

Quelles sont les indications de TH pour MCR



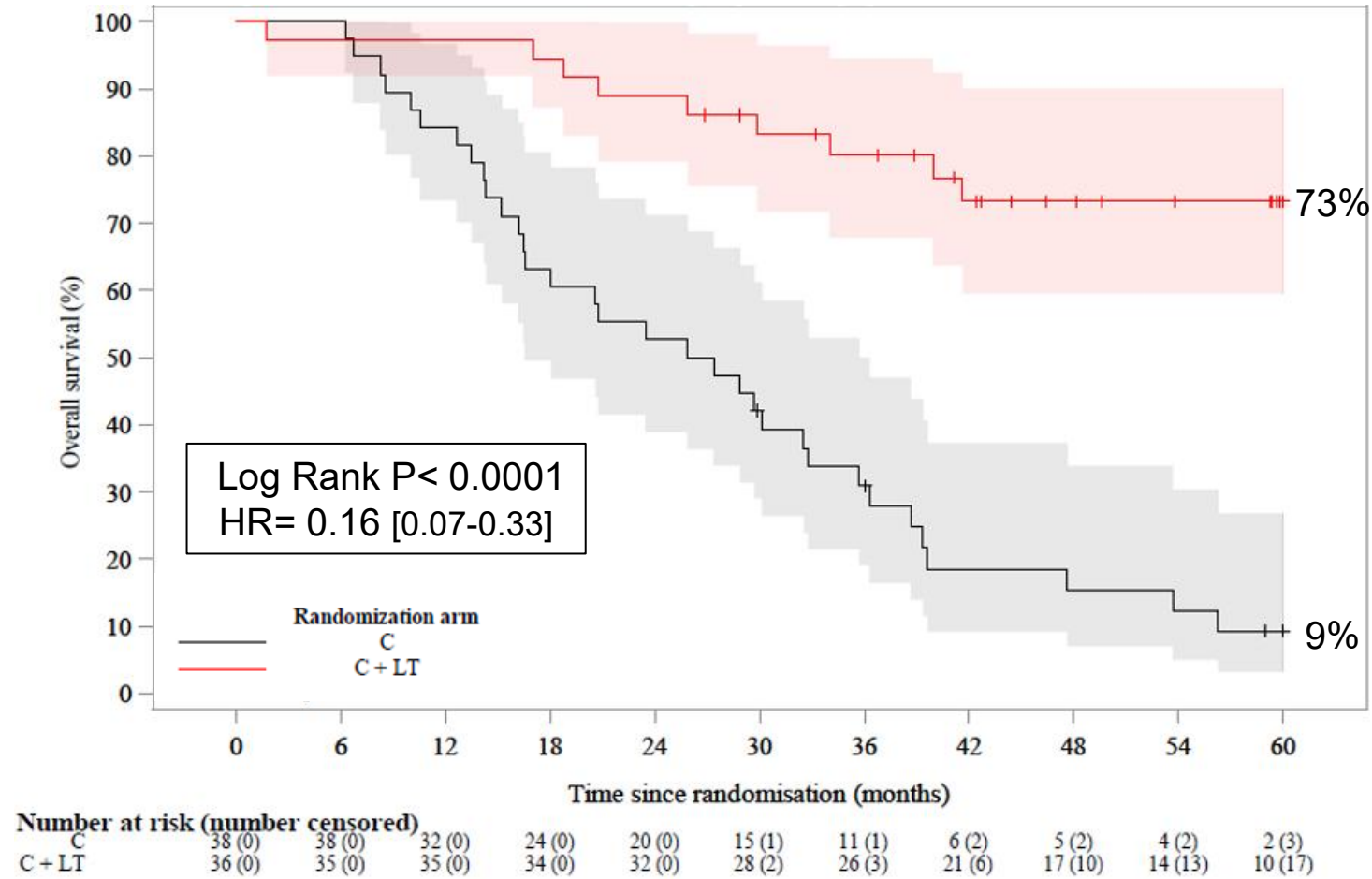
Insights from the Transmet trial

- ❑ Les indications actuelles: malades non résécables
- ❑ Les modifications potentielles
- ❑ L'extension aux malades marginalement résécables ?

