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Expert Meeting**

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Gd-EOB-DTPA Binding T1 Mapping Phase Show Potential To Be A Way To Evaluate Per-Unit Liver Function

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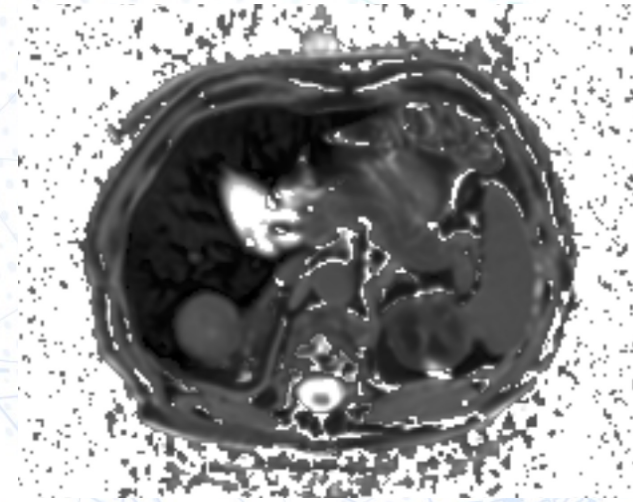
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Background/Aim

- Liver function evaluation is an important clinical demand in the diagnosis and treatment for HCC patient.
- Quantification of per liver-unit function plays a decisive role in precise planning and navigation of hepatocellular carcinoma surgery.

Methods

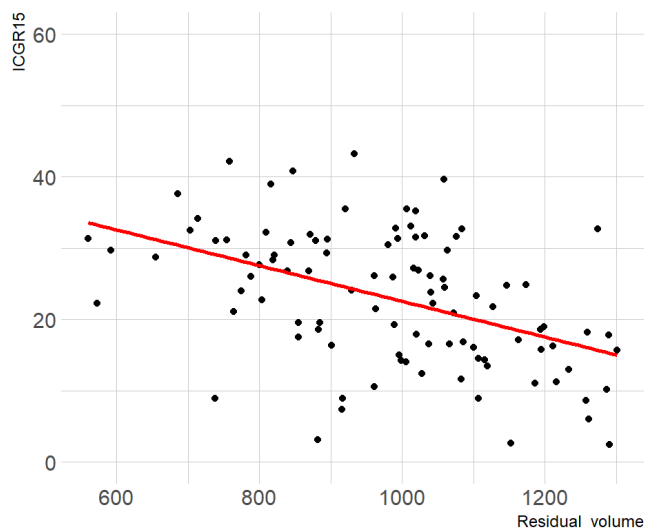
- We enrolled 104 patients with pathologically diagnosed primary hepatocellular carcinoma. The correlation with ICG15 was calculated using residual liver volume, MR Elastography c value, and Gd-EOB-DTPA binding T1 mapping phase, respectively.



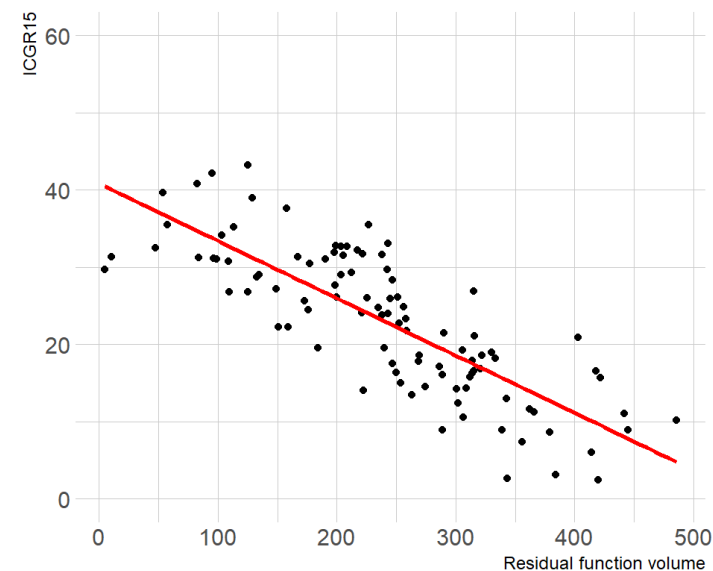
T1 mapping phase in Gd-EOB-DTPA MRI

Results

- Gd-EOB-DTPA binding T1 mapping phase gets better correlation with ICG15 (Person_r = -0.8046) than residual liver volume (Person_r = -0.4631). The AUC which using T1-mapping phase data to detect patients with ICG15 greater than 14% is 0.93



