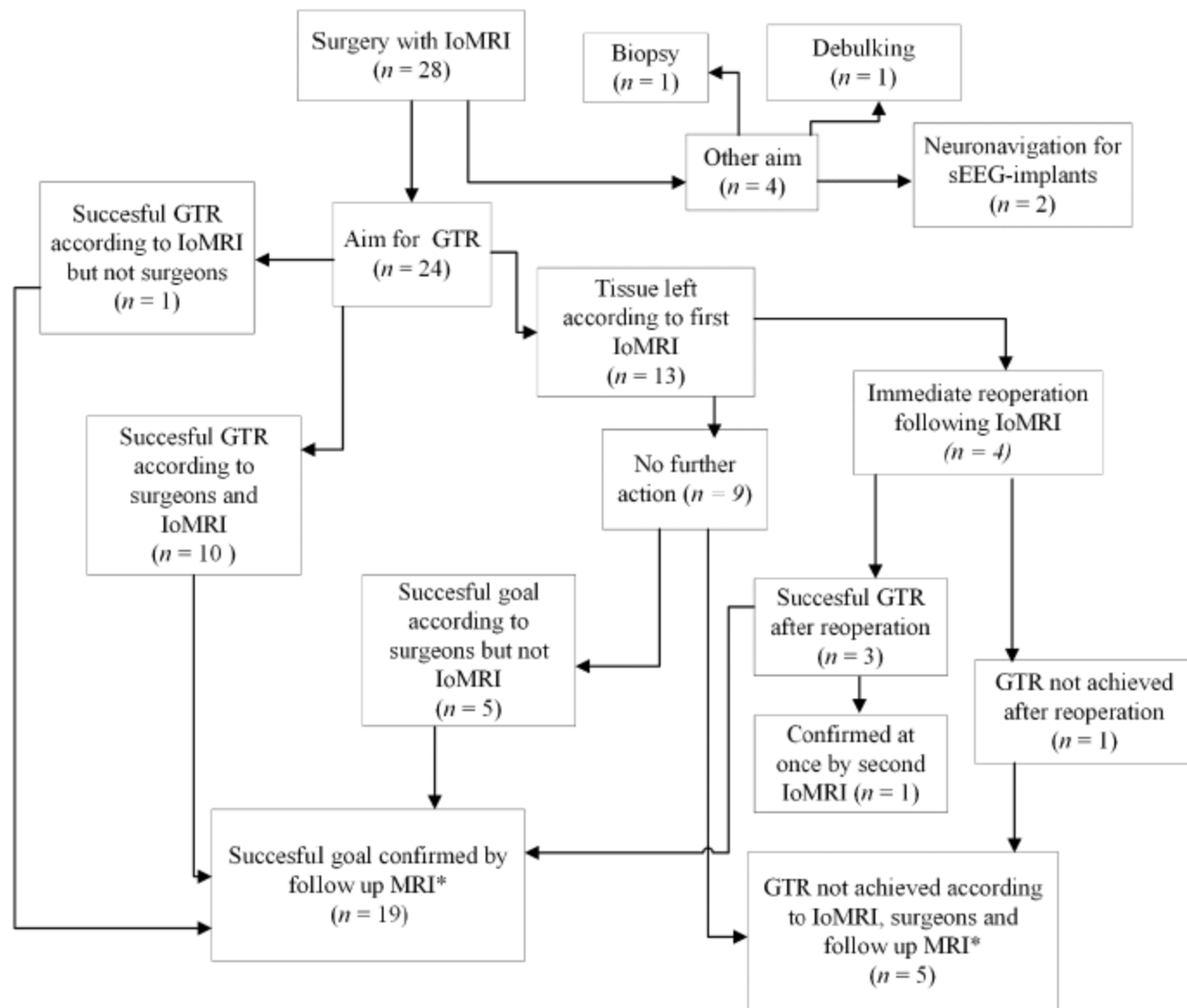


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Peroperative outcome and IoMRI



