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Istituto Europeo di Oncologia

SISTEMA SANITARIO REGIONALE
+
AZIENDA OSPEDALIERO-UNIVERSITARIA
SANT'ANDREA

Meeting

Scuola di Specializzazione in Radiodiagnostica

21/05/2021

Dott.ssa Elena Lucertini





Meeting 2020.pptx

Cerca nella presentazione

Inicio Temi Tabelle Grafici SmartArt Transizioni Animazioni Presentazione Revisione

Diapositive: Nuova diapositiva, Layout, Sezione
 Tipo di carattere: G, C, S, ABC, A², A₂, A₂, A₂
 Paragrafo: [List, Indent, Bullets, Paragraph styles]
 Inserisci: [Table, Image, Media]
 Formato: Disponi, Stili veloci, Riempi, Linea
 Presentazione: Riproduci

Diapositive Struttura

16 CT/MRI LI-RADS® v2018 CORE

17 CT/MRI LI-RADS® v2018 CORE

18 CT/MRI LI-RADS® v2018 CORE

19 CT/MRI LI-RADS® v2018 CORE

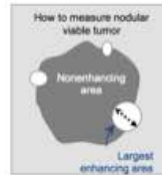
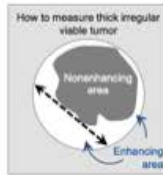
20 [Image]



CT/MRI LI-RADS® v2018 CORE

CT/MRI Treatment Response Table

Response Category	Criteria
LR-TR Nonviable	<ul style="list-style-type: none"> No lesional enhancement OR Treatment-specific expected enhancement pattern
LR-TR Equivocal	Enhancement atypical for treatment-specific expected enhancement pattern and not meeting criteria for probably or definitely viable
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Size of equivocally, probably, or definitely viable tumor

Longest dimension through enhancing area of treated lesion, not traversing nonenhancing area



OBJECTIVE RESPONSE CRITERIA

- **WHO (1979)**
 - Tumor response in the treatment of solid tumors
- **RECIST 1.0 (2000)**
 - Based on change in **tumor size**
 - Built for clinical trials; thresholds defined arbitrarily
- **RECIST 1.1 (2009)**
 - Response criteria: CR, PR, SD, PD



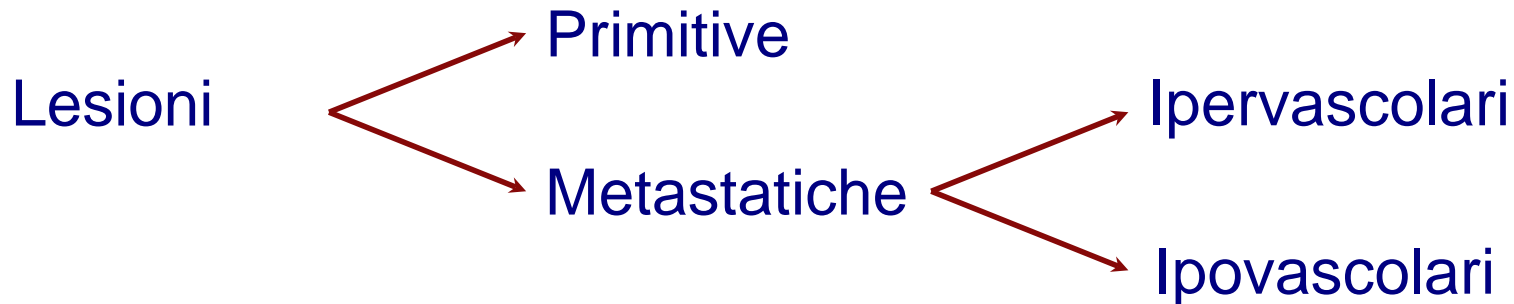
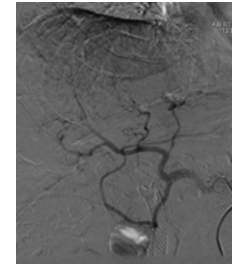
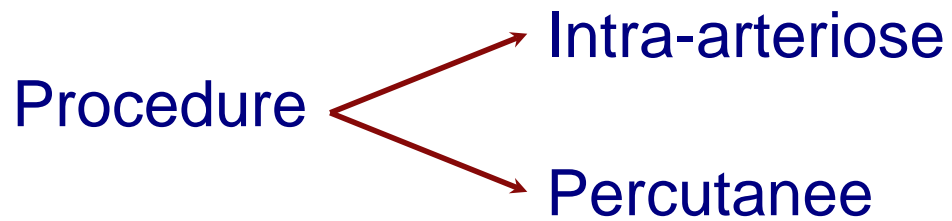
Follow-up post trattamenti oncologici loco-regionali