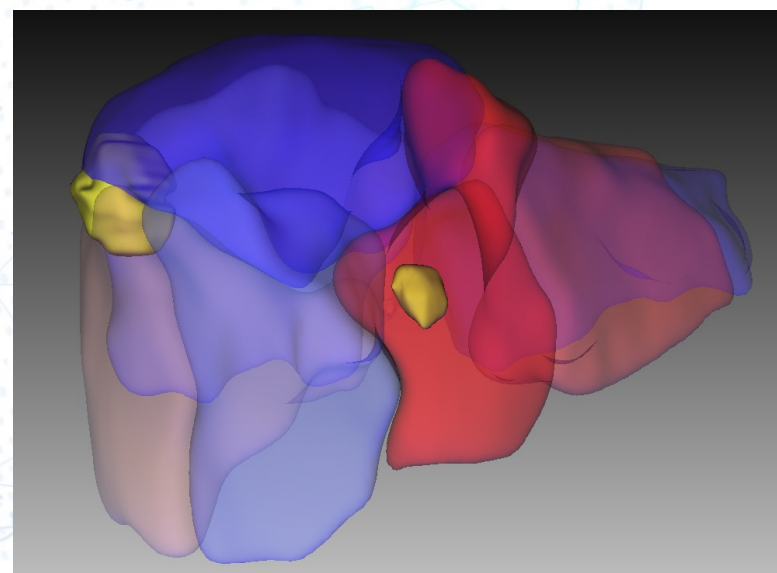
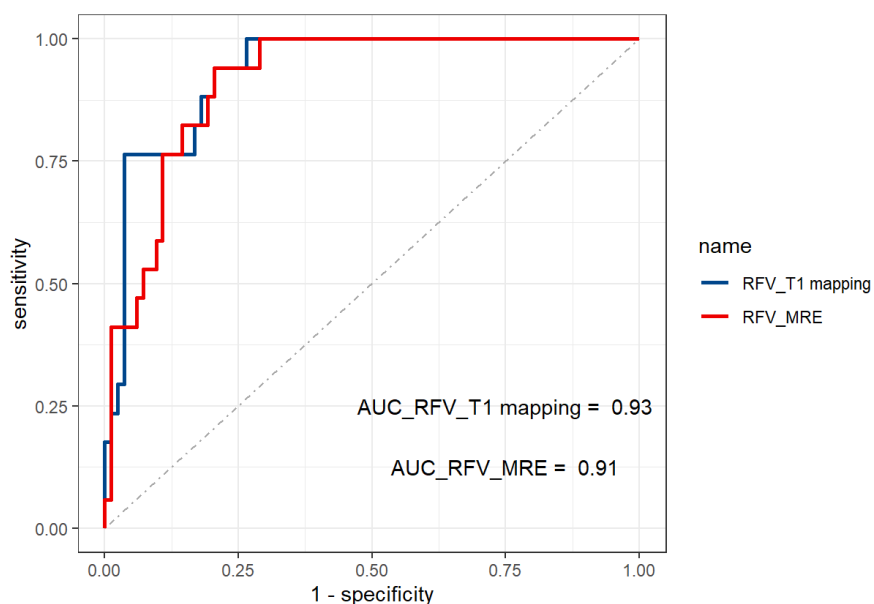
RLV vs ICG 15(-0.4631)



T1 mapping vs ICG 15(r = -0.8046)

Conclusions

- T1-mapping show better efficiency when evaluating liver function than residual liver volume, and T1-mapping phase data may quantitatively evaluate per liver-unit function to optimize hcc surgical plan.



AUC T1 mapping predict ICG 15 >14%

T1 mapping evaluate liver function by segment (red means better liver function)