

# 18FDG PET CT as a selection criteria in liver transplantation for hepatocarcinoma: ULiege preliminary results of a prospective national study by BeLIAC

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# Background

- For more than 25 years, HCC criteria for liver transplantation are based on size and number, with the quite restrictive Milan criteria (1 node < 5cm, 3 nodes < 3 cm)
- Tumour metabolism is important
  - AFP criteria
  - PET CT?

# PROGNOSTIC VALUE OF FDG PET/CT IN LIVER TRANSPLANTATION FOR HEPATOCARCINOMA

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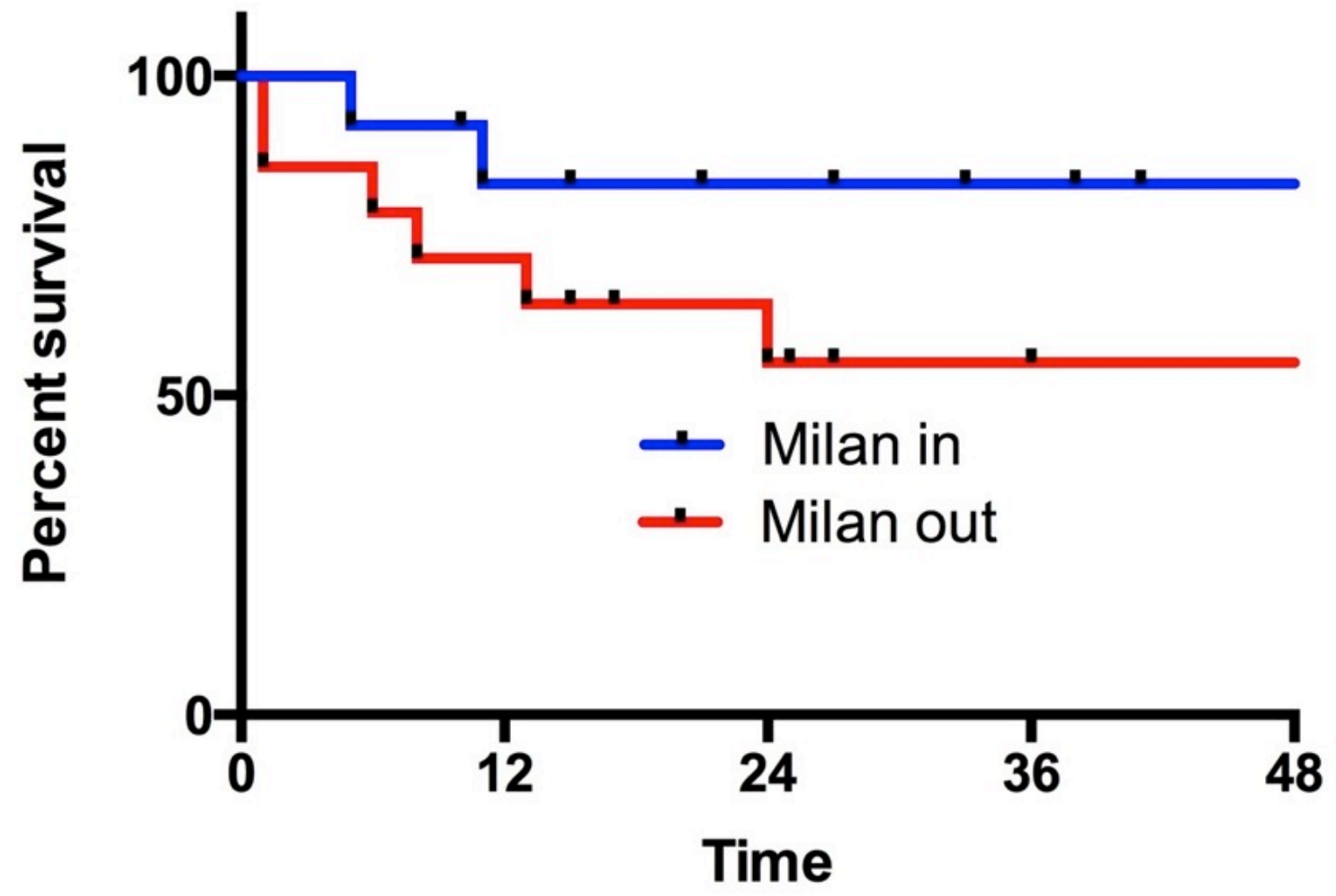
# M&M: Inclusion criteria

