METASTASI EPATICHE DA CARCINOMA DEL COLON-RETTO TERAPIE ABLATIVE PERCUTANEE (PATs)

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BCLC -Strategy for staging and treatment

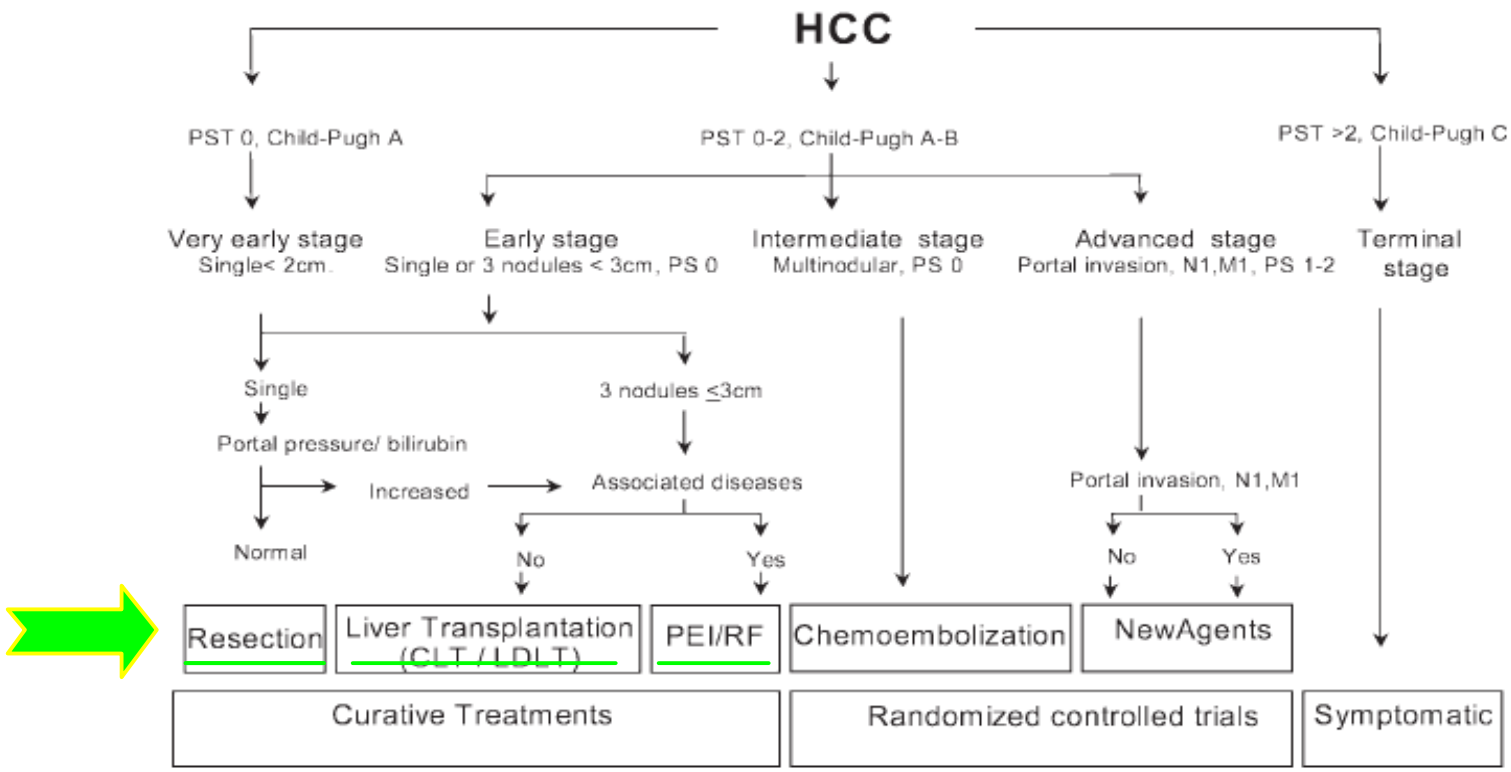


Fig. 2. Strategy for staging and treatment assignment in patients diagnosed with HCC according to the BCLC proposal.

PATs - Caratteristiche

- ü *Scarsamente invasive*
- ü *Bassa morbidità/mortalità*
- ü *Agevolmente ripetibili*
- ü *Risparmiano il parenchima sano*
- ü *Associabili ad altri trattamenti citoriduttivi (resezione, TACE)*
- ü *Noduli max 3-4 cm*
- ü *Max 3-4 noduli*

