

ALPPS

Associating liver partition and portal vein ligation for staged hepatectomy



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Right Portal Vein Ligation Combined With In Situ Splitting Induces Rapid Left Lateral Liver Lobe Hypertrophy Enabling 2-Staged Extended Right Hepatic Resection in Small-for-Size Settings

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Aiman Obed, MD,¶ and Hans J. Schlitt, MD*

EDITORIAL

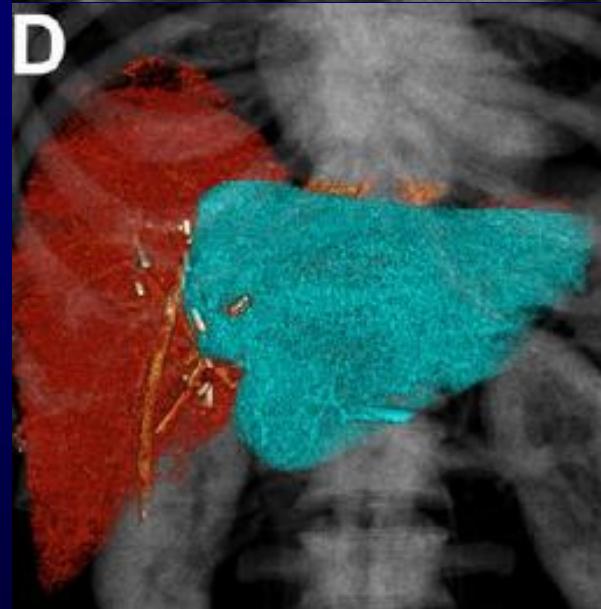
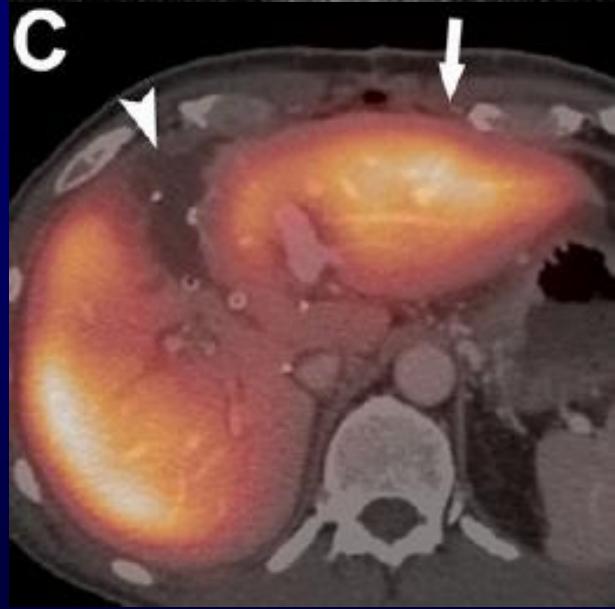
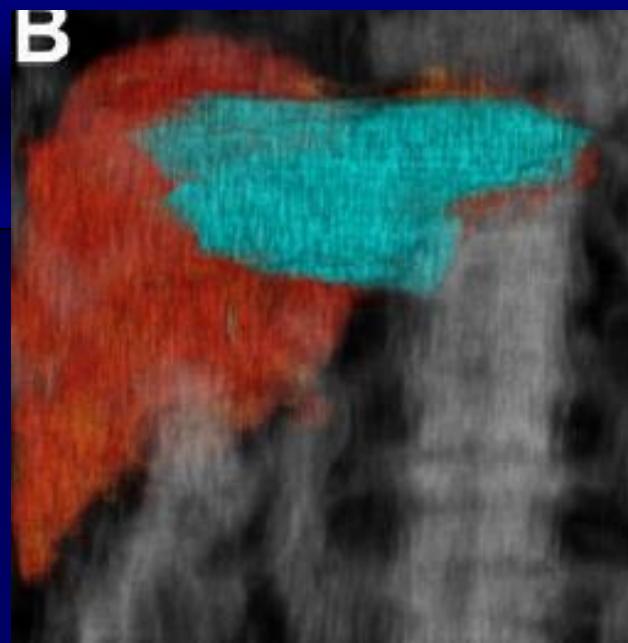
Playing Play-Doh to Prevent Postoperative Liver Failure