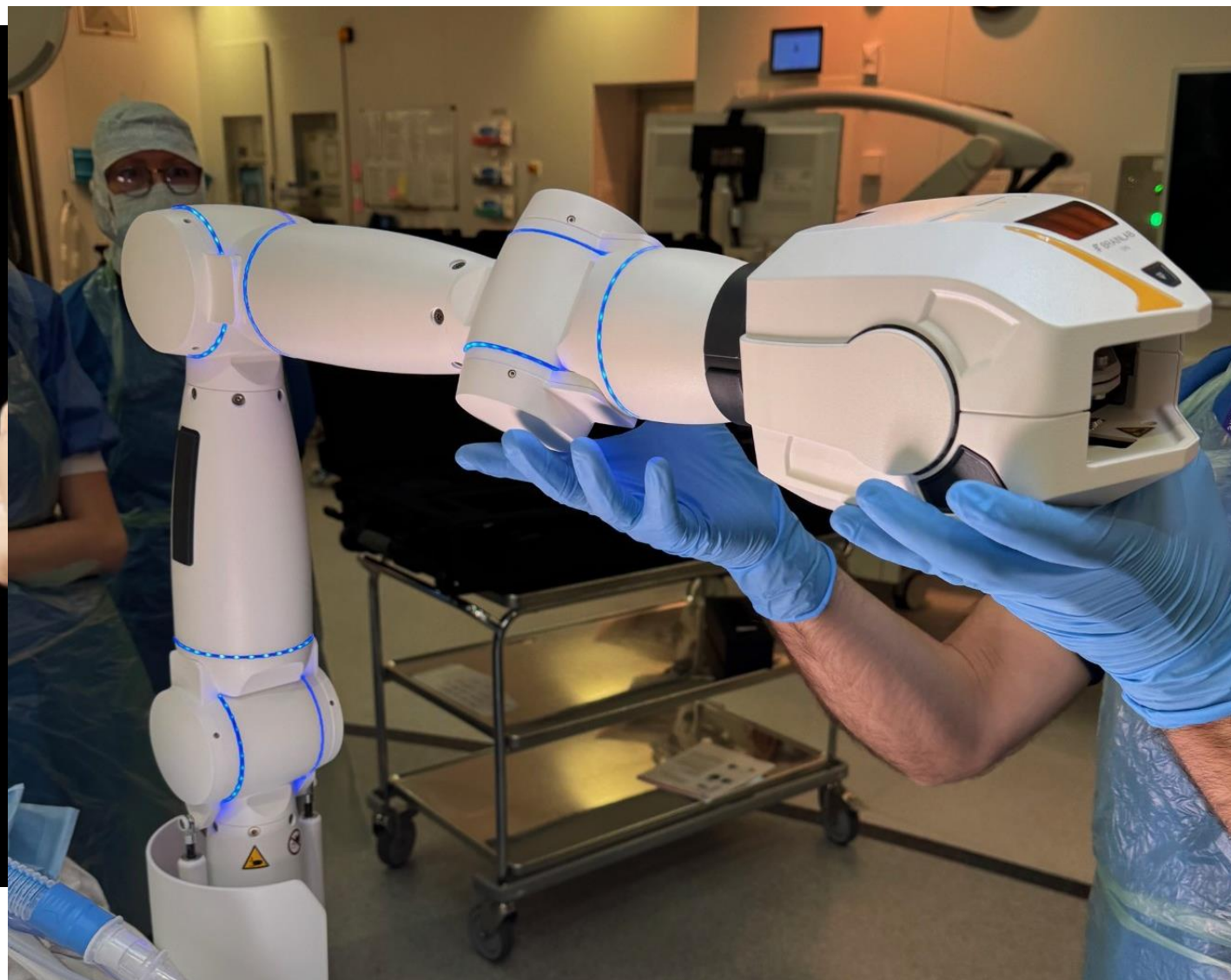


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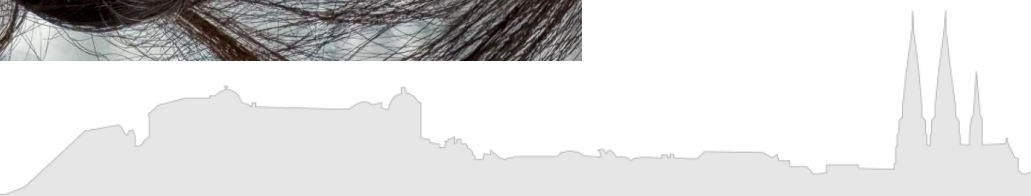


