

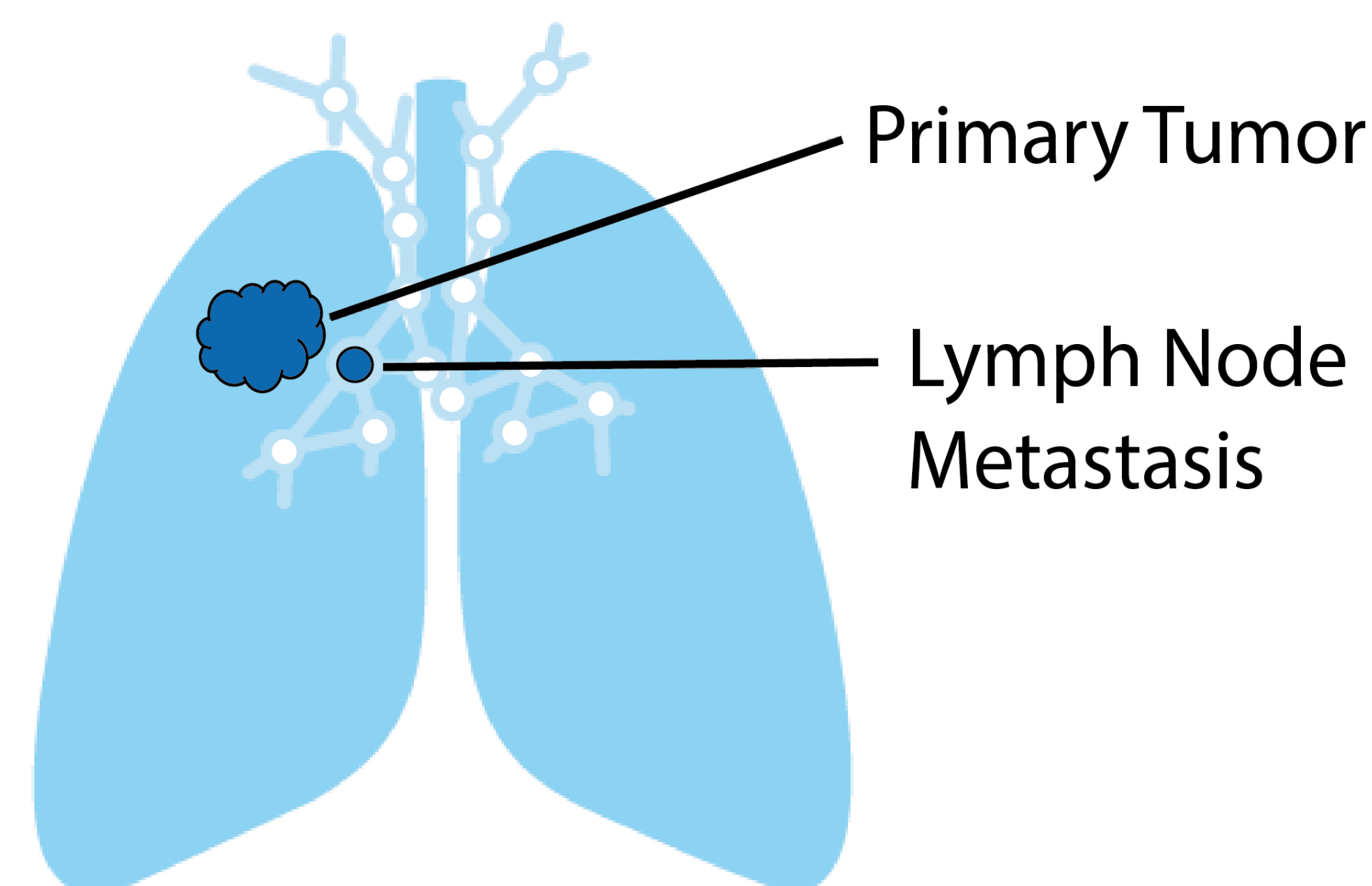
US-guided Injection Tool Testing for Navigation Bronchoscopy Mediated Sentinel Lymph Node Procedure