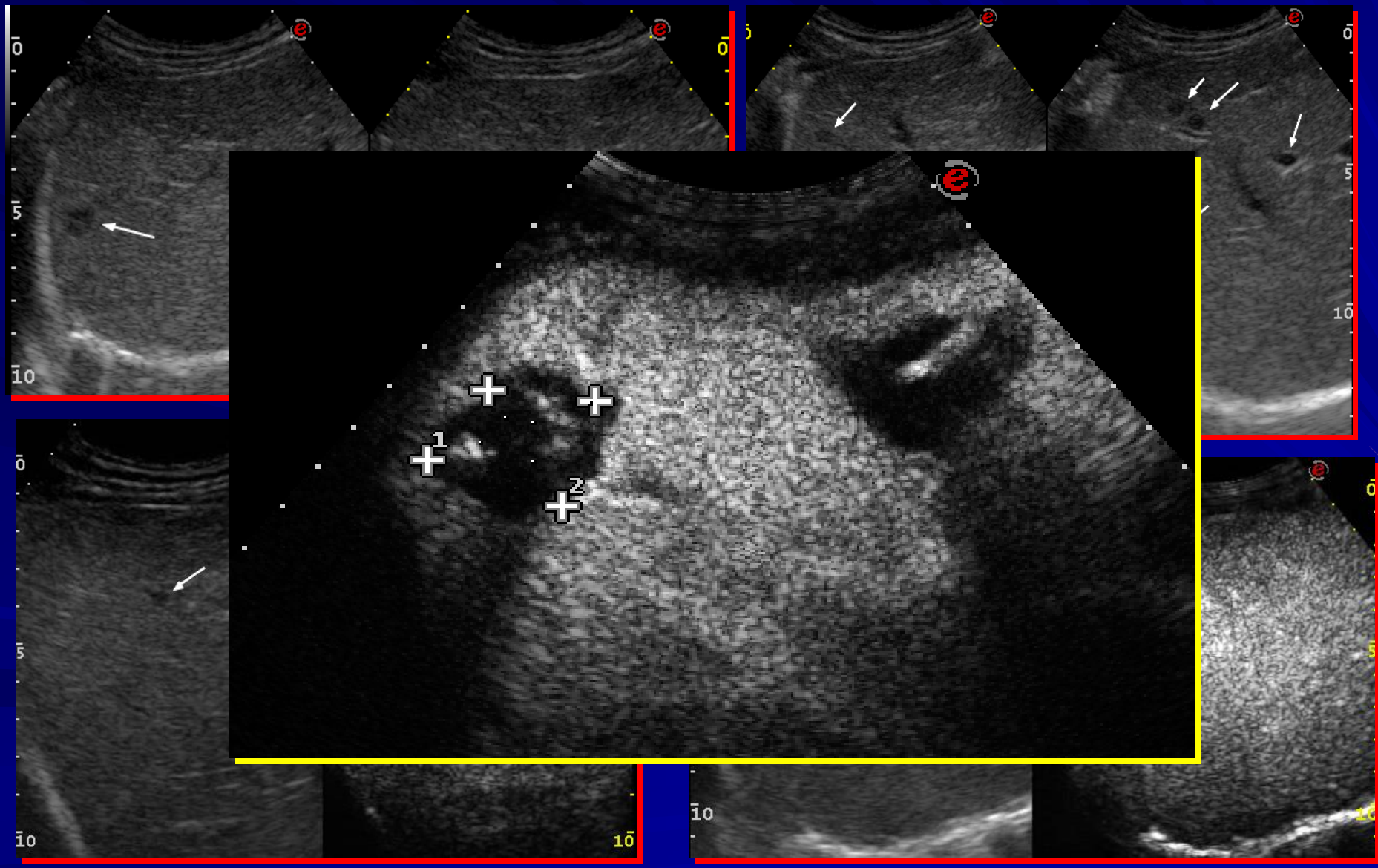
} ***Criteri ancora validi?***

PATs – Le armi oggi a disponibili

RF

Laser

PATs – Laser

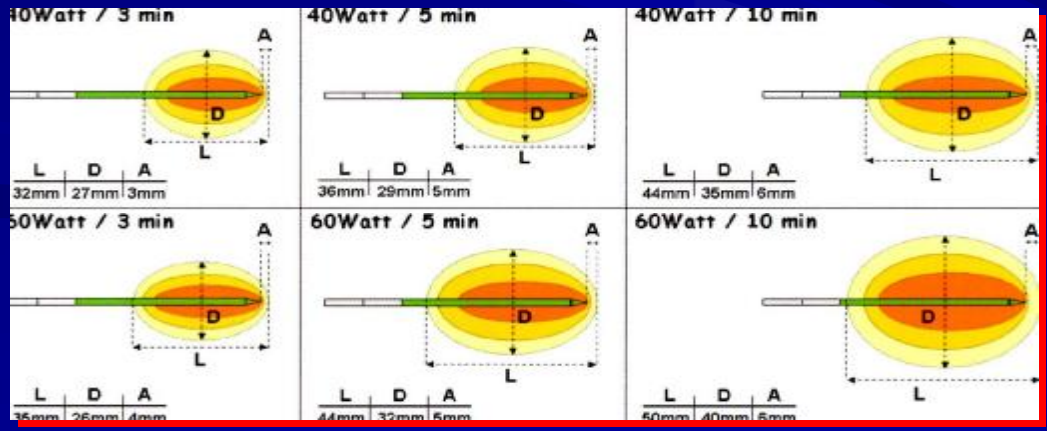


PATs – Le armi oggi a disponibili