TransMet Trial : Eligibility criteria

- ≤ 65 years
- Good performance status (ECOG 0 or 1)
- Confirmed unresectability of CLM by expert surgeons
- Gold standard Resection of the primary
- No extrahepatic disease
- Partial Response or Stability with Chemo : ≥ 3 months, ≤ 3 lines
- No BRAF mutation
- CEA < 80 ng/ml or 50% decrease from baseline
- Platelets count > 80.000 and white blood cell count > 2500

TransMet Trial : Primary Endpoint 5-Yr OS (Per Protocol)



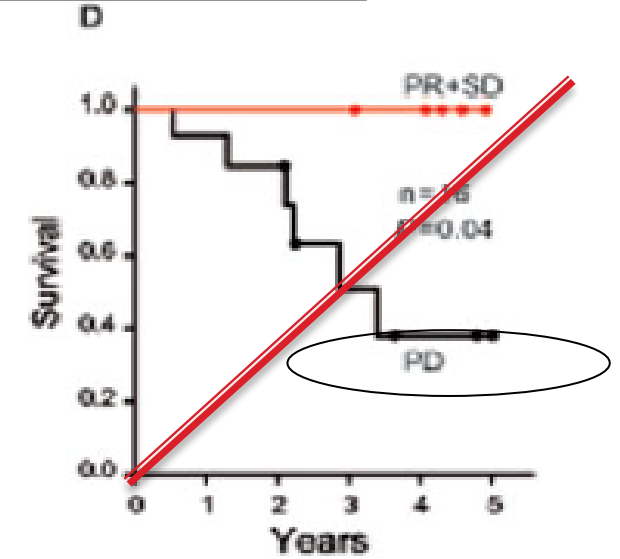
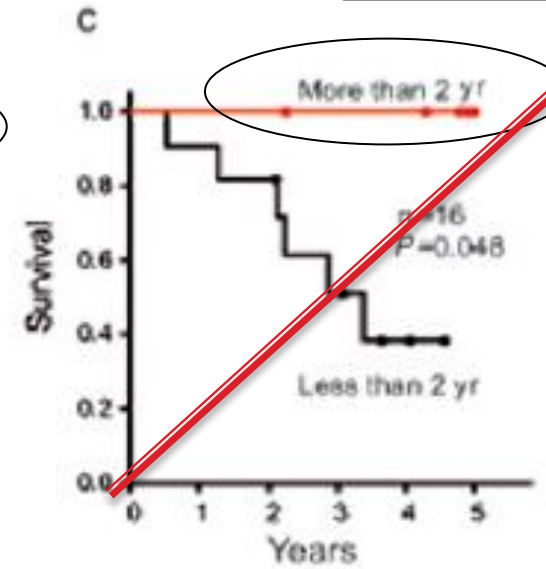
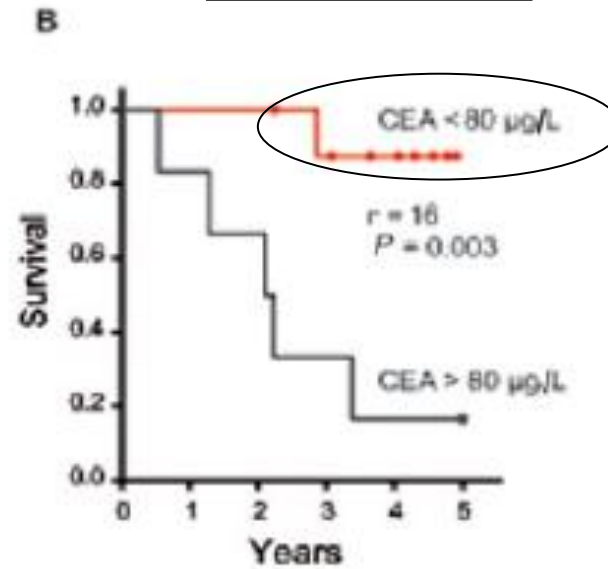
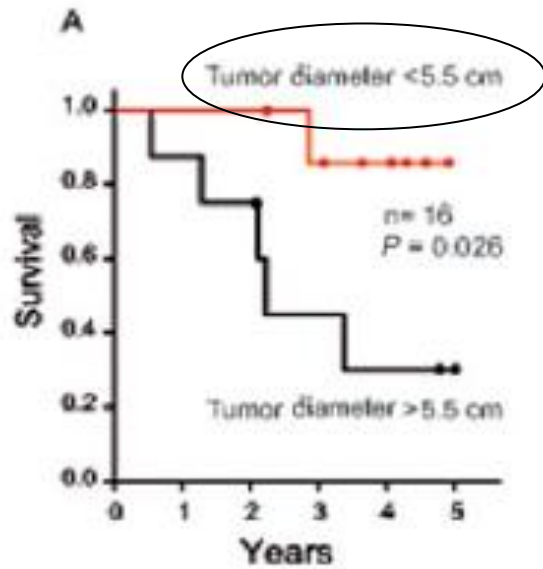
Adam et al,
The Lancet 2024