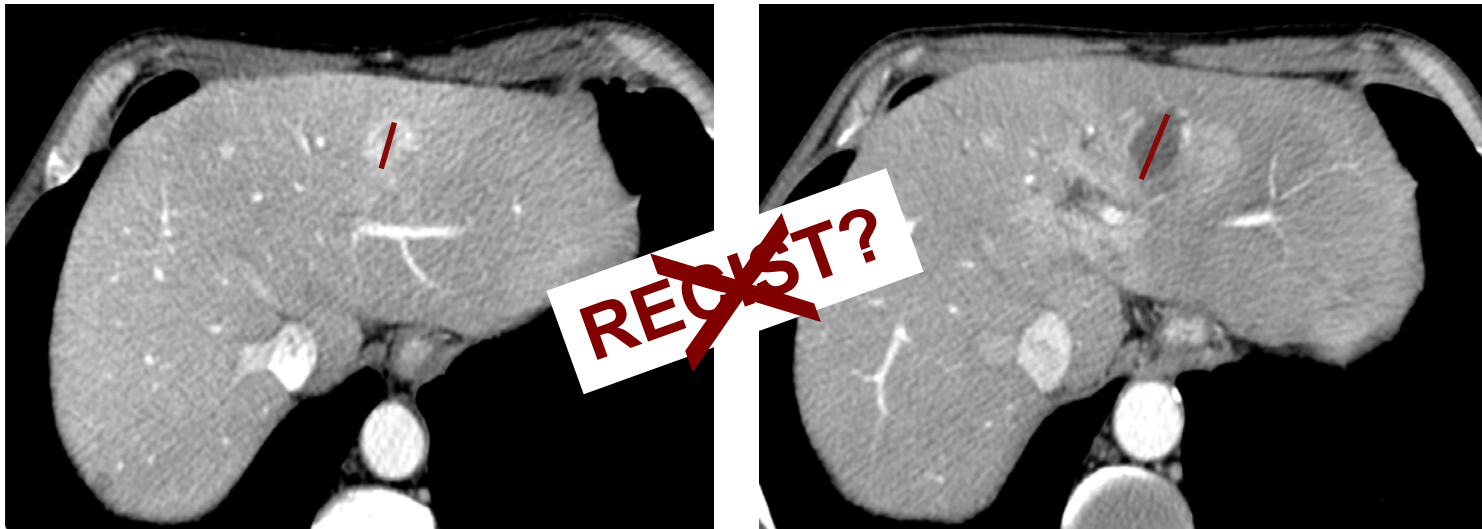


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Concetto di «tumore vitale»

Tessuto vitale:

- Prende contrasto
- Cresce

Lesioni ipervascolari VS ipovascolari



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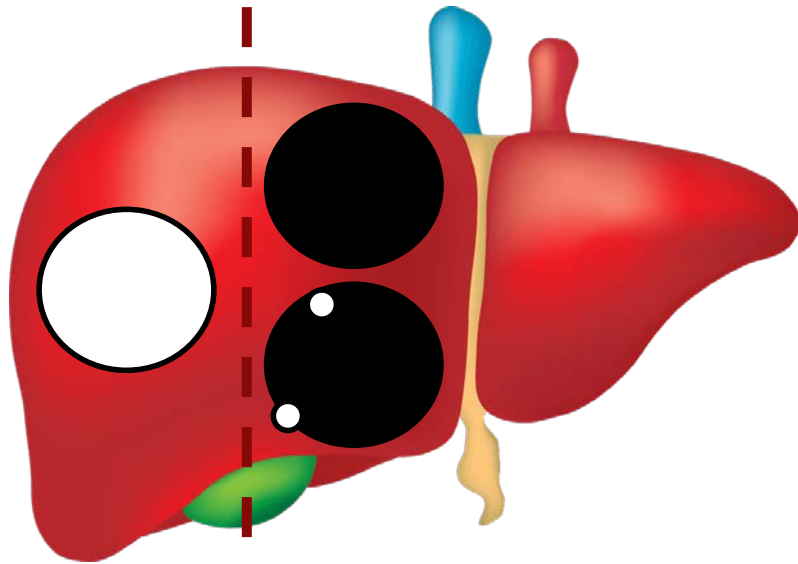