- Retrospective study
- LTx for HCC in CHU Liege from 2006 to 2011
- PET pre transplantation before any neoadjuvant therapy
- Complete follow-up

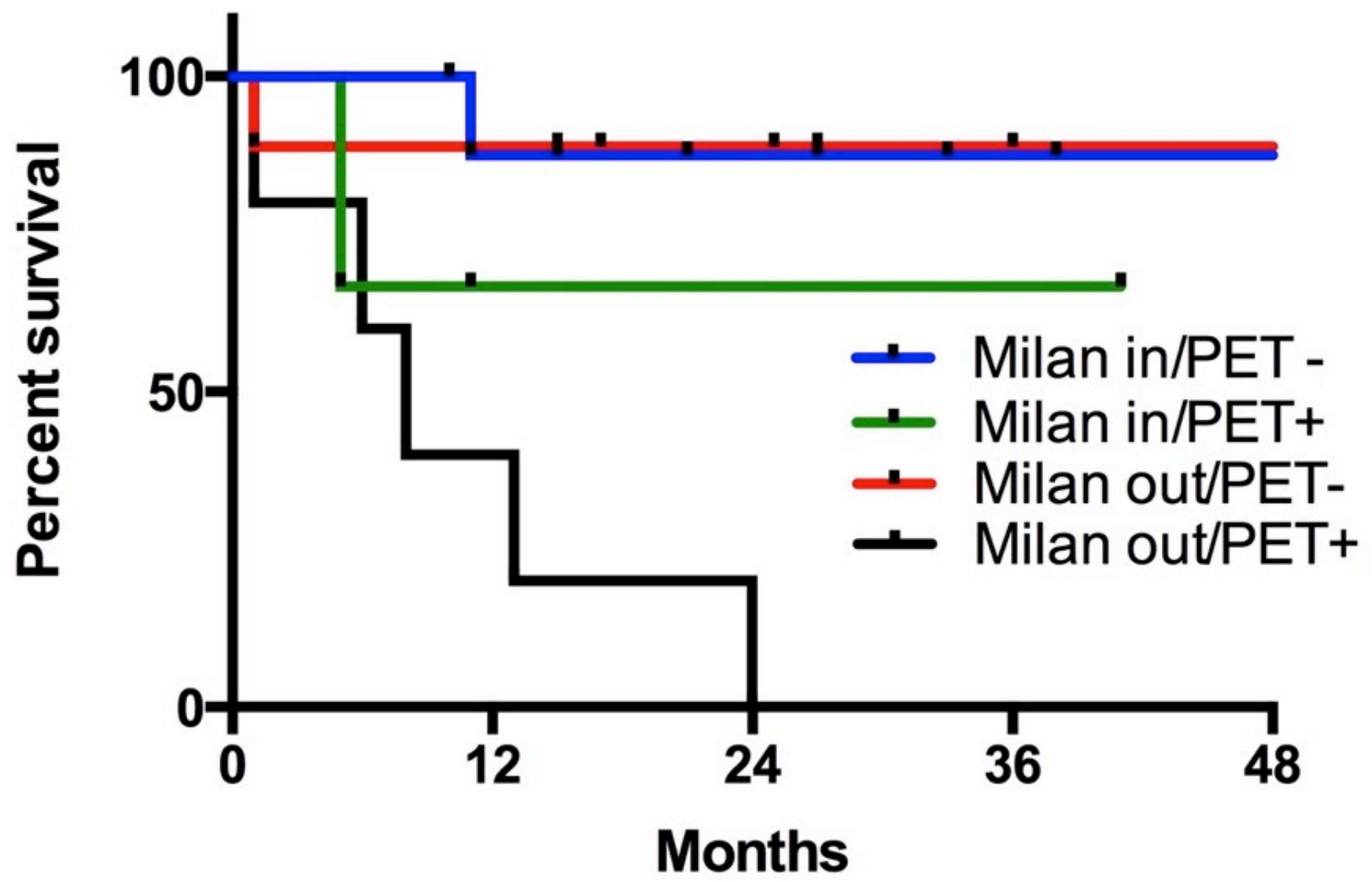
# Patients

- 52 LT for HCC during the study period
- 27 fulfilled the inclusion criteria
  - 13 Milan in (SE)
  - 14 Milan out (rescue allocation & DCD)
- Mean follow-up: 26 months
- Mean interval between PET & LT: 4 months