SECA 1



Oslo criteria

Hagness et al, Ann Surg 2013



SECA 2

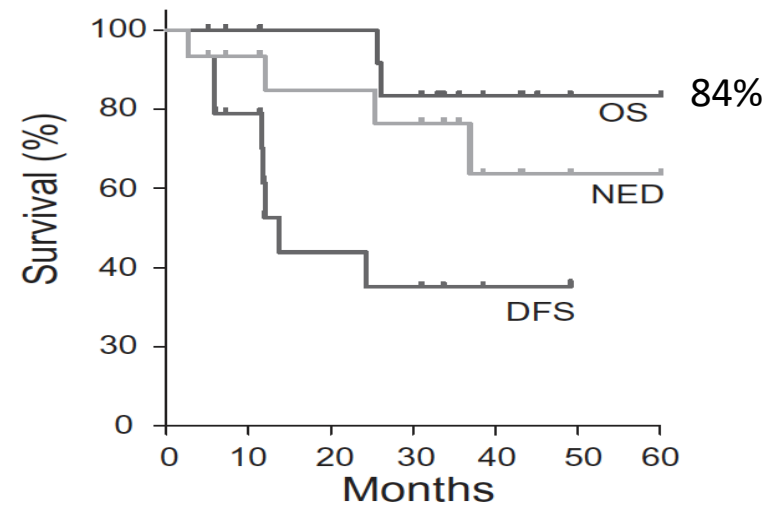


Time from diagnosis to LT > 1 year



At least 10% response (Recist) to chemotherapy

Dueland et al, Ann Surg 2020



Indications actuelles

- ▶ Tout malade ayant des MCR qui répondent à la chimiothérapie mais qui restent non résécables, en l'absence de localisation extra-hépatique et après résection du primitif...
- ▶ La triade du succès :
 - Sélection drastique
 - Comité de validation indépendant
 - Priorisation d'accès au greffon

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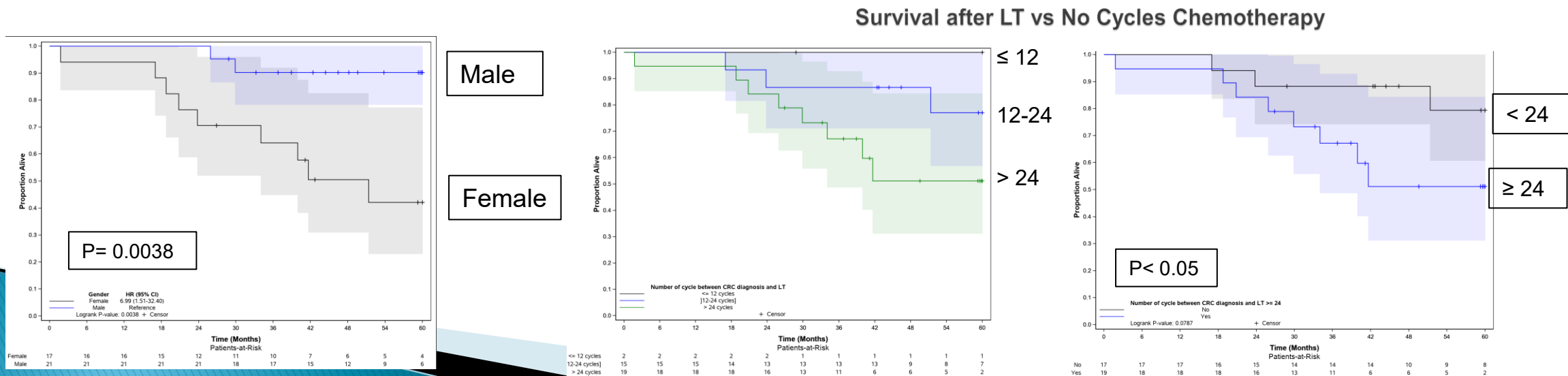
Les modifications potentielles...

Extension

- Age : extension à 70 ans en l'absence de co-morbidités
- Mutation B RAF non-V600: meilleur pronostic que V600 (*Jones et al, JCO 2017*)

Restriction

- DNA Tumoral circulant + en pre TH (*Tie et al, PLOS Medicine 2021*)
- Colon droit ? (*Dueland et al, Jama Surgery 2021*)
- Sexe Féminin ? Chimio trop prolongée (*Adam et al, ASCO 2025, Vitale et al, JHEP Rep 2025*)



Insights from the Transmet trial

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Survival Outcomes After Portal Vein Embolization and Liver Resection Compared With Liver Transplant for Patients With Extensive Colorectal Cancer Liver Metastases

S. Dueland et al,
Jama Surgery 2021

DESIGN, SETTING, AND PARTICIPANTS This comparative effectiveness research study assessed 50 patients with colorectal cancer liver metastases who were previously enrolled in liver transplant studies between November 2006 and August 2019 at Oslo University Hospital in Norway. Those patients were compared with a retrospective cohort of 53 patients in the Oslo University Hospital PVE database from March 2006 through November 2015 with similar selection criteria who underwent PVE and liver resection.