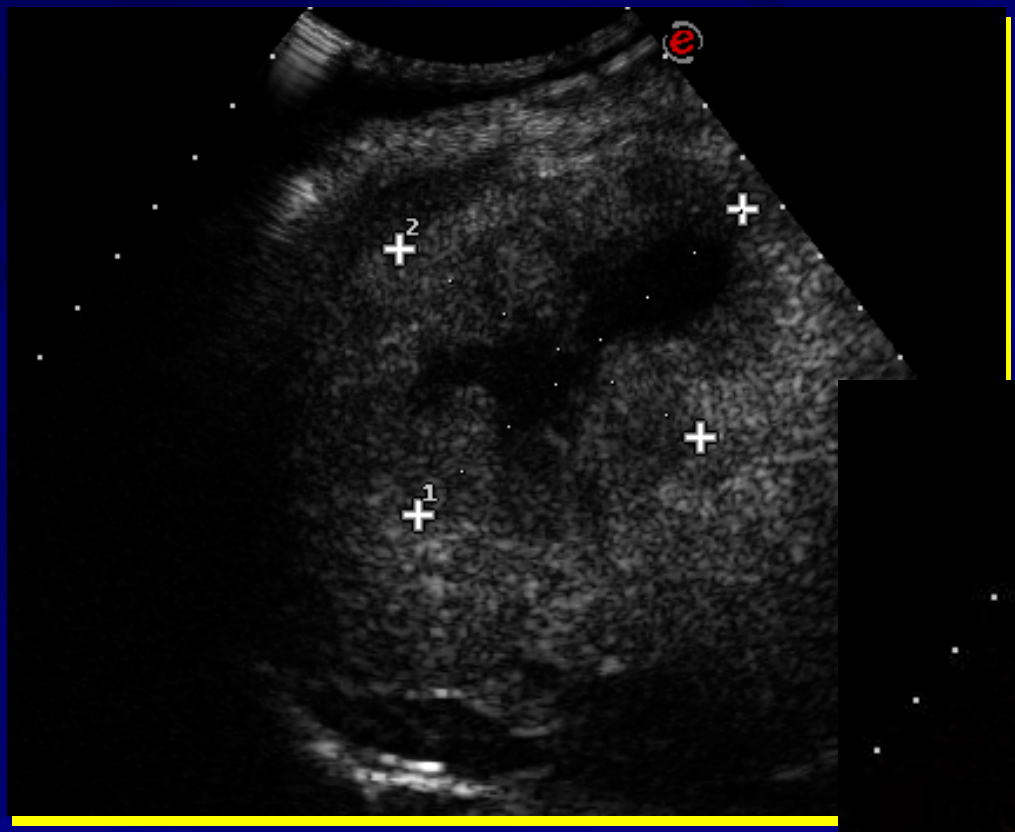
RF

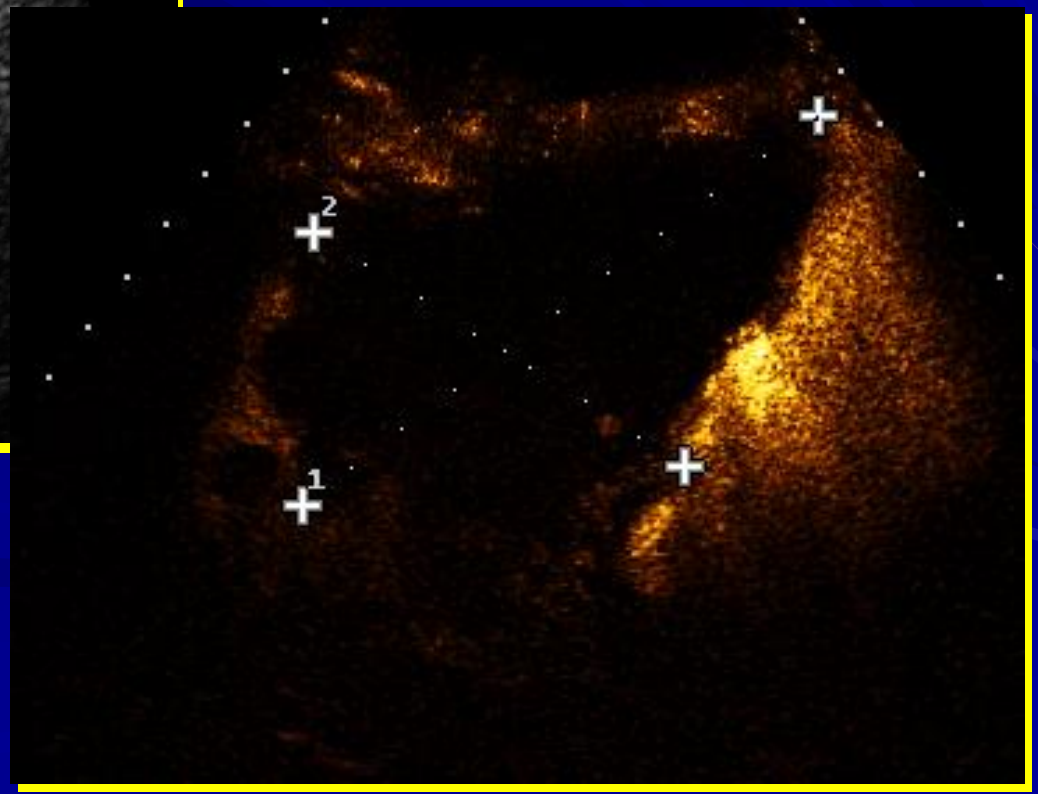
Laser

Microonde

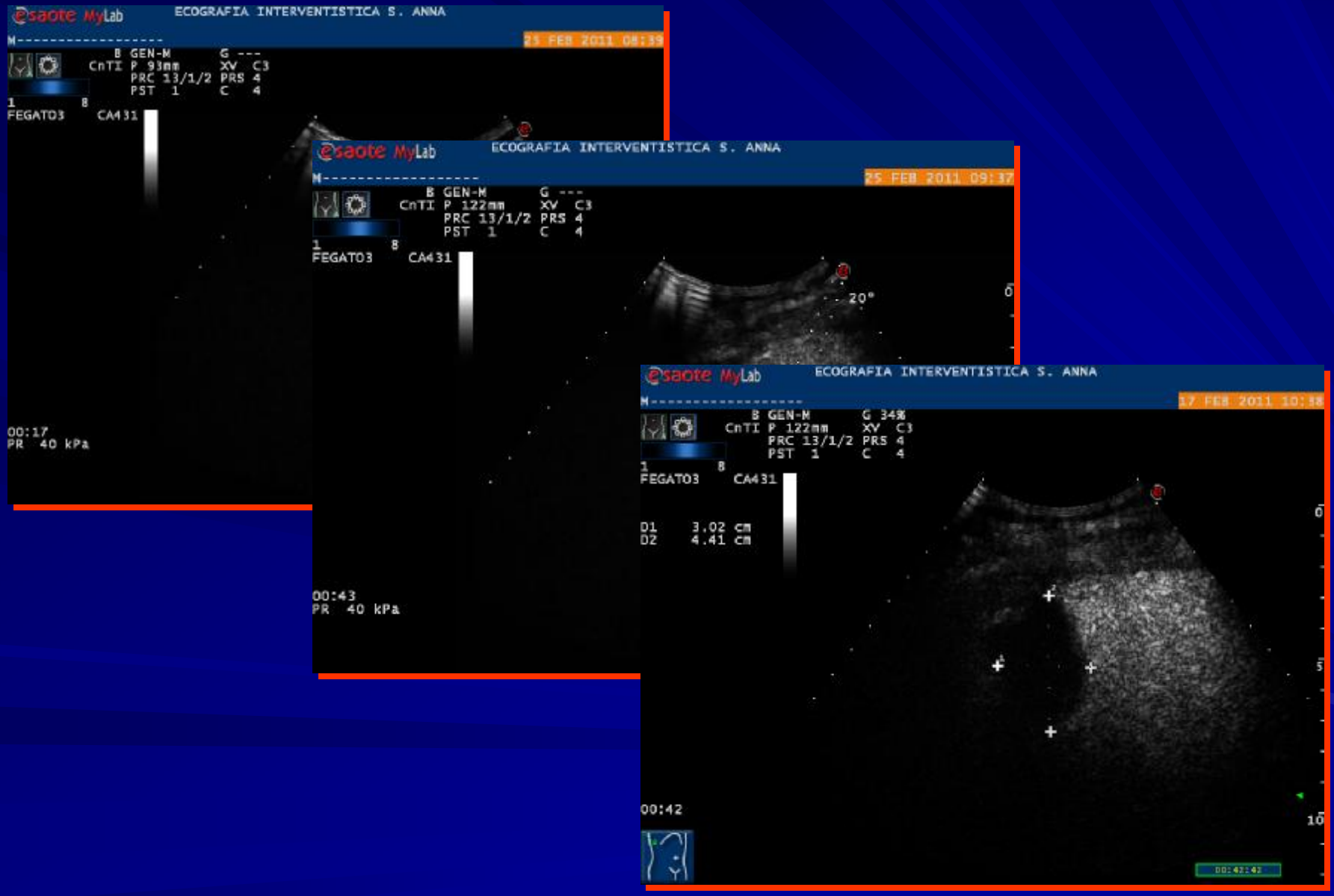


PATs – MW





PATs – Necrosi incompleta e retreatment



World Journal of Gastrointestinal Oncology

Online Submissions: http://www.wjgnet.com/1948-5204office
wjgo@wjgnet.com
doi:10.4251/wjgo.v3.i4.60

World J Gastrointest Oncol 2011 April 15; 3(4): 60-66
ISSN 1948-5204 (online)