The “ALPPS” approach

Eduardo de Santibañes, MD, PhD,* and Pierre-Alain Clavien, MD, PhD†

How to Avoid Postoperative Liver Failure: A Novel Method

**Eduardo de Santibañes · Fernando A. Alvarez ·
Victoria Ardiles**



Three cases – Buenos Aires
Hypertrophy - 40-83%
After 6 days

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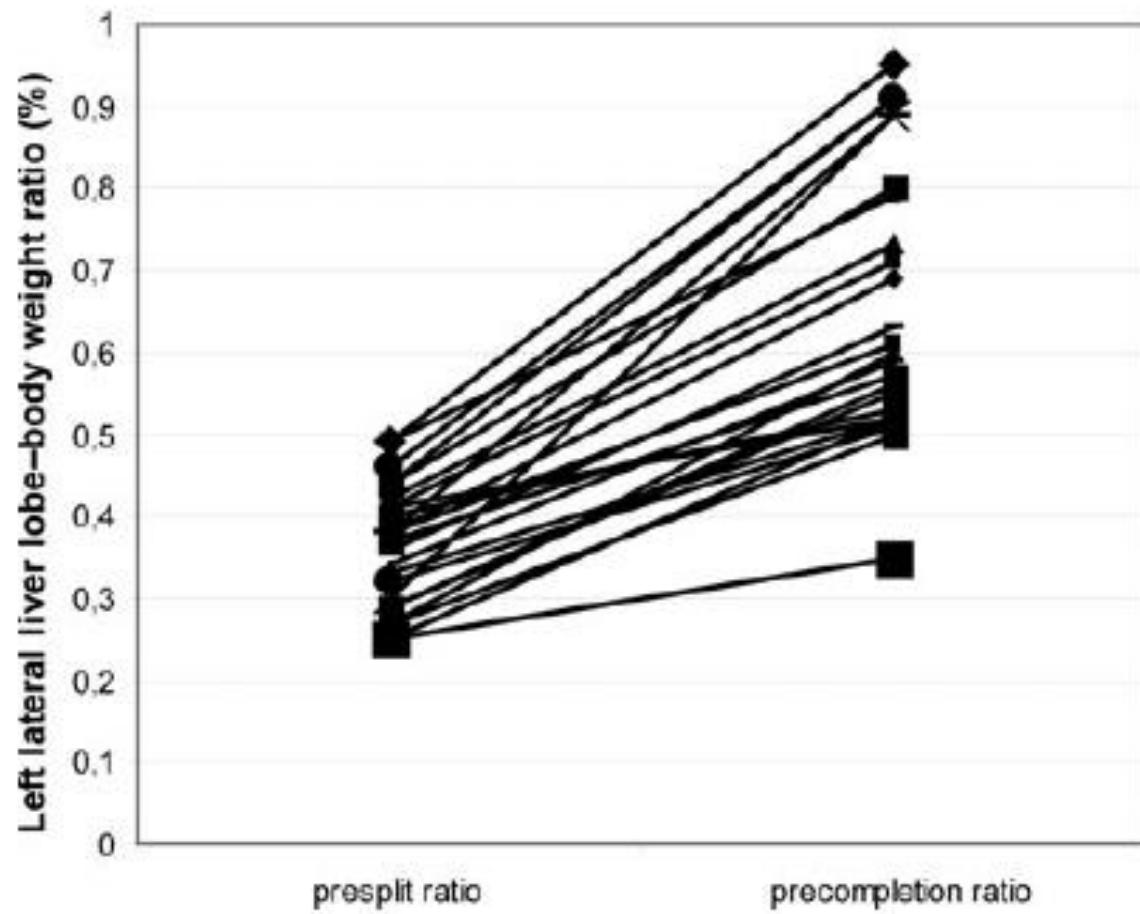


FIGURE 3. Individual increase in left lateral liver lobe-volume to body weight ratio (LLL/BW ratio). The red line marks a LLL/BW ratio of 0.5%, which was regarded as the resectability cut-off.

