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Management of HCC Case #2

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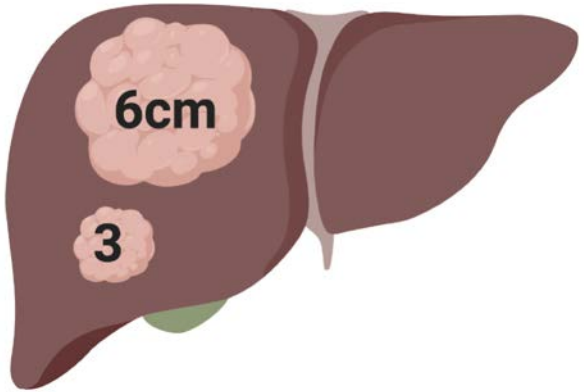
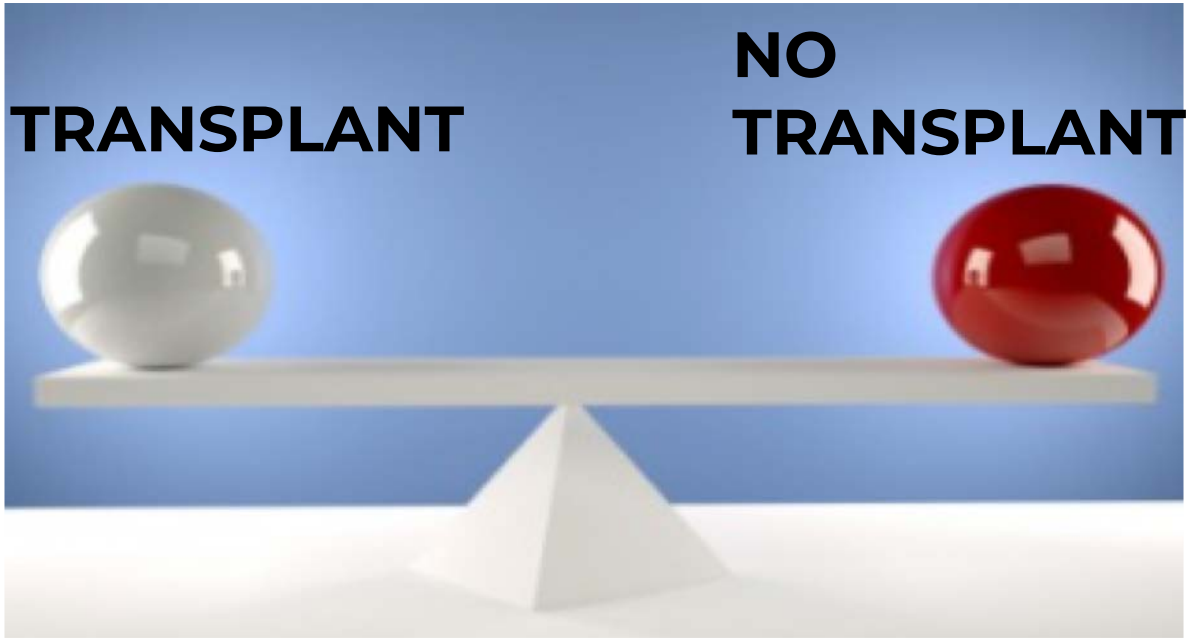
Case 2

- 55 year-old man with HCV/cirrhosis, history of SVR after anti-viral therapy
- Two hypervascular lesions and washout (LI-RADS 5) measuring 6.0 cm and 3.0 cm in the right lobe on MRI of the abdomen
- He has normal liver function (total bilirubin 1.0, INR 1.1)
- No ascites or encephalopathy Child's A cirrhosis
- Portal hypertension (platelet count of 75, splenomegaly, no varices on EGD.)
- Alpha-fetoprotein 15
- BMI 25



The Question?

In patients with cirrhosis and portal hypertension AND HCC outside UCSF criteria-