Desi K.M. ter Woerds¹, Roel L.J. Verhoeven¹, Erik H.J.G. Aarntzen², Erik H.F.M. van der Heijden¹

¹Radboudumc, Department of Pulmonary Diseases, Nijmegen, the Netherlands ²Radboudumc, Department of Medical Imaging, Nijmegen, The Netherlands

Introduction

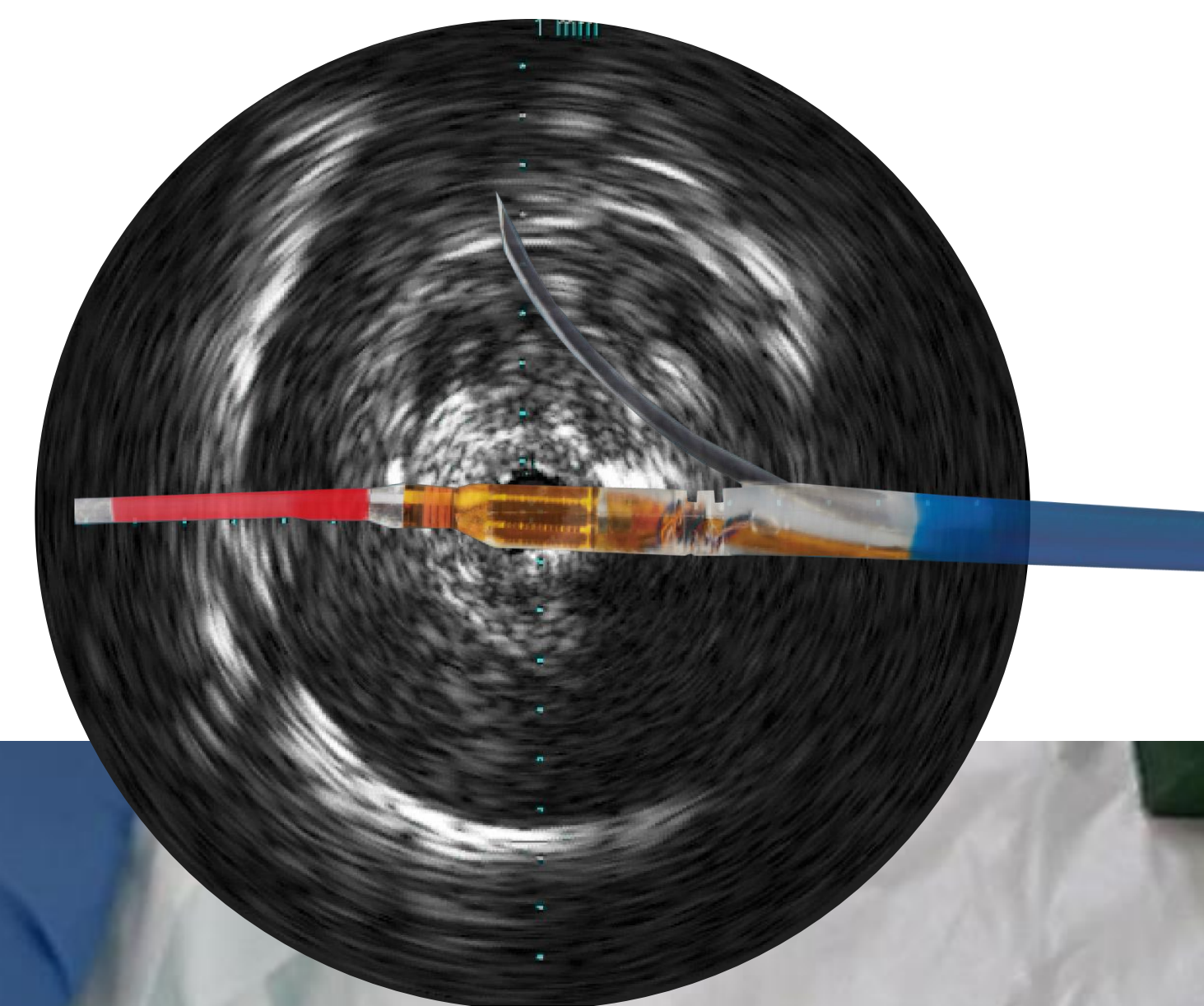
- SABR or **surgery** is standard of care in early-stage lung cancer
- However, a **9-28% recurrence rate** is seen only 2 years after treatment
- Identify lymph nodes where metastasis are most likely to occur: a **SLN procedure**