Case report

30 years-old, female

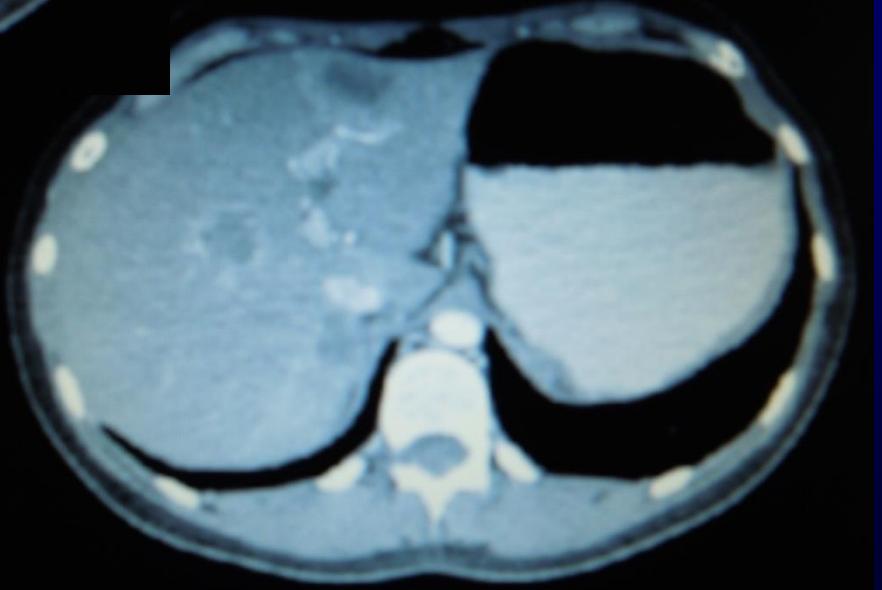
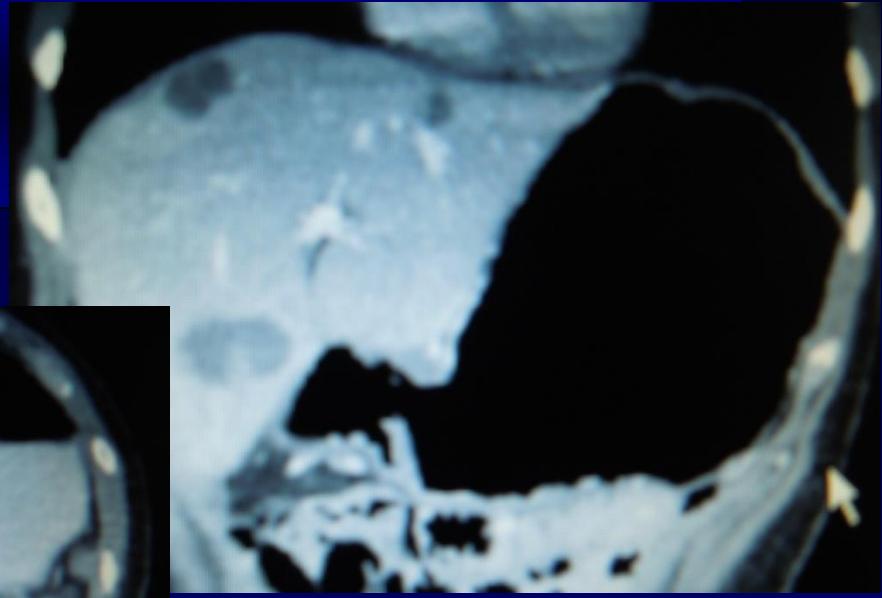
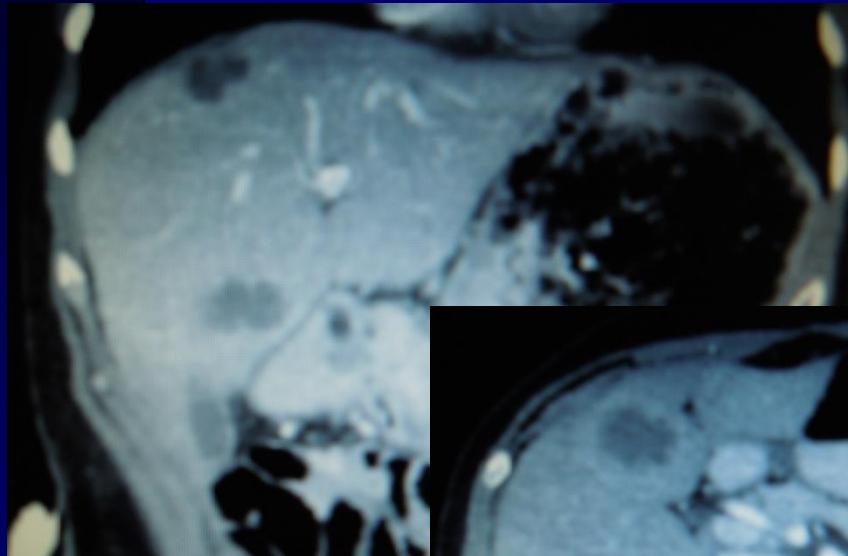
Left colectomy – 6 months ago