BRIEF ARTICLE

Chemotherapy plus percutaneous radiofrequency ablation in patients with inoperable colorectal liver metastases

Joseph Sgouros, James Cast, Krishna K Garadi, Maria Belechri, David J Breen, John RT Monson, Anthony Maraveyas

Radiofrequency Ablation for Metachronous Liver Metastasis from Colorectal Cancer after Curative Surgery

In Ja Park, MD,[1] Hee Cheol Kim, MD,[1] Chang Sik Yu, MD,[1] Pyo Nyun Kim, MD,[2] Hyung Jin Won, MD,[2] and Jin Cheon Kim, MD[1]

J G...
DOI 10.1007/s11605-008-0622-8

Resection Versus Laparoscopic I Ablation Of Solitary Colorectal

Eren Berber · Michael Tsinberg · Gurkan Tellioglu · Conrad H. Simpfendorfer · Allan E. Siperstein

ELSEVIER

Available online at www.sciencedirect.com
ScienceDirect

EJSO 33 (2007) 67–71

EJSO
The Journal of Cancer Surgery
www.ejso.com

Radiofrequency ablation permits an effective treatment for colorectal liver metastasis

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[b] Surgical Clinic Kantonsspital, Rorschacherstrasse 95, 9007 St. Gallen, Switzerland

Colorectal Liver Metastases: Small nique Effectiveness and Survival

· Eva Pagano ·

urvival in 309 patients ctal liver metastases treated requency ablation

PATs e metastasi epatiche da colon-retto

- *Controllo locale*
- *Controllo sulla malattia ???*

Eur Radiol (2009) 19: 1206–1213
DOI 10.1007/s00330-008-1258-5

HEPATOBILIARY-PANCREAS

A. R. Gillams
W. R. Lees

Five-year survival in 309 patients with colorectal liver metastases treated with radiofrequency ablation

In conclusion, this is the first multivariate analysis in a large group of patients to show that [redacted]. Our 5-year survival of 24–33% post ablation in selected patients is superior to any published chemotherapy data and approaches the results of liver resection.

Eur Radiol (2009) 19: 1206–1213
DOI 10.1007/s00330-008-1258-5

HEPATOBILIARY-PANCREAS

A. R. Gillams
W. R. Lees

Five-year survival in 309 patients with colorectal liver metastases treated with radiofrequency ablation

ü ≤ 5 mets ≤ 5 cm ⟶ 5-year survival 34%

ü ≤ 3 mets ≤ 3.5 cm ⟶ 5-year survival 40%

In conclusion, this is the first multivariate analysis in a large group of patients to show that the dominant factors influencing survival post RFA are the liver tumour volume and the absence of extrahepatic disease.

ORIGINAL ARTICLE

Long-Term Outcome of Radiofrequency Ablation for Unresectable Liver Metastases from Colorectal Cancer: Evaluation of Prognostic Factors and Effectiveness in First- and Second-Line Management

Junji Machi, MD, PhD,[a] Andrew J. Oishi, MD,[a] Kenneth Sumida, MD,[a] Kazuhiro Sakamoto, MD, PhD,[a] Nancy L. Furumoto, MD,[a] Robert H. Oishi, MD,[a] *Honolulu, Hawaii*, Jelle W. Kylstra, MD,[b] *Fremont, California*

However, new liver or extrahepatic recurrence is common. To prevent and control such recurrences

The present study suggests greater survival benefit when RFA is used

RFA can contribute to encouraging long-term survival. Prognostic factors have been identified. Compared with historical survival,

(Cancer J 2006;12:318–326)

Resection versus no intervention or other surgical interventions for colorectal cancer liver metastases (Review)

Fedorowicz Z, Lodge M, Al-asfoor A, Carter B

THE COCHRANE COLLABORATION®

Local ablative therapies are probably useful, but they need to be further evaluated in adequately powered and well designed randomized controlled trials.

RCT – E' proprio facile organizzarli?

- *Caratteristiche dei pazienti e del tumore (stadio, CEA, margine resezione, D-free Interval tra T e mets…)*
- *Numero metastasi?*
- *Dimensioni metastasi?*
- *Malattia extraepatica?*
- *Solo pazienti non resecati?*
- *Differenti metodiche di ablazione?*
- *Differente livello di esperienza degli operatori?*
- *CT prima, durante o dopo?*
- *Altri tipi di trattamenti associati o sequenziali?*
- *End-points: overall survival?!?!*
- *Preferenze dei pazienti?*

EORTC
European Organisation for Research and Treatment of Cancer
AISBL International Non-Profit Association under Belgian law IVZW

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Intergroup Study (EORTC 40004)

CLOCC trial (Chemotherapy + Local ablation versus Chemotherapy). Randomized phase III study of local treatment of liver metastases by radiofrequency combined with chemotherapy versus chemotherapy alone in patients with unresectable colorectal liver metastases

Trial Status	**Further follow-up after final analysis of primary endpoint**
Dates	**Date of activation: 16/04/2002** **Closed on : 20/06/2007**