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Workflow SEEG



Workflow SEEG





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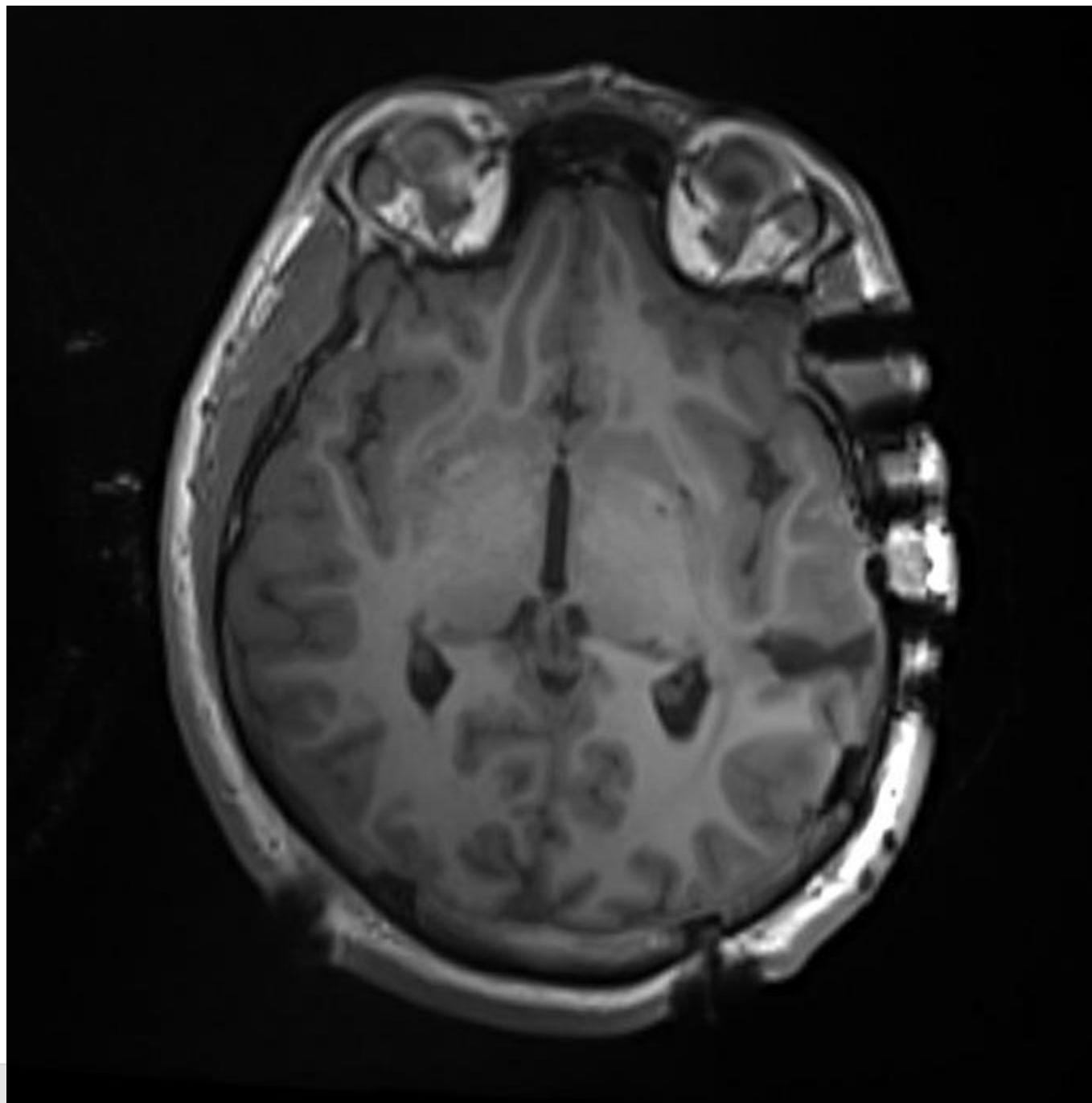
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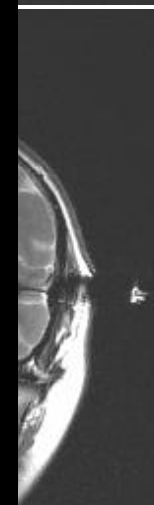