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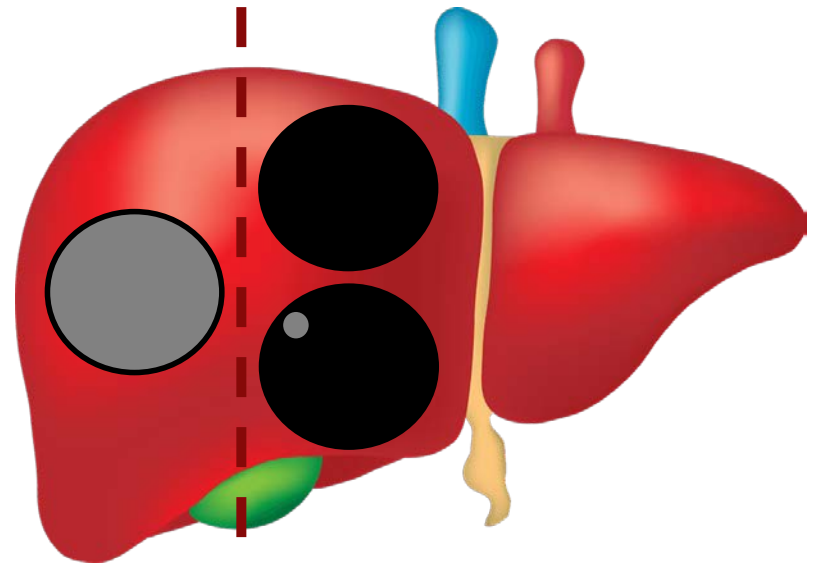
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Before

After



Before

After

Lesioni ipervascolari



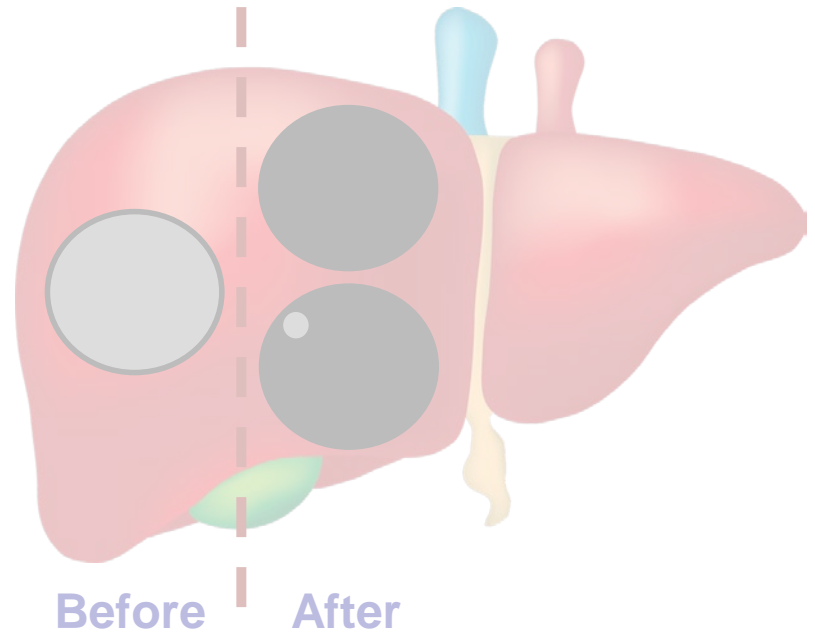
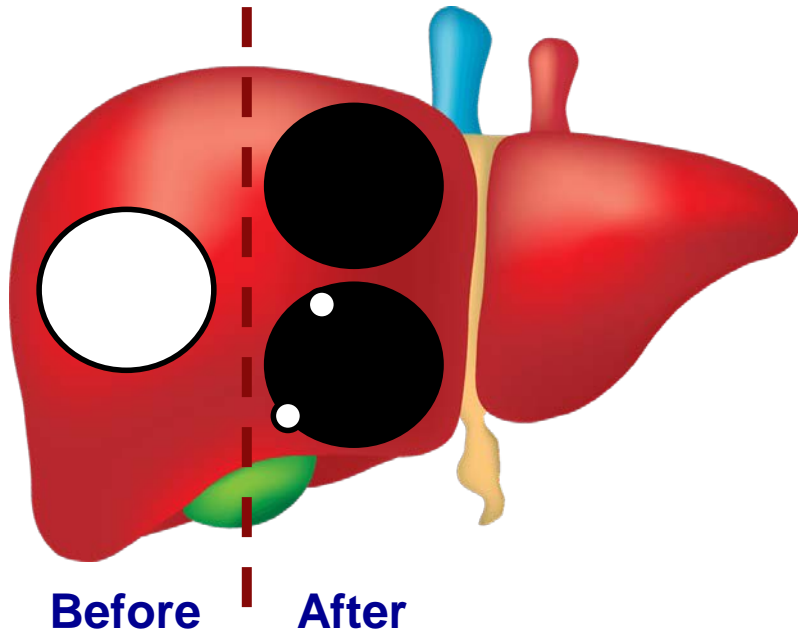
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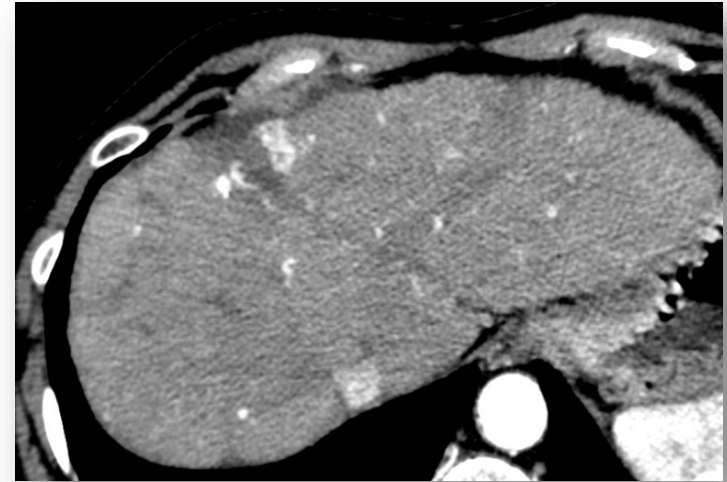