CLOCC Trial - When the mountain brings forth a mouse… Part 1

Disegno dello studio

- ü *Mets non chirurgiche*
- ü *< 10 mets ≤ 4 cm; coinvolgimento epatico ≤ 50%*
- ü *Ammessa pregr. CT adiuvante o per mets epatiche*
- ü *Ammessa associazione RF + chirurgia*

End-points

I: 30-month OS > 38%

II: PFS

Numerosità campione: 390 pazienti

CLOCC Trial - When the mountain brings forth a mouse… Part 2

- *Pazienti arruolati: 119 (in 5 anni e 2 mesi…)*
- ***30-month OS***

- RF+CT	*64.9% (CI 51.13±77.09)*
- CT	*56.9% (CI 42.23±69.84)*

- ***PFS***

- RF+CT	*16.8 mesi*
- CT	*9.9 mesi (p=0.025)*

"…the benefit in overall survival of adding RFA to CT is uncertain"

Percutaneous Radiofrequency Ablation for Unresectable Colorectal Liver Metastases: Time for Shadows to Disperse

"Albeit optimal indications are still pending, percutaneous RFA should nonetheless be considered a viable option in patients with unresectable metastatic disease, as it may prolong survival rates achieved with standard chemotherapy"

Reviews on Recent Clinical Trials
Volume 4 Issue 3 2009

VOLUME 28 · NUMBER 3 · JANUARY 20 2010

JOURNAL OF CLINICAL ONCOLOGY

American Society c
Evidence Review o

1. RCTs comparing hepatic resection to RFA for resectable hepatic colorectal metastases.
2. Studies documenting the safety and efficacy of RFA. Ideally, this would be performed by randomized controlled trials of:
   a. RFA versus hepatic resection for oligometastatic hepatic colorectal metastases;
   b. Systemic chemotherapy versus RFA plus systemic therapy for liver-predominant CRHM;
   c. Conversion chemotherapy as an approach for patients who have unresectable tumors but have limited liver disease; and
   d. The role of RFA for patients who have progressed after all

There is a compelling need for more research to determine the efficacy and utility of RFA

mors, the Par
local recurren
addition to OS

There are no published RCTs examini
CRHM,

immediate intraprocedural monitoring of ablation (eg, contrast enhanced sonography, sonoelastography, MR thermography) and type, timing, and frequency of imaging follow-up (eg, CT perfusion, MRI diffusion, perfusion, elastography, and PET/CT). Research that is directed toward the optimization and validation of these imaging platforms, systems, tests, and techniques specifically for use before, during, and after image-guided interventions is important.

7. Technical studies to improve the technology to enhance utility of RFA, including studies to improve placement of probes in relation to vasculature and other critical structures (thermal treatment planning), accuracy of placement of probes (virtual reality, real-time image guidance, fusion imaging systems, robotic probe placement), and efficiency of probes (bipolar, energy wave forms) should be stressed to improve efficacy.
8. Studies comparing RFA with other liver-directed treatment options for CRHM (eg, cyrotherapy, microwave ablation, transarterial infusional, embolic therapies).