The Goldilocks problem

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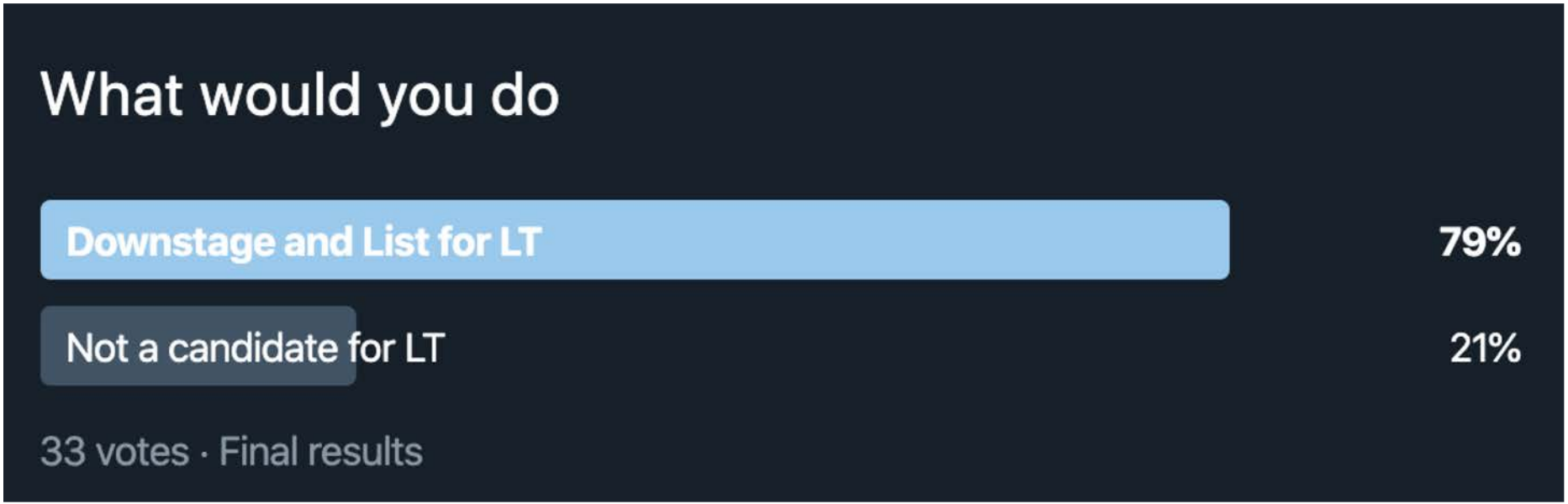
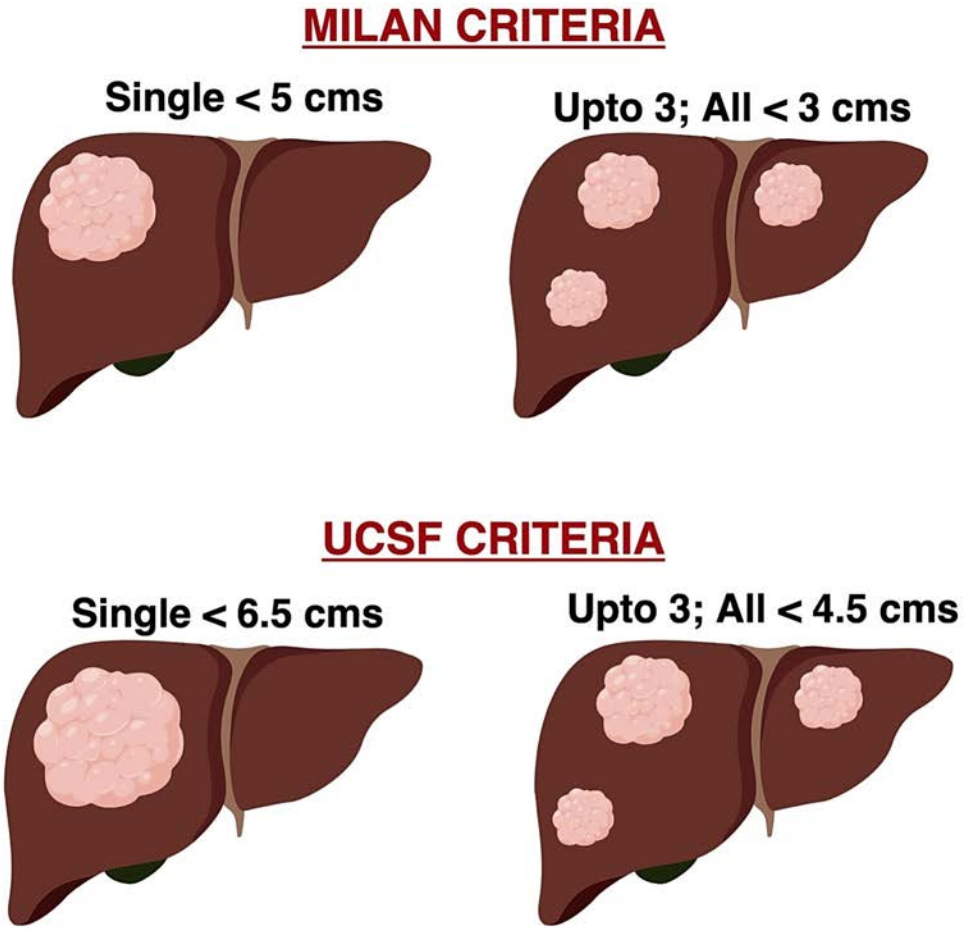
Twitter Hepatology Community (n=33 votes)



Differing Points of View

HCC Transplant Criteria

1. Up-to-7 criteria
2. Total tumour volume (TTV) criteria + AFP
3. AFP-French model
4. Hangzhou criteria
5. Seoul criteria



What do the Guidelines say?