MAIN OUTCOMES AND MEASURES The OS among patients with high tumor load after liver transplant was compared with that among patients with high tumor load who underwent PVE and liver resection. High tumor load was defined as 9 or more metastatic tumors or a diameter of 5.5 cm or longer for the largest liver lesion.

Figure 2. Overall Survival Among Patients With High Tumor Load Receiving Portal Vein Embolization (PVE) and Liver Resection (LR) (n = 8) vs PVE Only (n = 7) and Among Patients With High Tumor Load Treated With Liver Transplant (LT) and Having Left-Sided Primary (n = 21) vs Ascending Colon Primary (n = 8) Tumor

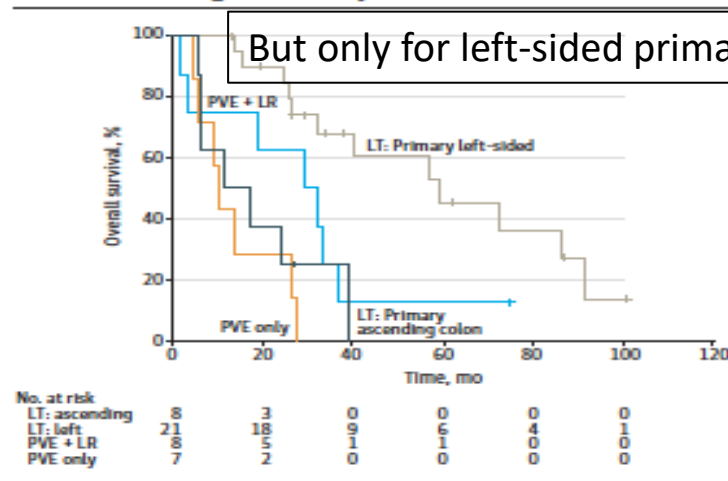
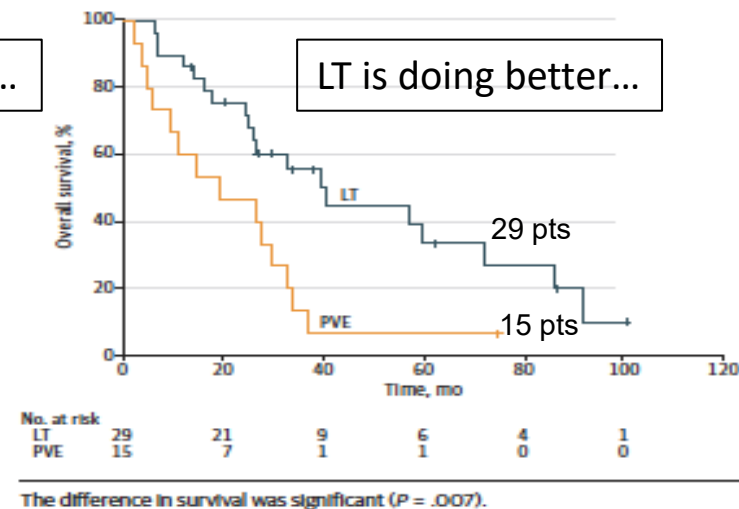


Figure 3. Overall Survival Among Patients With High Tumor Load Receiving Portal Vein Embolization (PVE) (n = 15) or Liver Transplant (LT) (n = 29)



CONCLUSIONS AND RELEVANCE Patients with nonresectable disease, an extensive liver tumor load, and left-sided primary tumors had long OS after liver transplant, exceeding the survival outcome for those patients treated with PVE and liver resection.

Survival after liver resection and liver transplantation for colorectal liver metastases: a comparative analysis stratified by metabolic tumor volume assessed by ^{18}F -FDG PET/CT

Harald Grut^{1,2}, Pål-Dag Line^{3,4}, Knut J. Labori^{4,5}, Anselm Schulz² & Svein Dueland³