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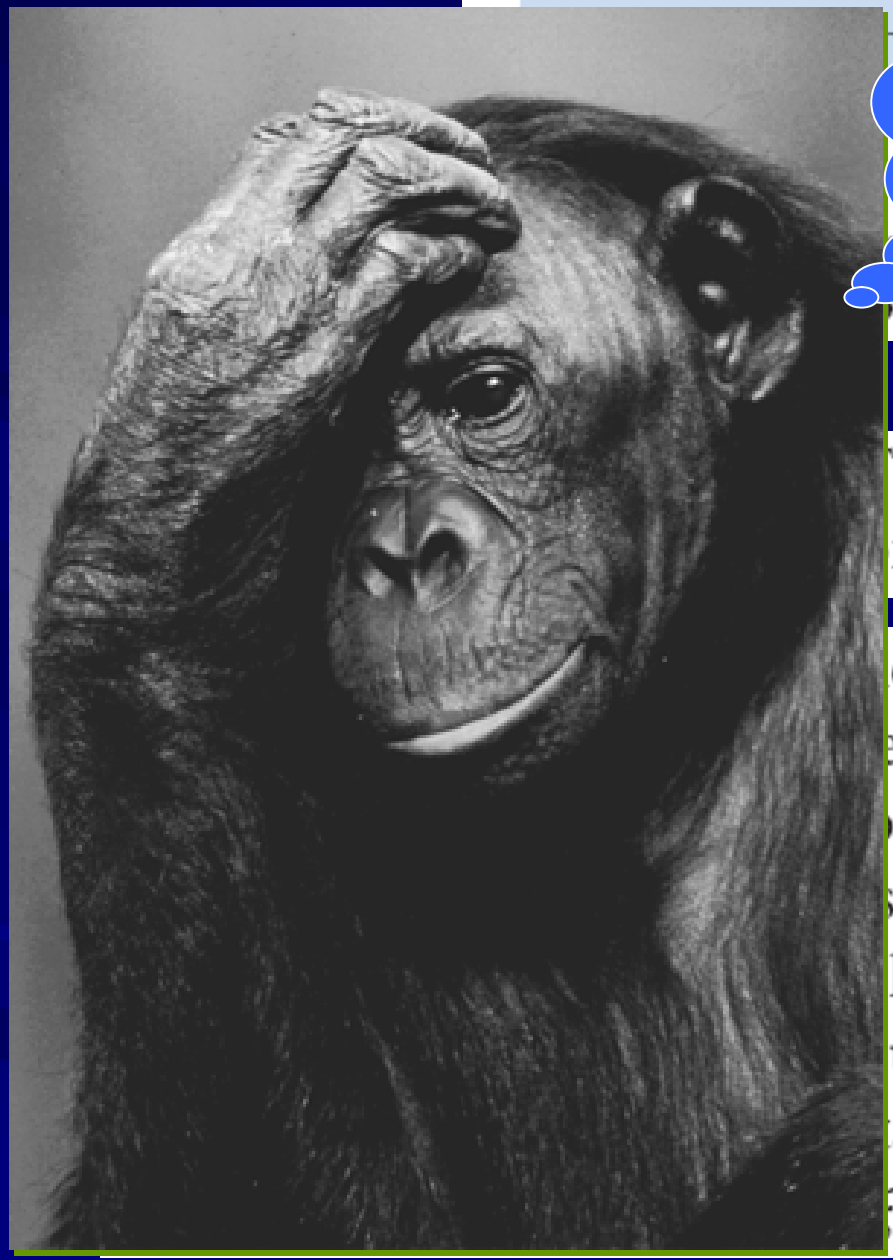
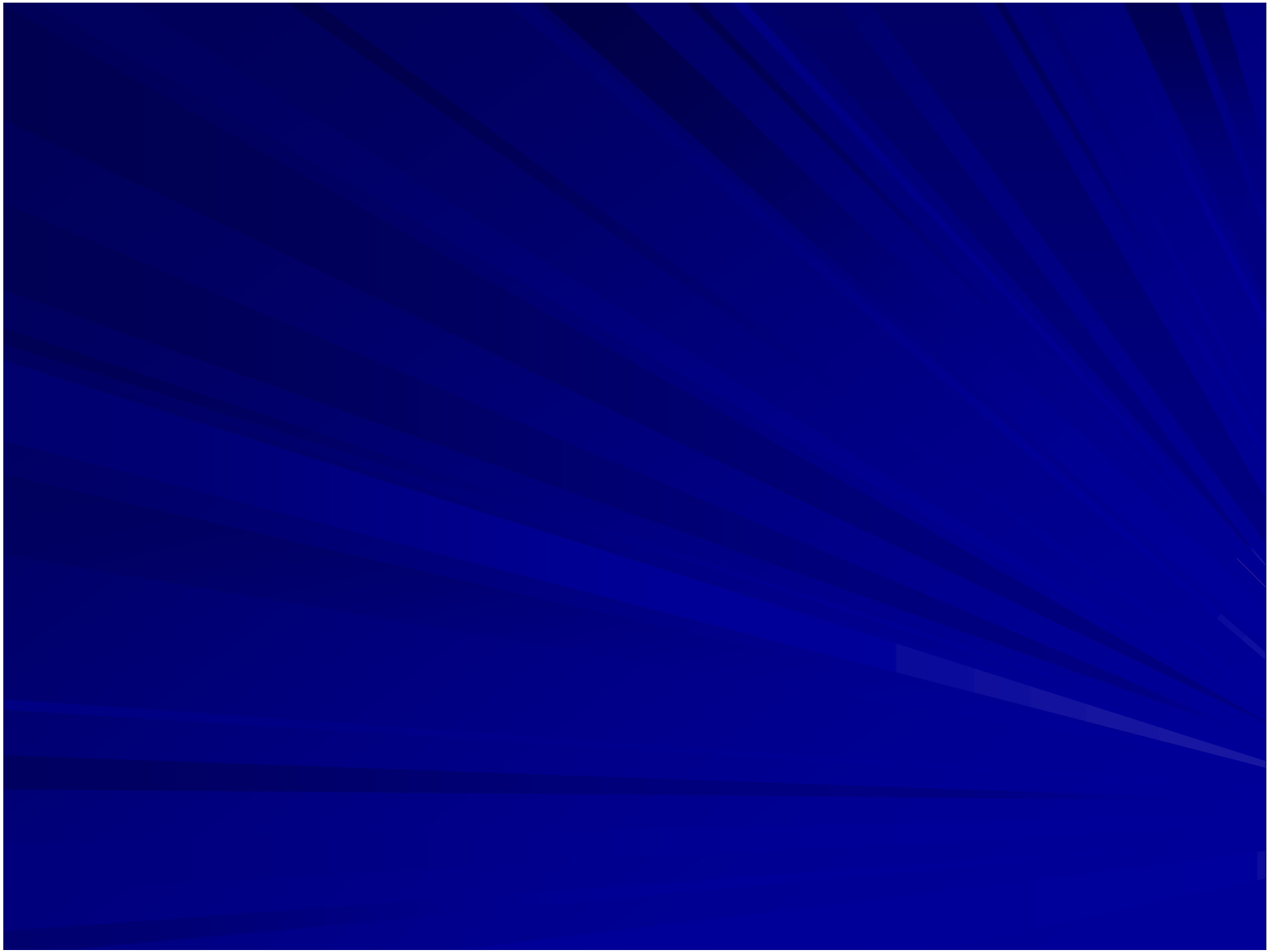