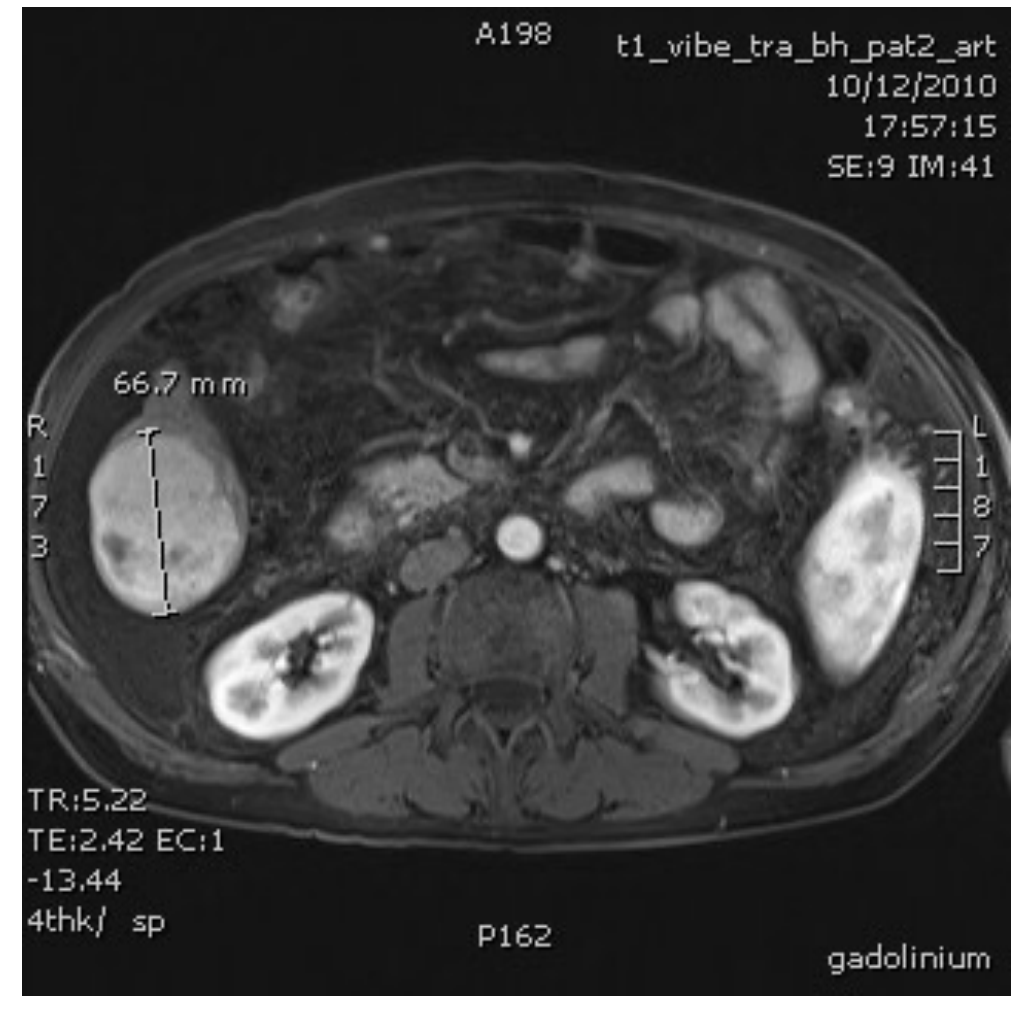
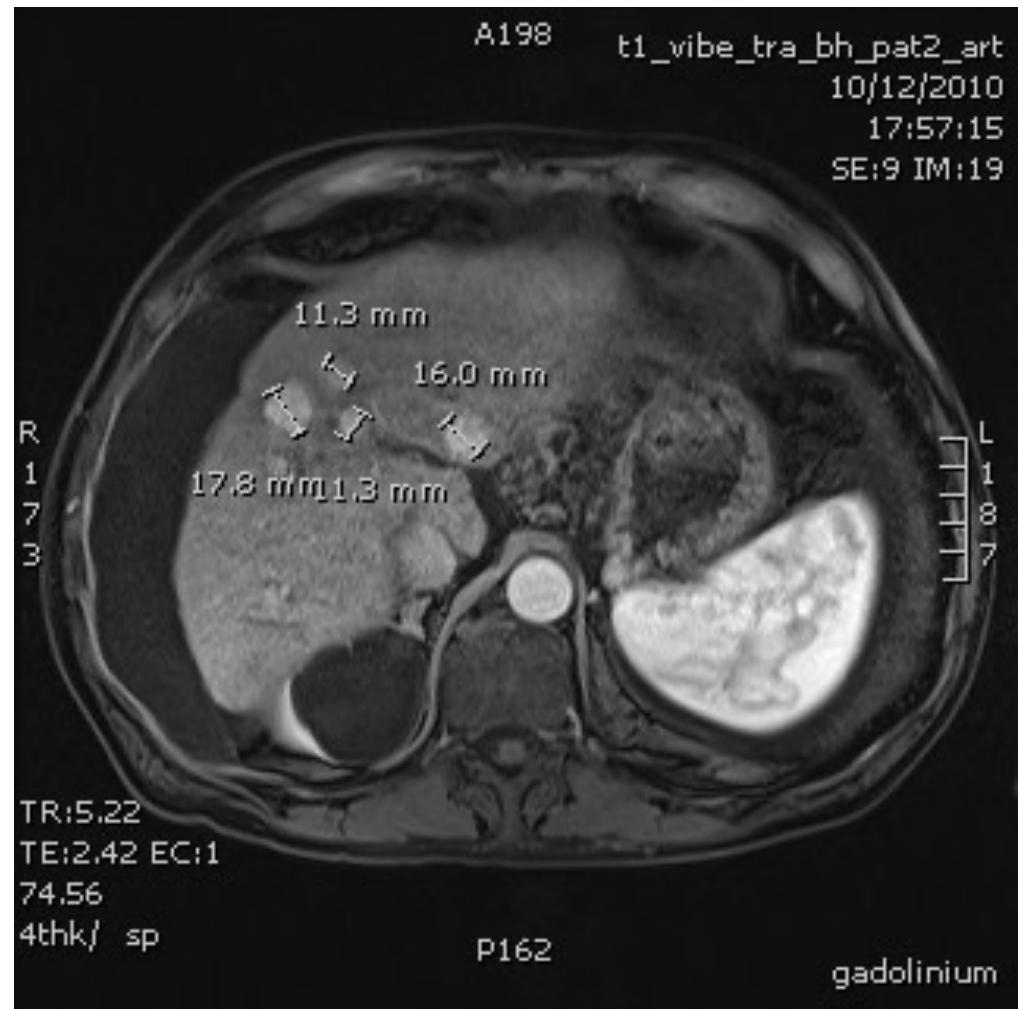
# Recurrence-free survival