Chemotherapy – 6 cycles - FOLFOX

CT scan:

Liver metastases

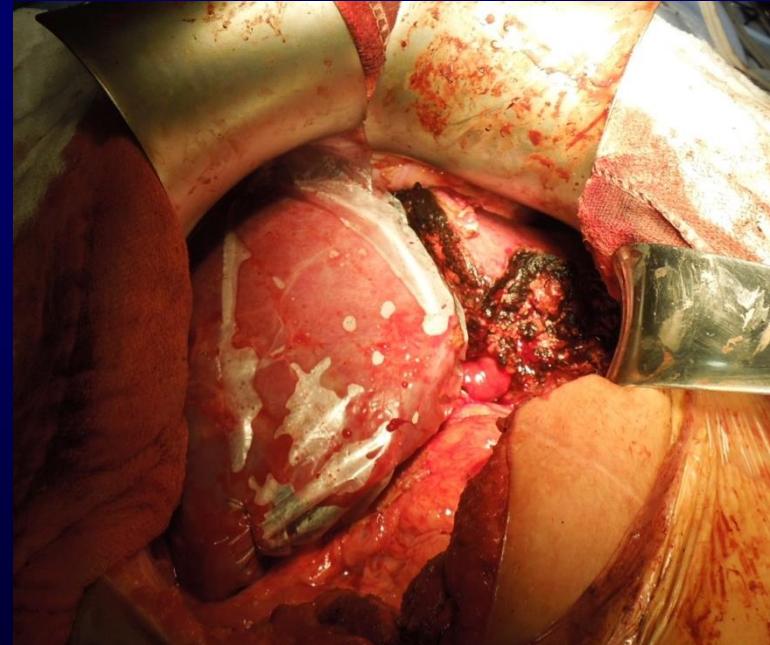
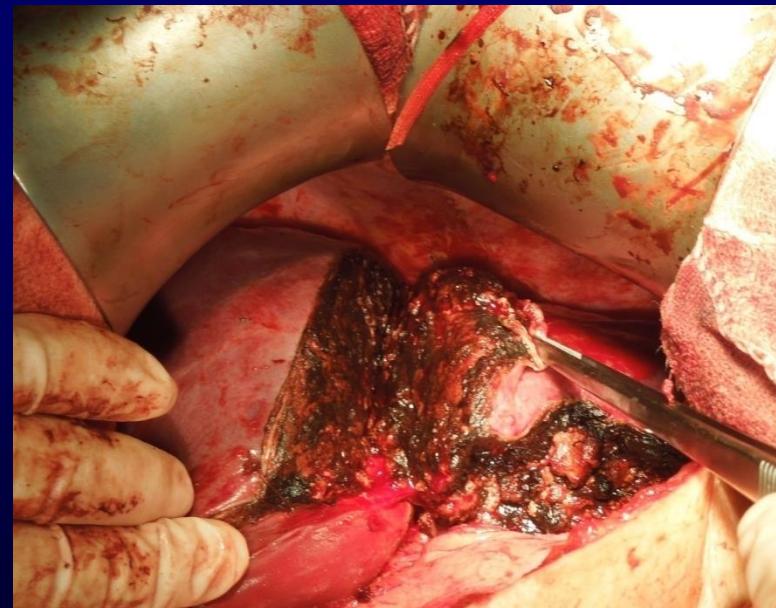
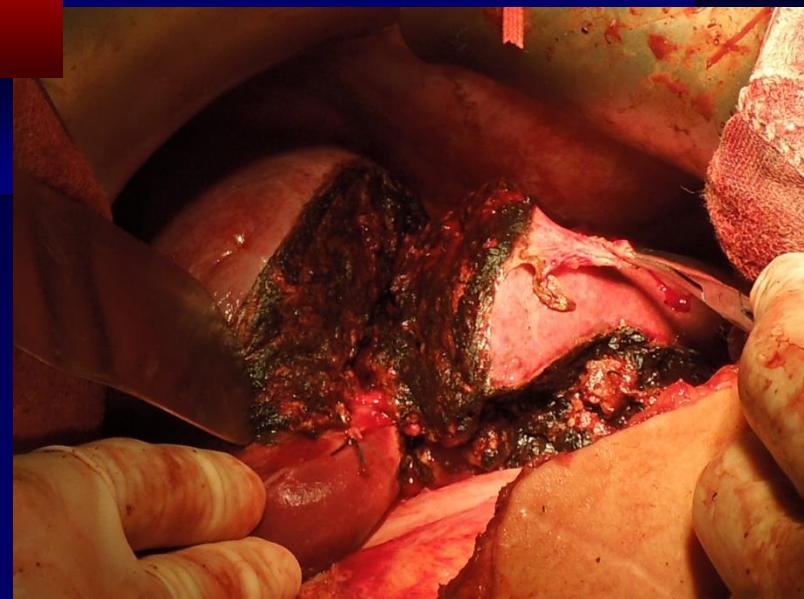
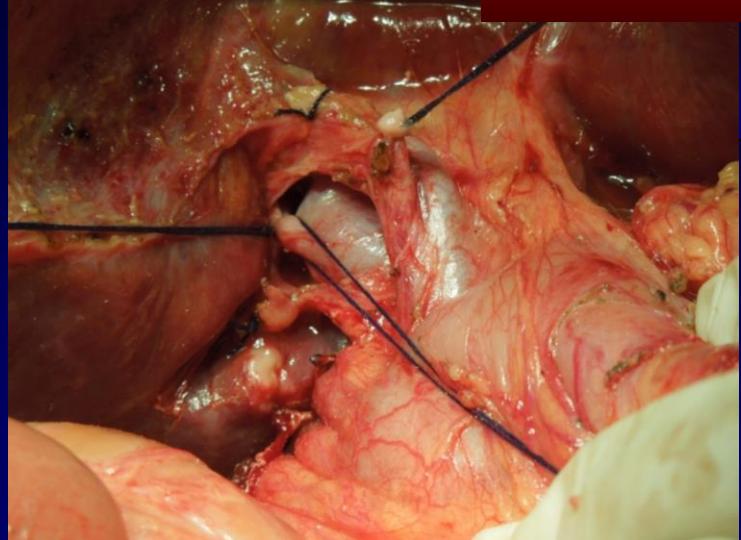
Segments: III, IV, V, VI, VIII, Caudate