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- RECIST 1.1 per terapie sistemiche
- mRECIST per loco-regionali
- Tumore vitale:
 - Porzione di tumore che mostra enhancement *
- **Criteri basati sulle dimensioni del TUMORE VITALE**



ATTENZIONE: dopo procedure intra-arteriose, agente embolizzante può rimanere per qualche giorno nell'area trattata!



RECIST

CR = Disappearance of all target lesions

PR = At least a 30% decrease in the sum of diameters of target lesions, taking as reference the baseline sum of the diameters of target lesions

SD = Any cases that do not qualify for either partial response or progressive disease

PD = An increase of at least 20% in the sum of the diameters of target lesions, taking as reference the smallest sum of the diameters of target lesions recorded since treatment started

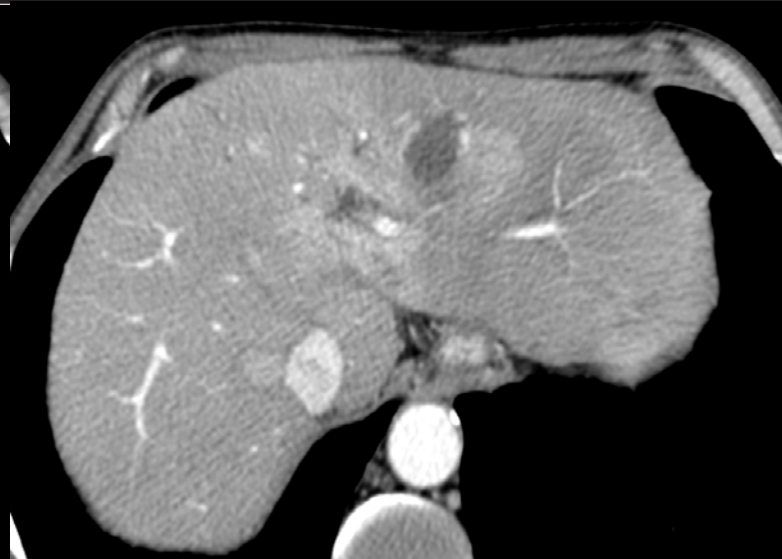
mRECIST for HCC

→ CR = Disappearance of any intratumoral arterial enhancement in all target lesions