# Recurrence-free survival



# Case





# Prospective national study

- Aim: to confirm the hypothesis that the results of LT for HCC Milan out / PET CT negative have the same results than Milan in patients
- Prospective BeLIAC project
- 4 years (2019-2022), all 6 Belgian LT centers
- Same allocation for Milan in / Milan out, Up-to-seven in, Pet neg

# National HCC database – update March 2023

- 241 patients listed for HCC or diagnosed for HCC at pathology
- 145 pre-Tx PET CT !
  
- Issues with data completeness and follow-ups

# Partial results (CHU- Liege)

- Between January 2019 & October 2022, 55 patients were transplanted and suffered from HCC, and **47** with pre-treatment or pre-operative PET CT
- **Milan in: 34** patients (PET -: n=32, PET +: n=2)(one after successful downstaging)
- **Milan out, PET -: 13** patients

# Partial results (CHU - Liege)

	MILAN IN (n=34)	MILAN OUT/PET NEG (n=13)	P (Mann-Whitney)
Median age (y)	64 (45-74)	66 (55-72)	0.59
Median Lab MELD	9 (6-21)	9 (6-26)	0.49
Median AFP	5.6 (0-442)	7.1 (0-83)	0.71
Median waiting time	84 (2-484)	85 (1-326)	0.84
DBD/DCD	18/16	1/12	0.006 (Fischer)
Post op hospitalization	12 (5-30)	10 (5-90)	0.45