Methods

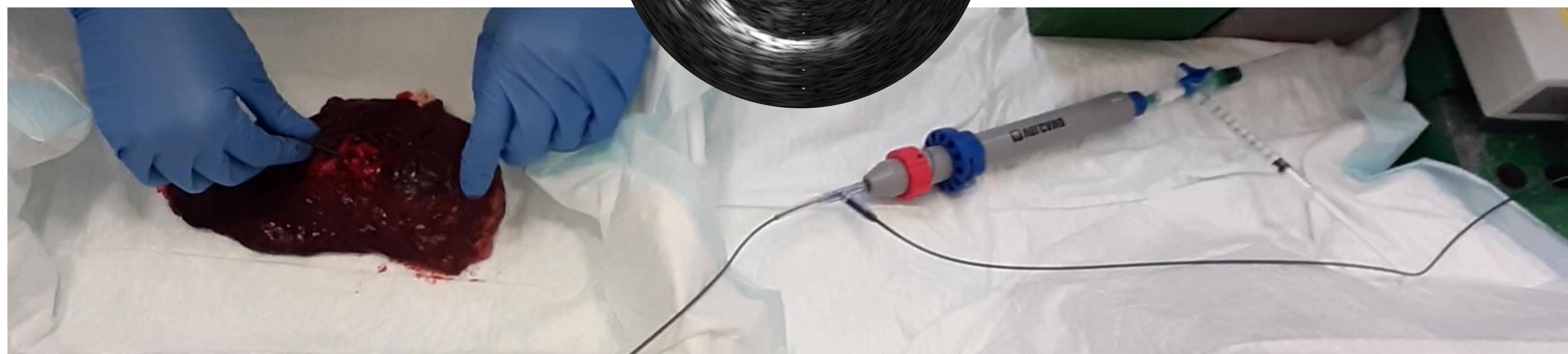
- **10 patients included** and asked for informed consent to use their tissue after lung surgery
- Inject ^{99m}Tc-ICG-nanocolloid under **radial US-guidance of Pioneer Plus catheter**
- **Intra- and peritumoral injections** in a semi-randomized fashion

Tracer injection on US-imaging

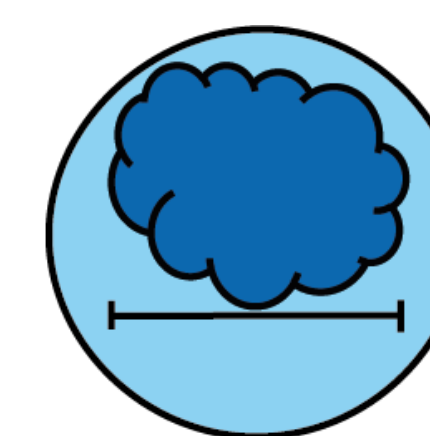


Objective

Feasibility of **intra- and/or peritumoral** tracer injections using a **Pioneer Plus** catheter to perform an endobronchial **SLN procedure**.