HPB 2022, 24, 1055–1062

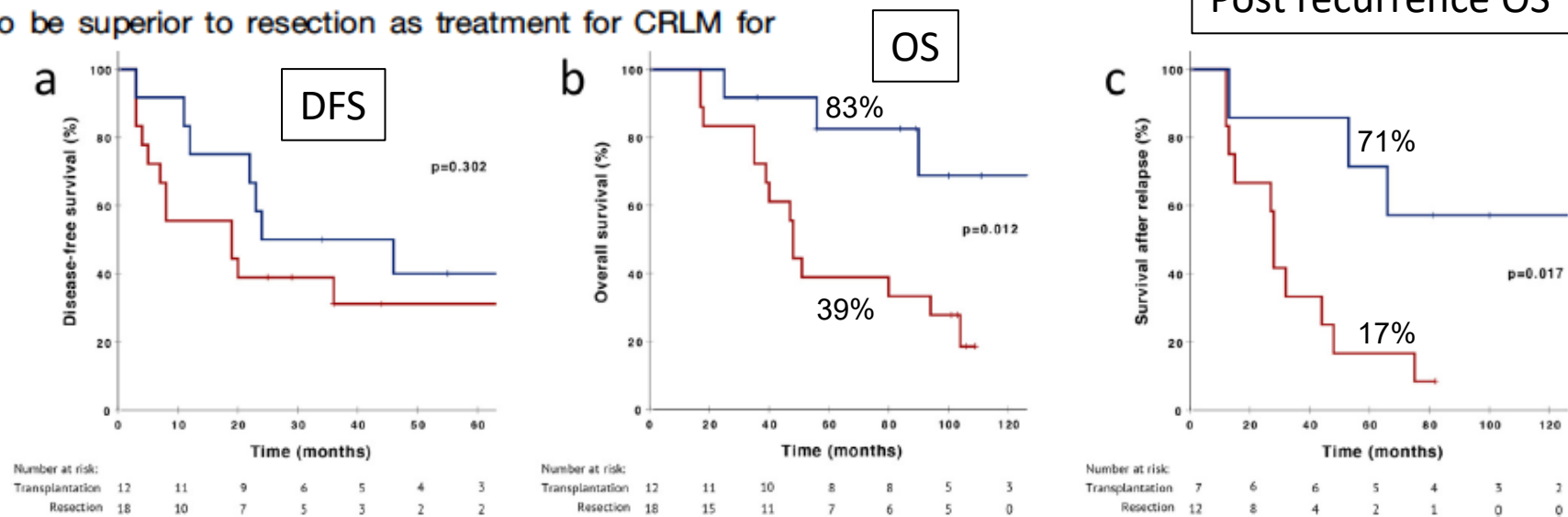
Methods: Disease-free survival (DFS), OS and post recurrence survival (PRS) following resection (n = 18) and LT (n = 12) was compared by using the Kaplan Meier method and log rank test for patients with moderate MTV.

Results: Patients undergoing LT had unresectable metastases, significantly lower age, higher tumor burden score and number of liver metastases, longer time from diagnosis to surgery, and more patients received neoadjuvant chemotherapy. OS at 5 years was 39% in the resection group and 83% in the LT group (P = 0.012). PRS was significantly improved in patients treated with LT compared to resection with 71% alive at 5 years from recurrence compared to 17% in the resection group (P = 0.017).

Conclusion: LT for selected patients seems to be superior to resection as treatment for CRLM for patients with moderate MTV.