AASLD

8. The ĂASLD suggests that patients beyond the Milan criteria (T3) should be considered for LT after successful downstaging into the Milan criteria.

Quality/Certainty of Evidence: Very low

Strength of Recommendation: Conditional

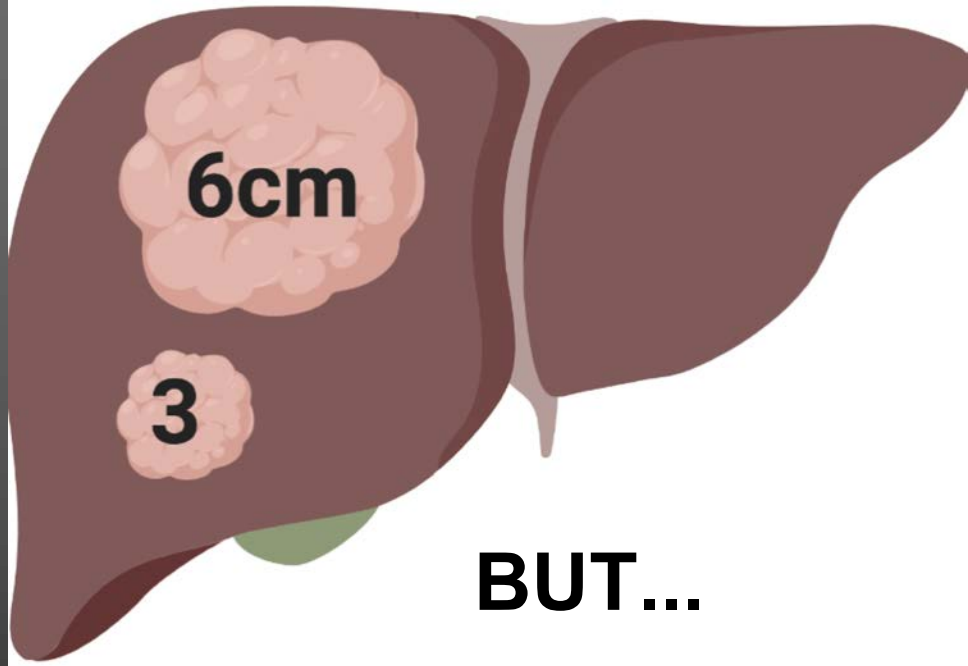
EASL™
The Home of Hepatology

- Consensus on expanded criteria for LT in HCC has not been reached. Patients beyond the Milan criteria can be considered for LT after successful downstaging to within Milan criteria, within defined protocols (**evidence moderate; recommendation weak**).

Lets focus on AASLD

OPTN policy was changed in 2017 to grant a standard MELD score exception for patients who originally presented with

- up to 5 tumors
- largest 4.5 cm
- sum of the tumor diameters < 8 cm,
- successfully downsized to within Milan



BUT...

Questions

- Can it be downstaged? **Yes**
- Can the patient be successfully transplanted? **Yes**
- Is it fair to society?
- Is the recurrence rate high?
- Is it still confined to the Liver?

What is acceptable to the Society?

Expansion of the Transplant criteria will require demonstrating high survival rates for the newly eligible patients-approximately **61% at 5 years after transplantation.**

Post-LT outcome for patients with or without HCC should be similar.

Volk et al. 2008

National Experience on Down-Staging of Hepatocellular Carcinoma Before Liver Transplant: Influence of Tumor Burden, Alpha-Fetoprotein, and Wait Time

UNOS database of **3,819 patient**s who underwent LT from 2012 to 2015, classified as always within Milan (n = 3,276), UNOS-DS (n = 422), and **AC-DS (n = 121)**

Vascular invasion was found in **23.7% of AC-DS** versus 16.9% of UNOS-DS and 14.4% of Milan (*P* = 0.002).