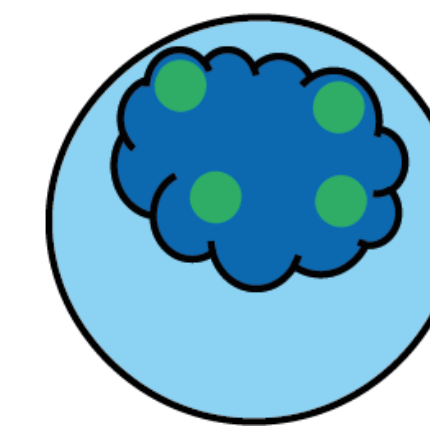
Results



16-66 mm



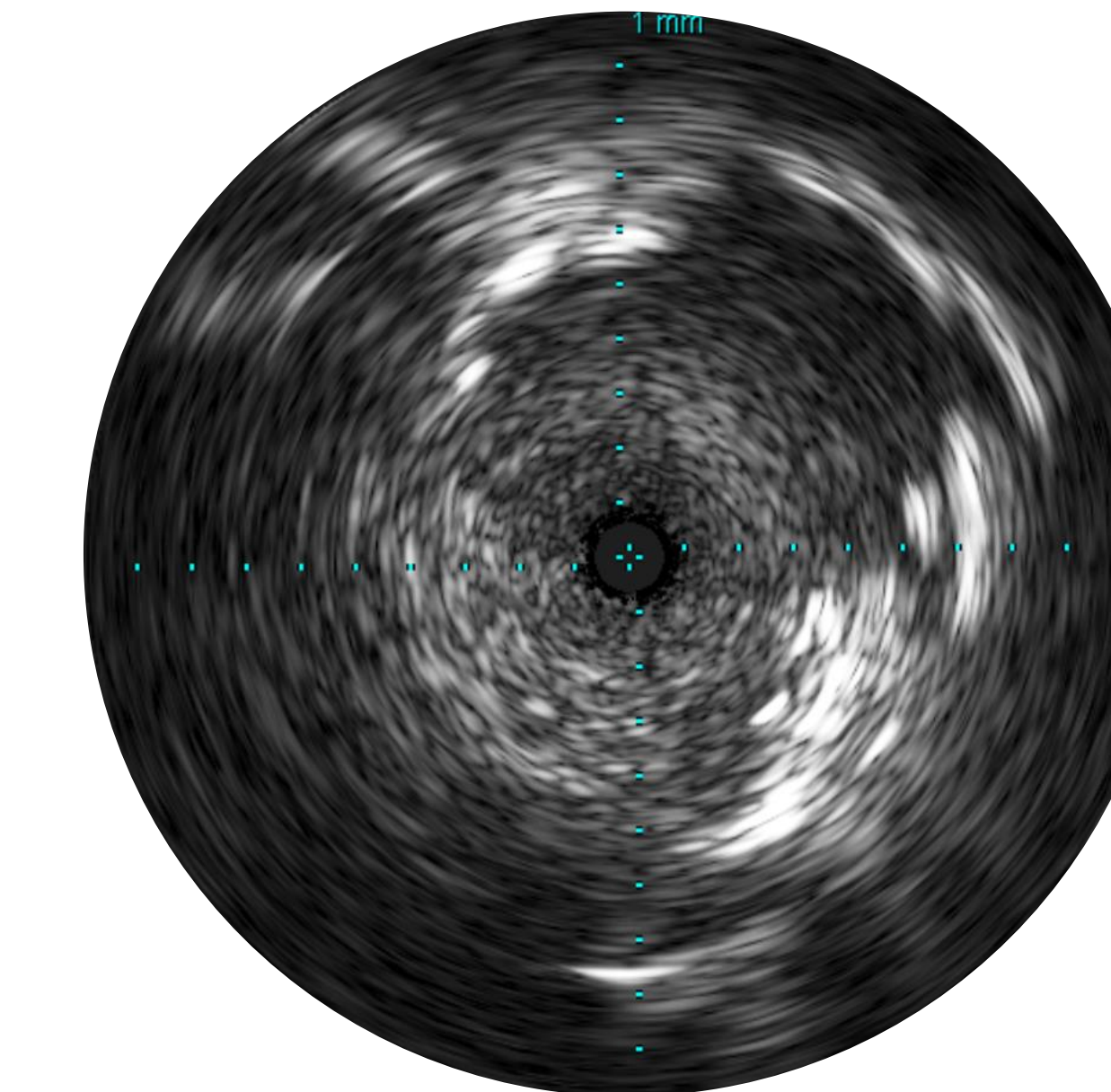
0.3-1.2 ml
0.1-0.4 ml



3-6 depots

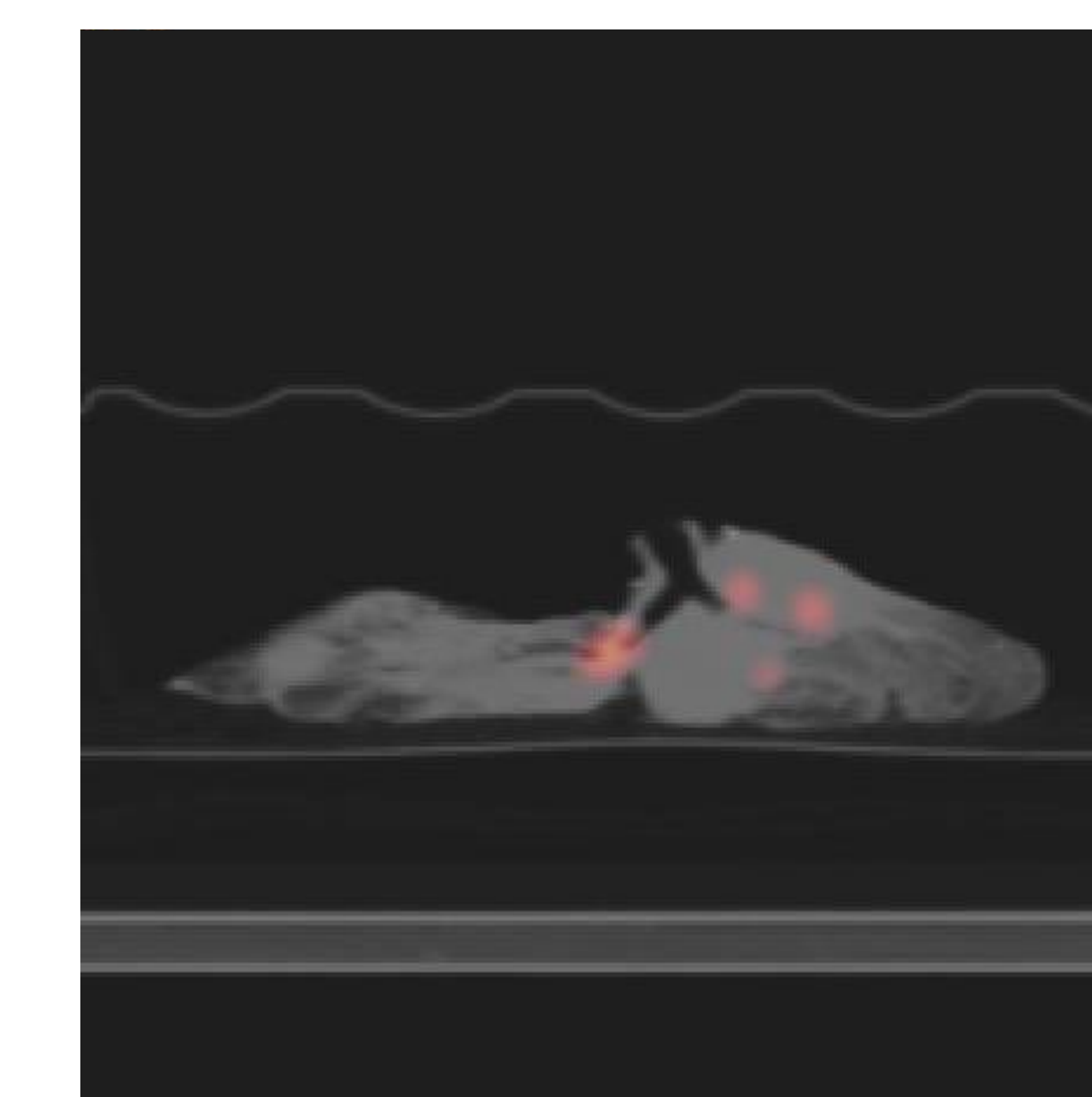