INCLUSION CRITERIA

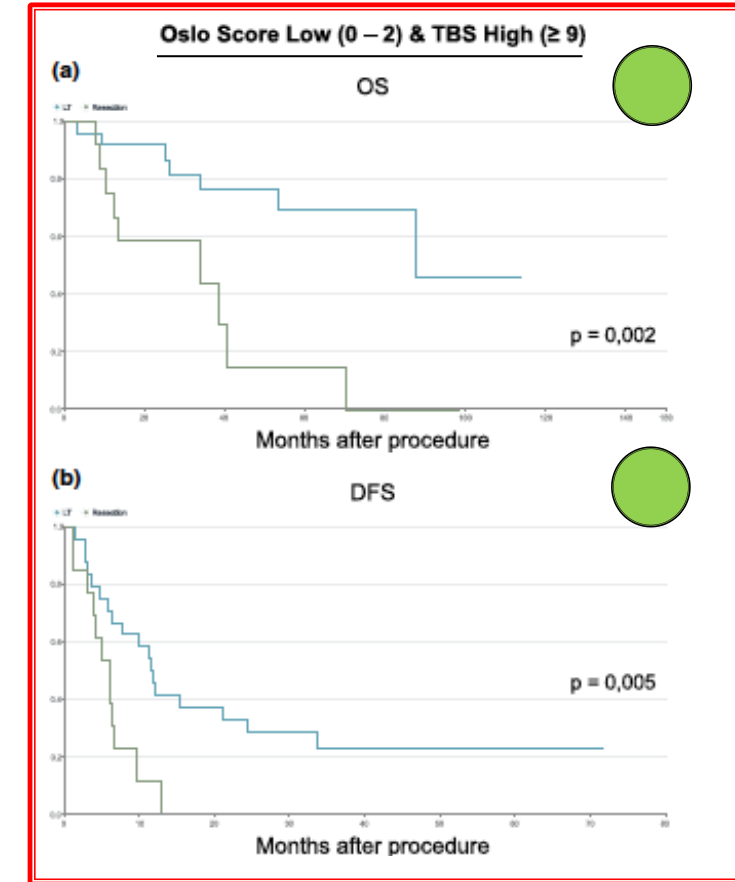
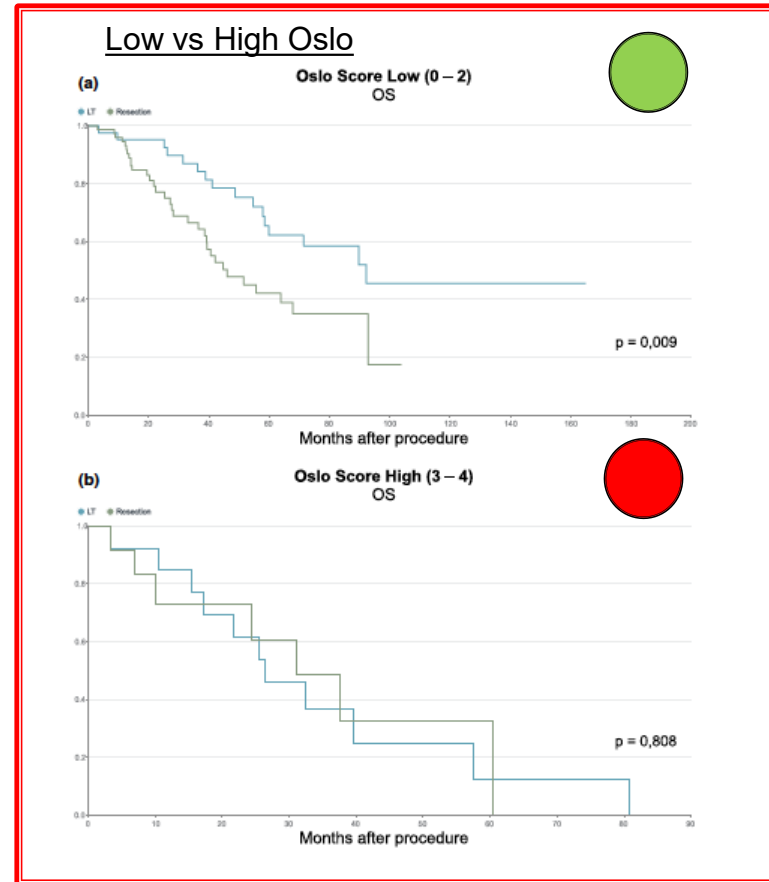
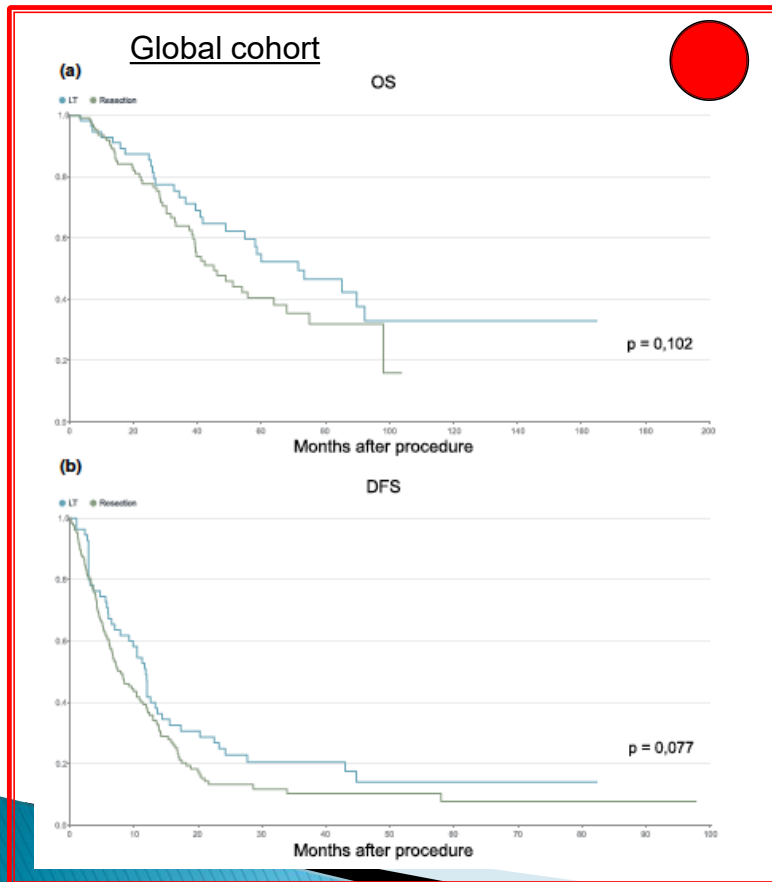
$6\text{ cm}^3 < \text{Metabolic tumor volume (MTV)} < 70\text{ cm}^3$ (^{18}F -FDG PET/CT)



Liver transplantation versus liver resection for colorectal liver metastasis: a survival benefit analysis in patients stratified according to tumor burden score

128 LR vs 58 LT

LT : Larger and more numerous lesions but lower Kras mutations...