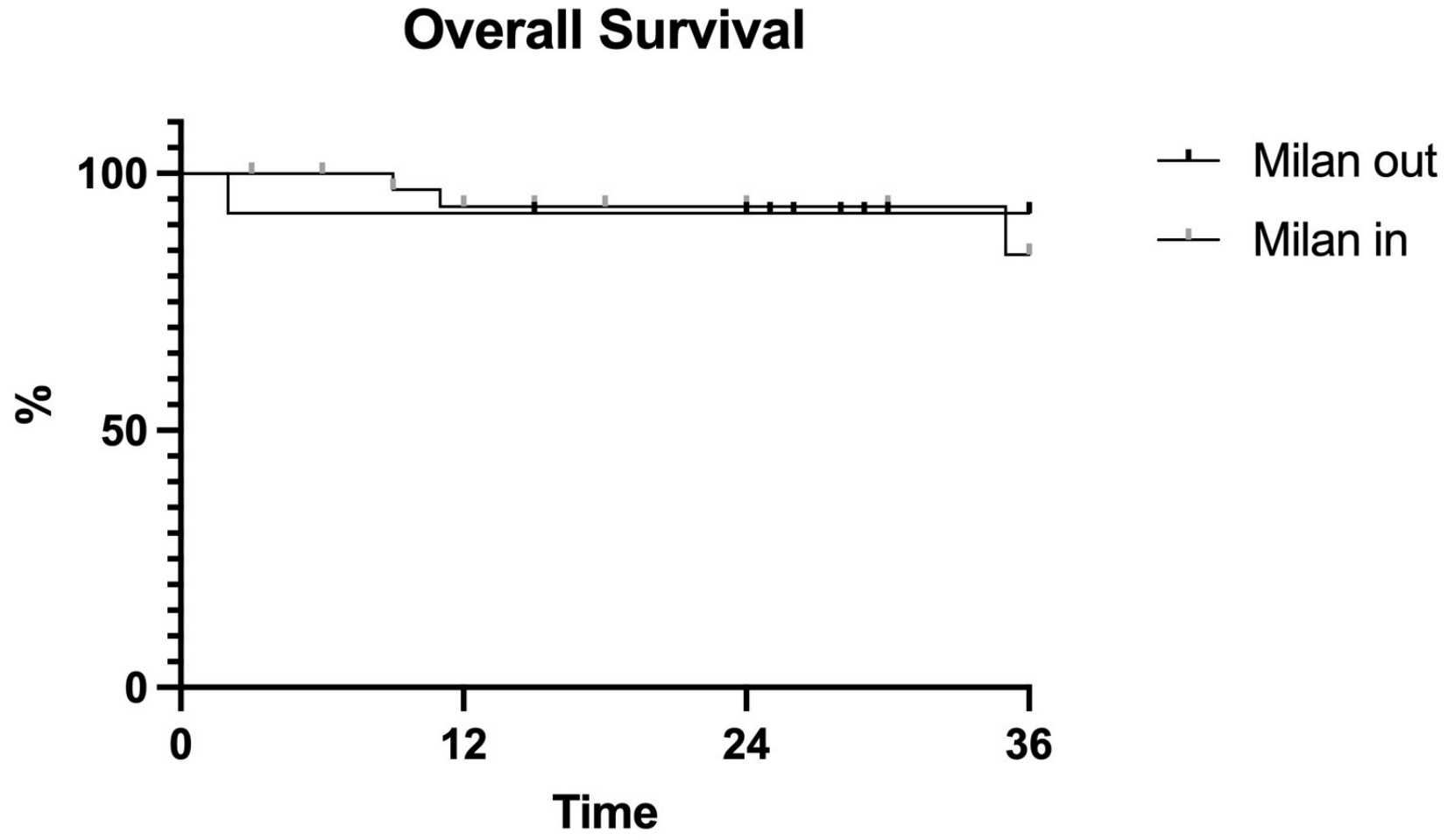
# Milan in: 34 patients

- Median follow-up: 18 months
- 5 death
  - 3 recurrences (all PET neg)
  - 2 covid
- 93% survival at 1 & 2 years and 84 % at 3 years
- 96%, 92% and 85% disease-free survival at 1,2,3 years

# Milan out : 13 patients

- Median follow-up: 28 months
- 1 death due to sepsis (postoperative pancreatitis)
- No recurrence
  
- 92% survival at 1, 2, 3 years
- 100% disease-free survival at 1,2,3 years

# Overall survival



# Conclusions

- Too early to conclude, but :
  - Milan in: - PET positive: only 2 cases, no recurrence
    - 32 PET negative, 3 recurrences
  - Milan out, PET negative: excellent results
- Longer follow-up needed
- Active participation of all centers (145 pre-Tx PET CT !)



# Thank you !

- CHU Liege
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