IVUS-imaging

Tumor visibility

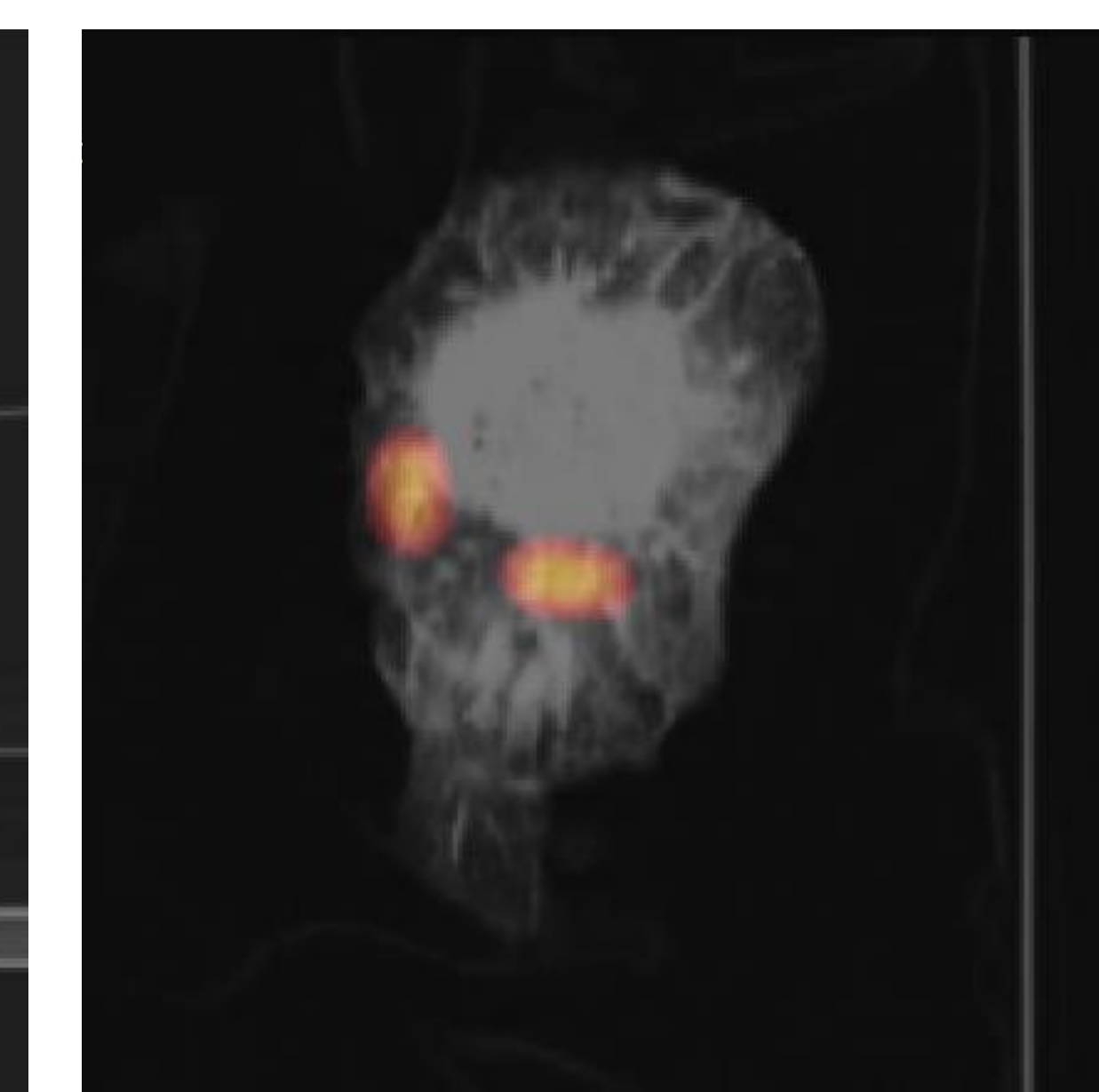


SPECT/CT-imaging

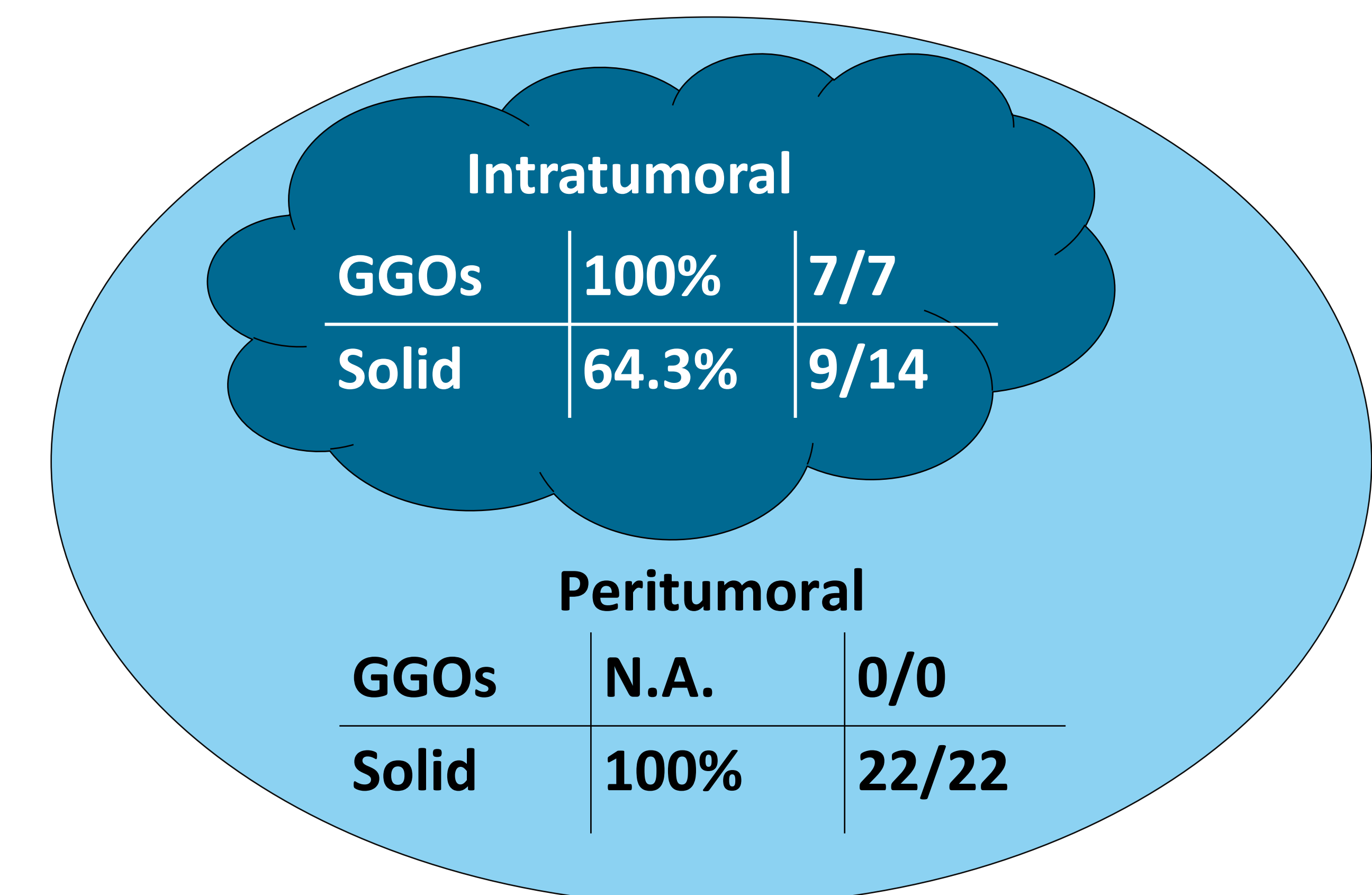
Intratumoral injections



Peritumoral injections



Injection successfulness



Conclusion

- **SLN procedure** during a navigation bronchoscopy seems **feasible**
- **Peritumoral injections** are more successful than intratumoral injections
- Tumor and injection visible on **radial US-imaging of Pioneer Plus**
- To be continued...