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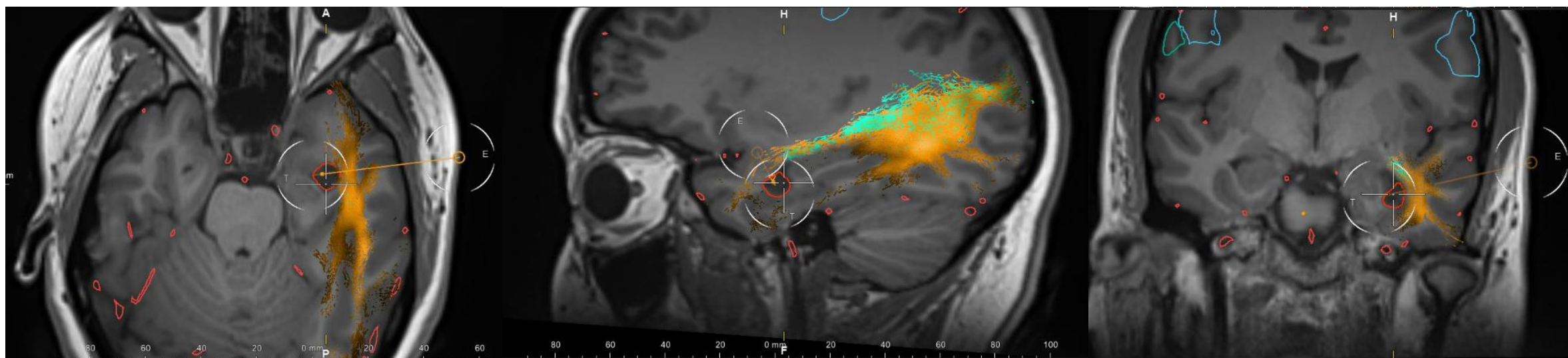


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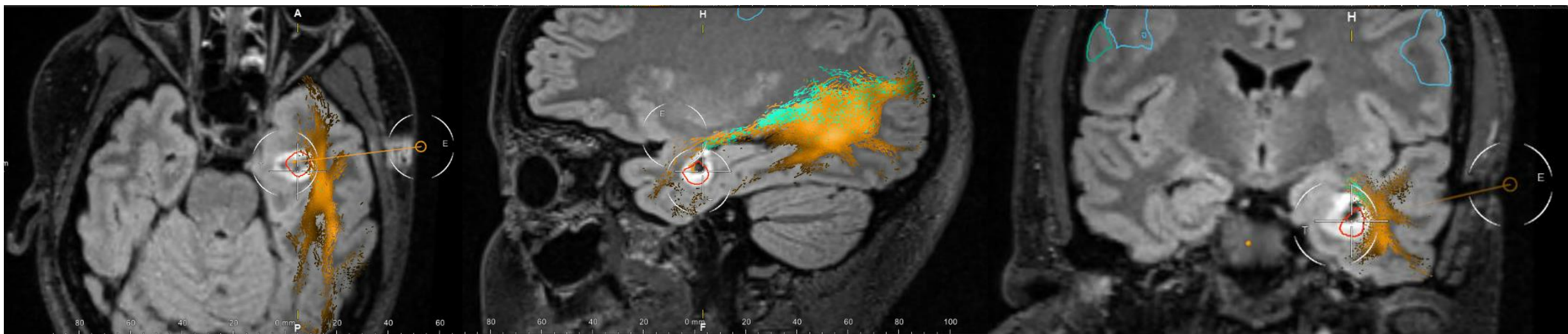