Surgery (Resection or LT) for CRLM

n = 640 (2016 – 2023)

Surgery for **extensive bilobar** CRLM
n = 70 (11%)

With Extrahepatic metastases (n = 12)

Patients with **liver-only** disease
n = 58 (9%)

TSH / ALPPS Potentially Curative

Yes

TSH 1st Stage
n = 42

ITT

No

LT group (ITT)
n = 16

Dropout
n = 10 (24%)

go to LT (n = 3)

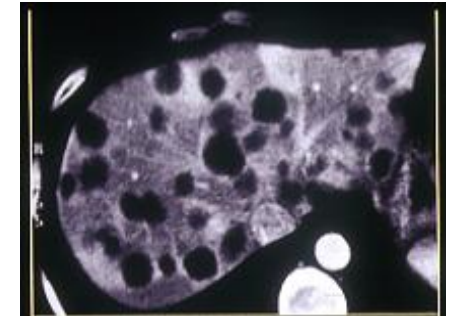
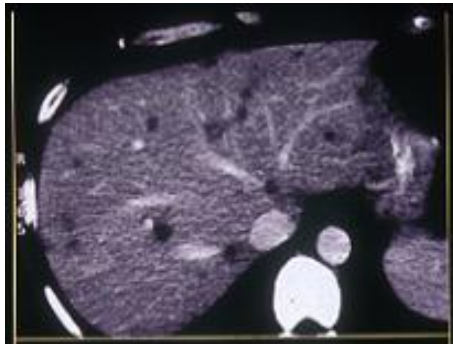
Exclusion (n = 7)

TSH completed
n = 32

PP

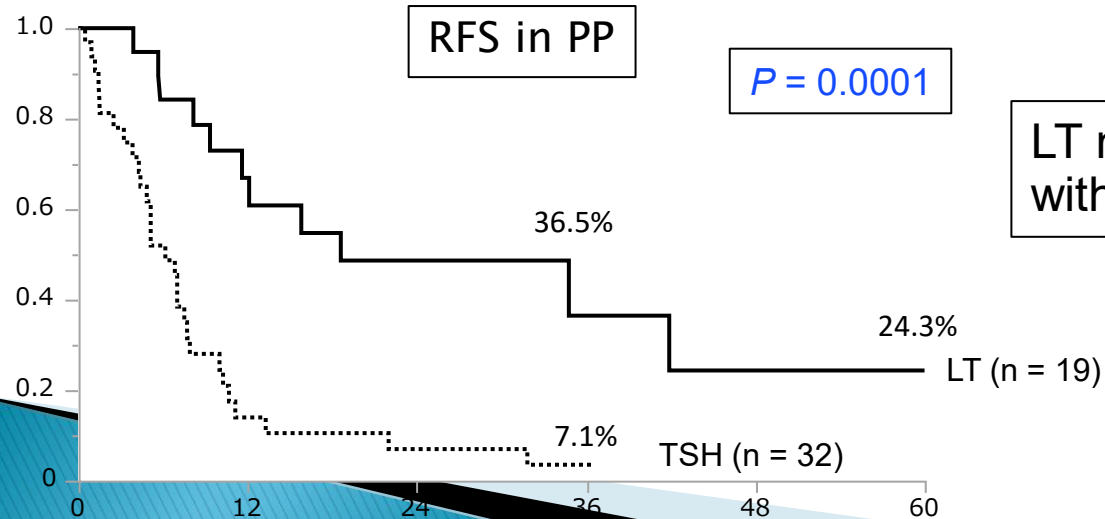
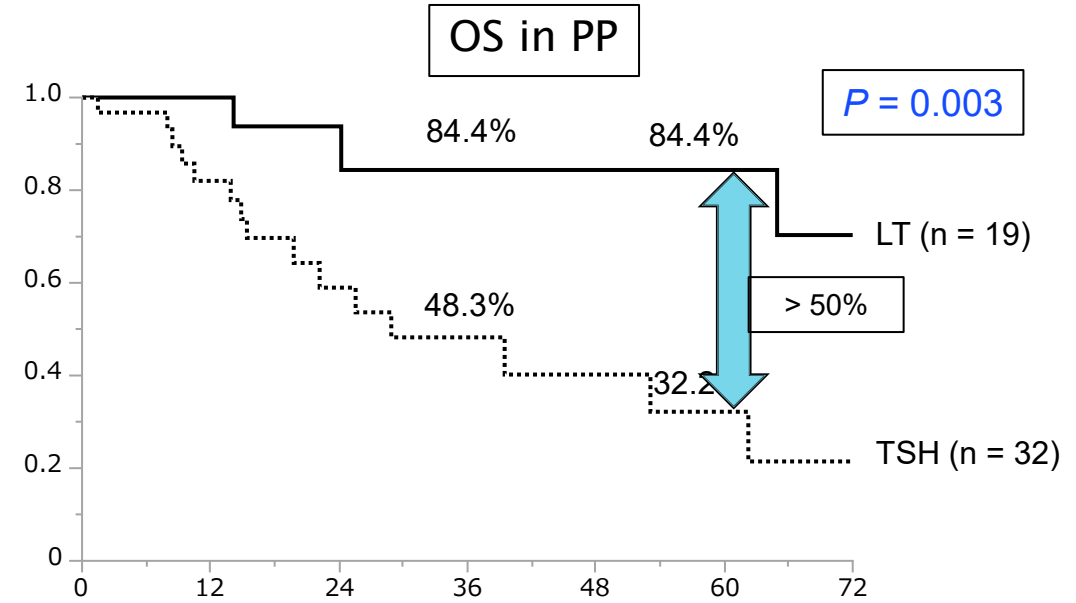
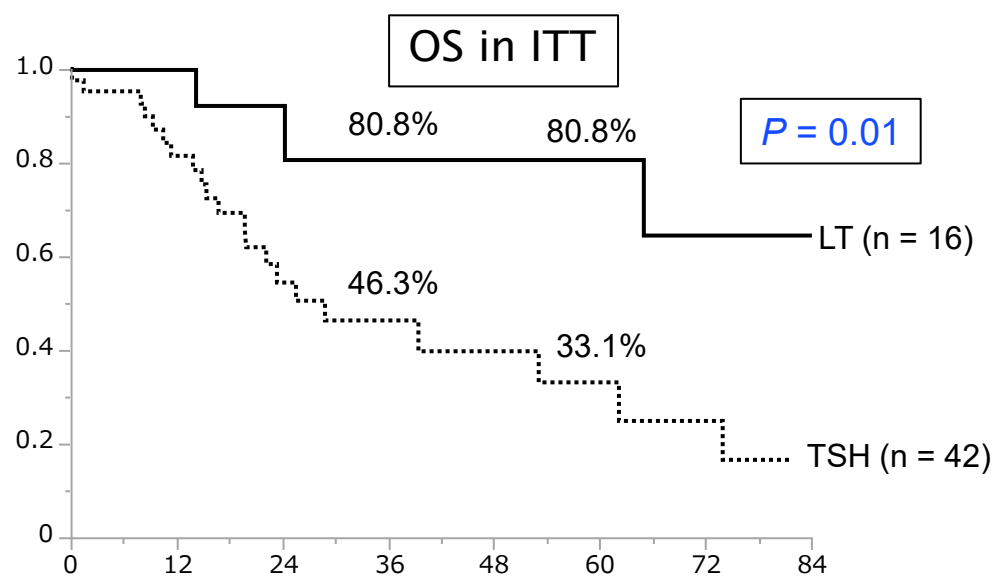
LT group (PP)
n = 19