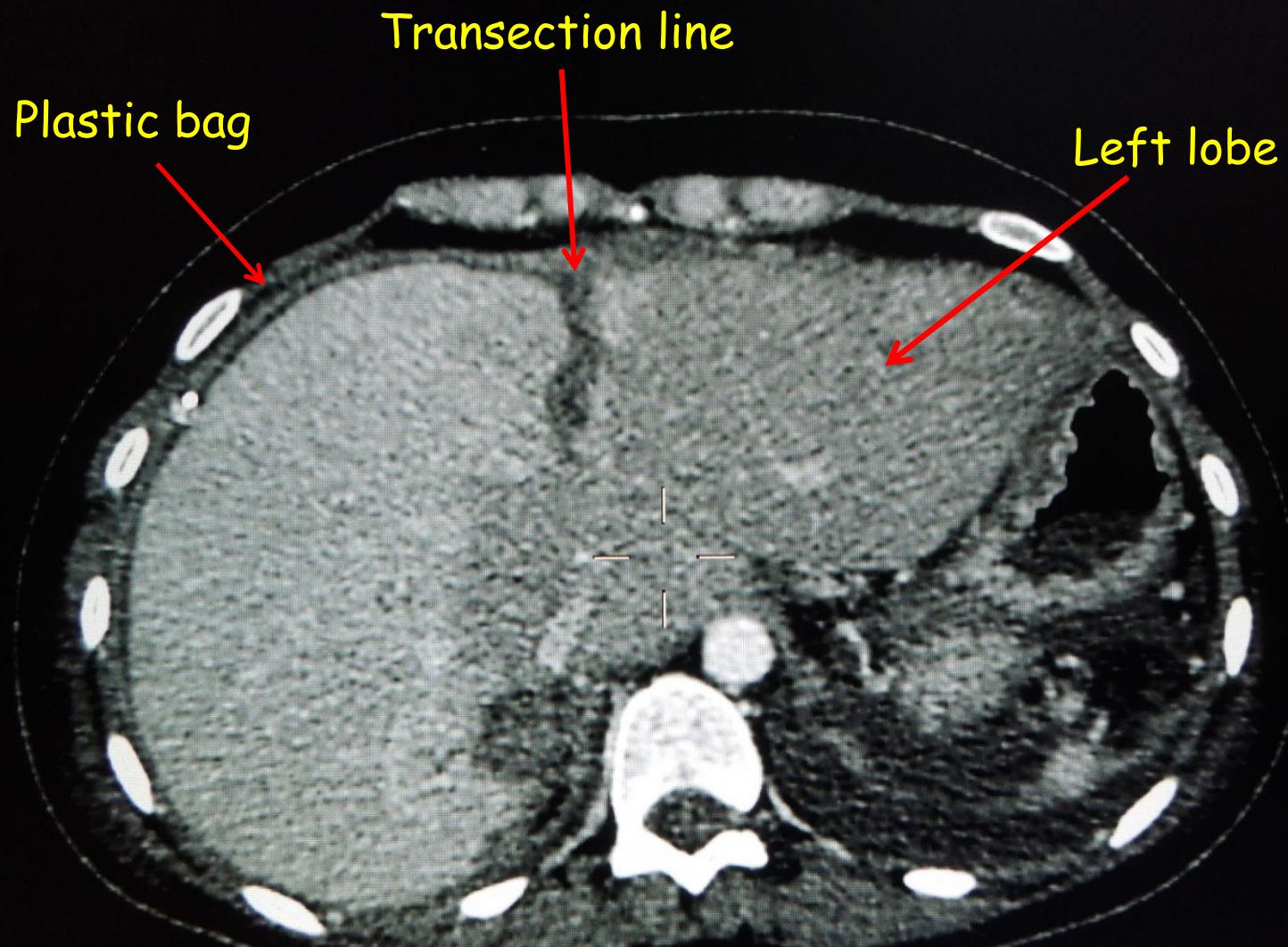
FIRST STEP

- Resection lesion – Segment III
- Right portal vein ligation
- Liver transection
 - 1 cm falciform ligament
 - Vena cava
- Ligation of seg IV pedicle
- Ligation middle hepatic vein
- Plastic bag to protect the liver
- Drainage

FIRST STEP



- Intensive care unit
- Antibiotics
- Tomography (after 8 days)