The 3-year HCC recurrence probability was 6.9% for Milan, 12.8% for UNOS-DS, and **16.7% for AC-DS** (*P* < 0.001)

Kaplan-Meier 3-year post-LT survival was 83.2% for Milan, 79.1% for UNOS-DS (*P* = 0.17 vs. Milan), and **71.4% for AC-DS** (*P* = 0.04 vs. Milan).

Mehta et al. 2019

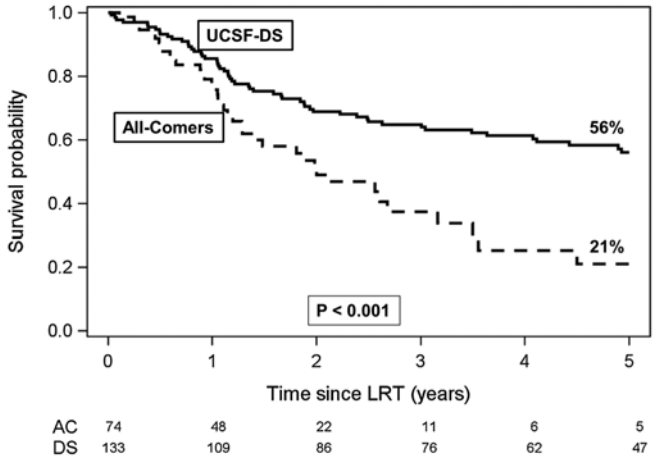
Outcomes of Liver transplantation for hepatocellular carcinoma (HCC) beyond the University of California San Francisco (UCSF) criteria: a single center experience

- 220 HCC patients were transplanted, 138 inside Milan, 23 inside UCSF, **59 beyond UCSF criteria**
- Tumor **recurrence** was more likely in outside of UCSF patients (3% vs. 9% vs. **15%** p=0.02)
- Recurrence free survival trended toward significance amongst the groups (p=0.05)

Victor et al, 2019

Are There Upper Limits in Tumor Burden for Down-Staging of Hepatocellular Carcinoma to Liver Transplant? Analysis of the All-Comers Protocol.

- Compared the intention-to-treat (ITT) outcomes of DS in **74 patients beyond UCSF** criteria group and 133 patients in the UCSF criteria
- ITT survival at 1 year and 5 years was 77.4% and **21.1%**, respectively, in AC versus 85.5% and 56.0%, respectively, in UCSF-DS (P < 0.001).



Sinha et al, 2019

More Data..

Ref.	Patients,n (type)	Criteria (findings)	Factorsfor recurrence
Yao et al, 2007	38 (MO)	UCSF (Radiol)	Largest tumor > 6.5 cm
Onaca et al, 2007	129 (MO)	Onaca	Largest tumor > 5 cm
Zheng et al, 2008	99 (MI and MO), 26 (MO)	Hangzhou (Histol)	Largest tumor > 8 cm
Kaido et al, 2013	42 (MO)	Kyoto	Largest tumor > 5 cm
Shirabe et al, 2011	48 (MI and MO)	Kyushu (Histol)	Largest tumor > 5 cm
Lee et al, 2008	174 (MI and MO)	Asan (Histol)	Largest tumor > 5 cm
Kim et al, 2014	180 (Including Samsung-out)	Samsung (Histol)	Largest tumor > 5 cm

Is it confined to the Liver?

- Index tumor size >5 cm OR for metastasis 17.7 (9.0–34.8)[1]
- T3-T4 tumor size metastases present in 24-26%[2]
- FDG-PET- Extrahepatic metastasis was significantly more frequent in patients with intrahepatic tumor>5 cm in size (p = 0.045)[3]
- Autopsy study of 240 patients- The incidence of intrahepatic and extrahepatic tumor spread of HCC was significantly higher for tumors measuring more than 5 cm[4]

1.Yookoo et al, 2019
2. Yi et al, 2013
3. Yoon et al, 2007
4. Yuki et al, 1990

Questions

- Is the recurrence rate high? ***Yes***
- Is the survival rate lower? ***Yes***
- Is it still confined to the Liver? ***Unlikely***
- Is it fair? ***I don’t think so***

Treat the patient, not the scan!


UNTOLD
STORIES
OF THE
WIZARDIN
WORLD

My Take..

Data shows success in down staging but with higher recurrence rates than patients initially within accepted transplantation criteria.

In carefully selected patients, there is a role for down staging to provide the chance of transplantation and cure, with acceptable outcomes.

Right now its not clear which cohort of patients with tumor burden beyond UCSF criteria will benefit most.

Until such data is available, downstaging criteria should be restricted to AASLD guidelines.

Thank You