Higher No Mets
In the LT Group...



Two-stage hepatectomy (TSH) vs Liver Transplantation (LT) for pts with extensive bilobar CRLM

640 pts resected from CRLM (2016-2023) - 58 (9%) with extensive bilobar liver-only CRLM



LT might achieve better outcomes than TSH in patients with extensive bilobar resectable liver-only CRLM

Nakao, Adam et al, *Ann Surg* 2025

Résection ou Transplantation pour MHCCR ?

En résumé

Pas de difference de Survie :

- Chez les patients « tout venant »
- Chez ceux ayant un score d'Oslo élevé (≥ 3)
- Avec MH étendues de cancer du colon droit ...

Oui, une différence en faveur de la TH :

- Pour les MH étendues de cancer du colon Gauche
- sous condition d'un volume tumoral métabolique modéré ($< 70 \text{ cm}^3$)...
- Lorsque un score d'Oslo bas s'associe à une charge tumorale élevée
- Et pour les pts actuellement opérés d'une hépatectomie en 2 temps...

Futur de la TH pour for MHCCR

Conclusions

1. TransMet: Un changement majeur des pratiques (70-80% de survie à 5 ans)
2. Cible → moins de 5% of patients ayant des MHCCR, 2-3% des TH...
3. Extension des indications chez les pts non résécables : Surement...
4. Extension des indications chez les pts marginalement résécables : Possiblement...
5. Base de sélection : critères stricts –comité indépendant – Priorisation accès greffon
6. Meilleure sélection → Ct DNA, Profil Bio Mol, timing plus précoce, prévention recidive
7. Pénurie d'organes → Implémentation pool donneurs: donneurs marginaux... Splits...
arrêt circulatoire... et donneurs vivants car plus de limite éthique...



Encore beaucoup à apprendre... mais définitivement une Indication validée de TH et un réel potentiel de guérison...