Tomography

Before



After 8 days

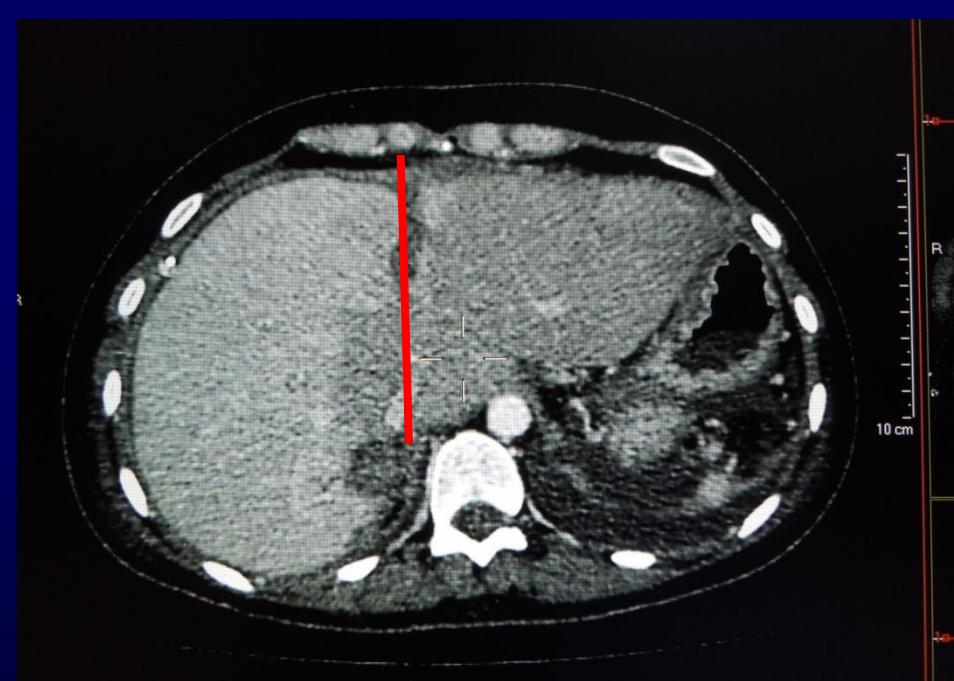


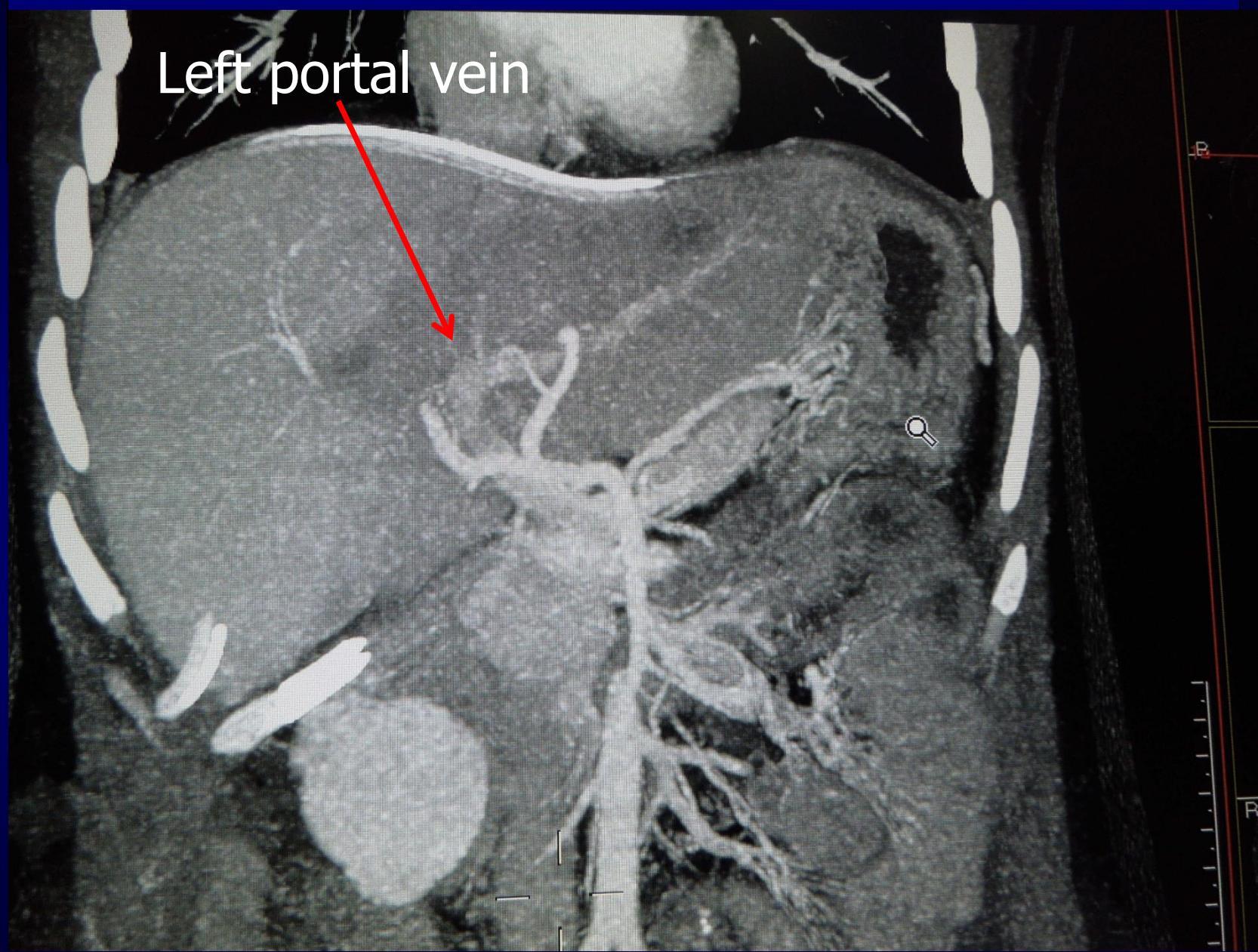
Tomography

Before



After 8 days



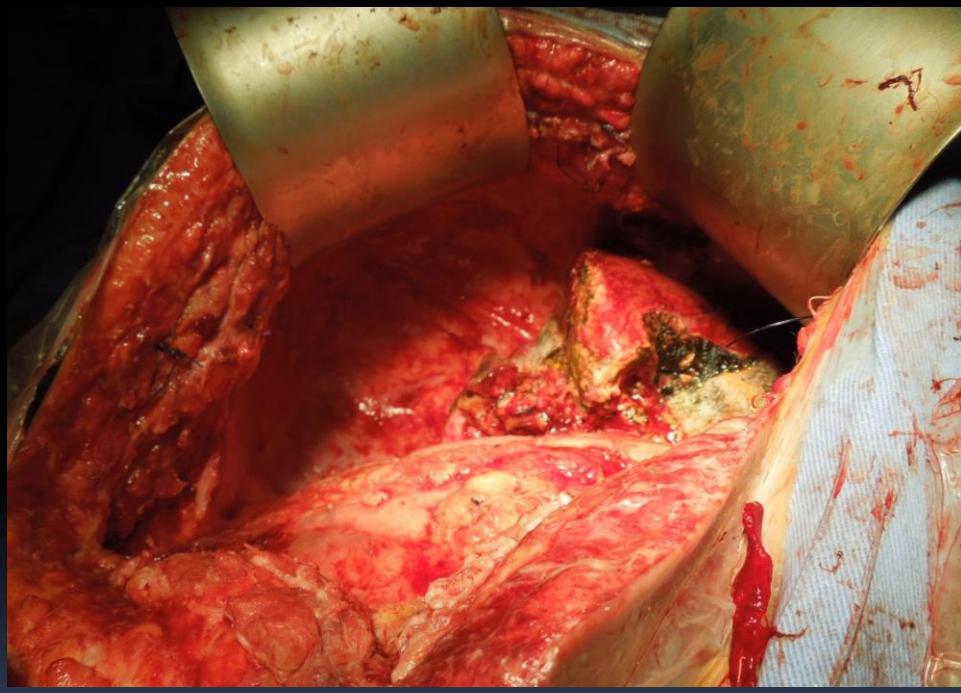