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Workflow Laser ablation (LITT)



Workflow Laser ablation (LITT)



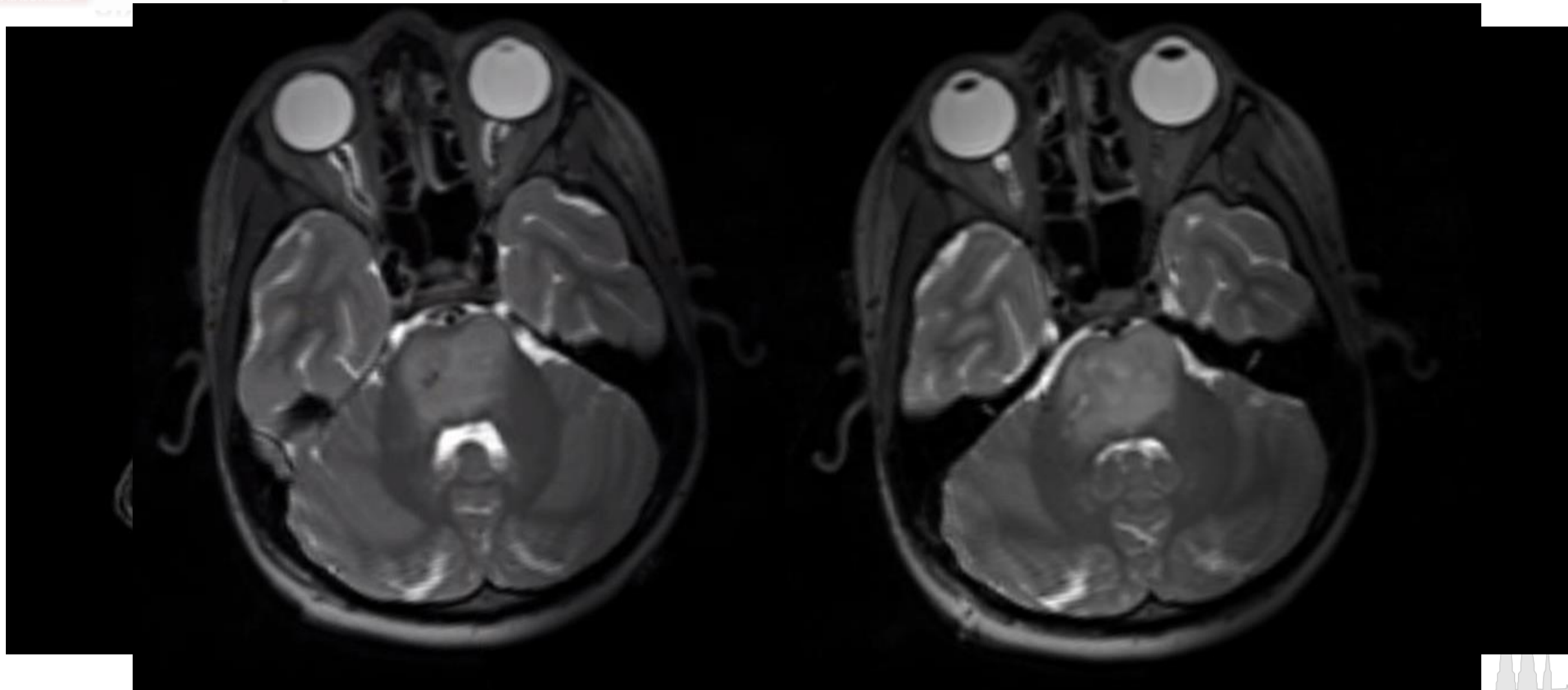


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Stereotactic biopsy





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Thank you for your attention!