VOLUME 27 · NUMBER

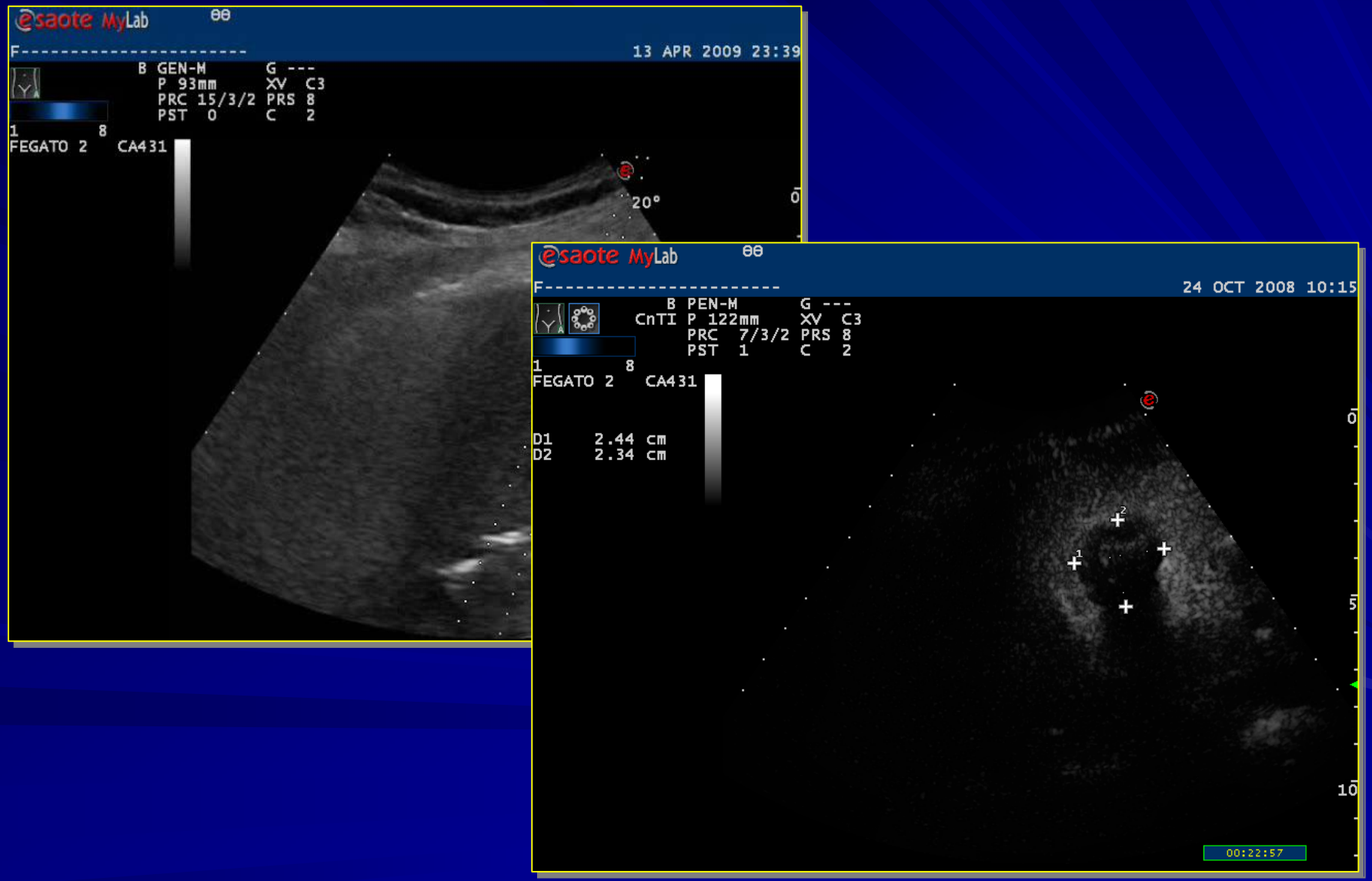
re I Am Perfect

trial[2] is the only trial that shows the
mparison with docetaxel

e ancient Greek philosophers named
structure of argumentation support-
(A is better than B, C is noninferior to
better than B). However, the actual
literature (gefitinib is noninferior to
ut it is nonsuperior to placebo [ISEL
axel [TAX 317 trial][4]) could probably
ος λογος" (paradox).



PATs – Laser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