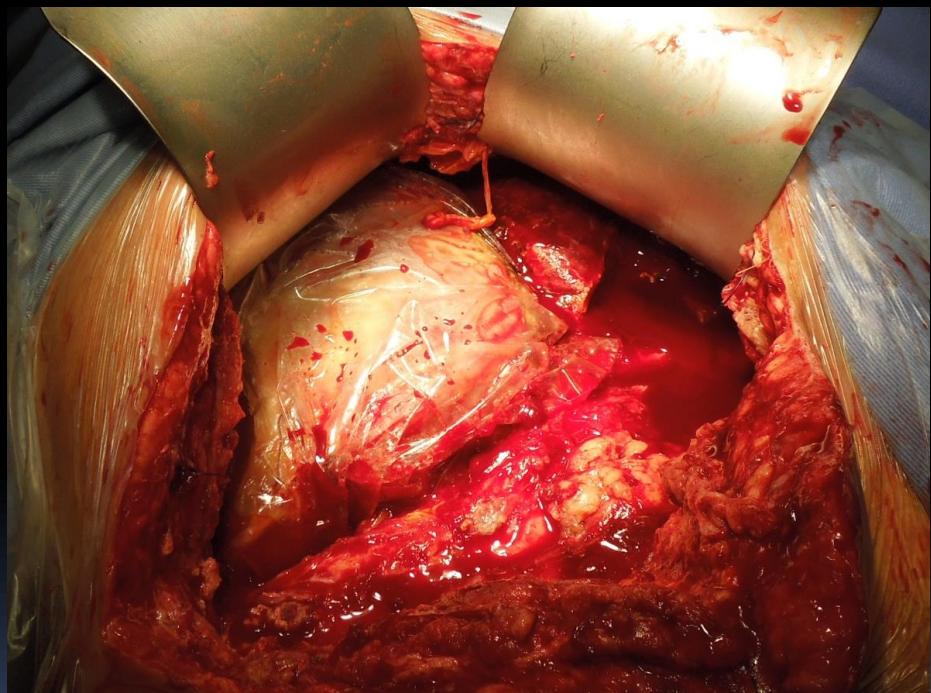


Left portal vein

SECOND STEP

- After 13 days
- Laparotomy
- Plastic bag is removed
- Right pedicle is ligated
- Completion hepatectomy
- Tachosil®
- Abdomen is closed

SECOND STEP



- Intensive care unit
- Recovery uneventful
- Discharge after 9 days

Conclusions

"In ALPPS, the expertise in complex liver resection is as important as the right indication for colorectal liver metastases".



Thanks!