PR = At least a 30% decrease in the sum of diameters of viable (enhancement in the arterial phase) target lesions, taking as reference the baseline sum of the diameters of target lesions

SD = Any cases that do not qualify for either partial response or progressive disease

PD = An increase of at least 20% in the sum of the diameters of viable (enhancing) target lesions, taking as reference the smallest sum of the diameters of viable (enhancing) target lesions recorded since treatment started



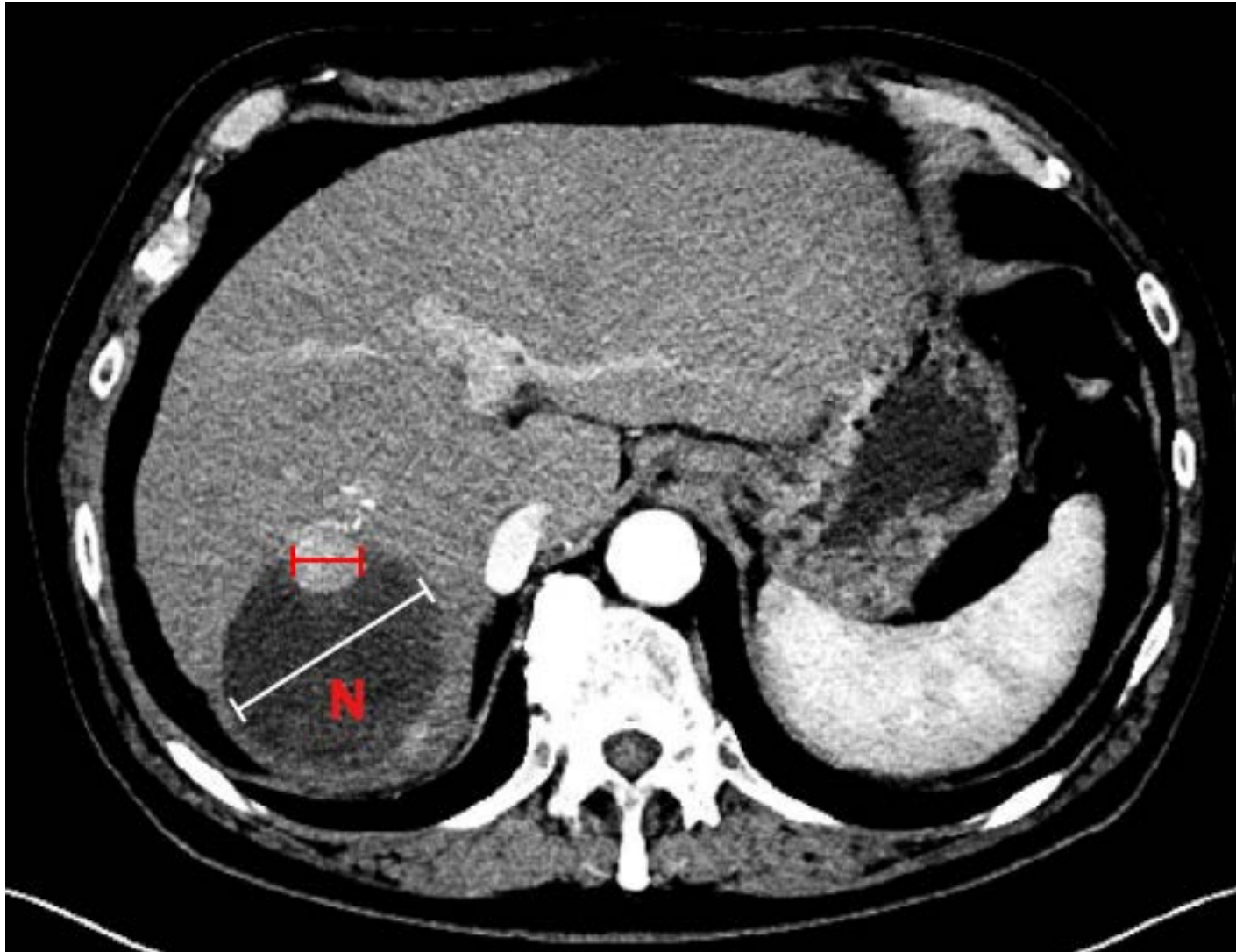
Lesioni ipervascolari



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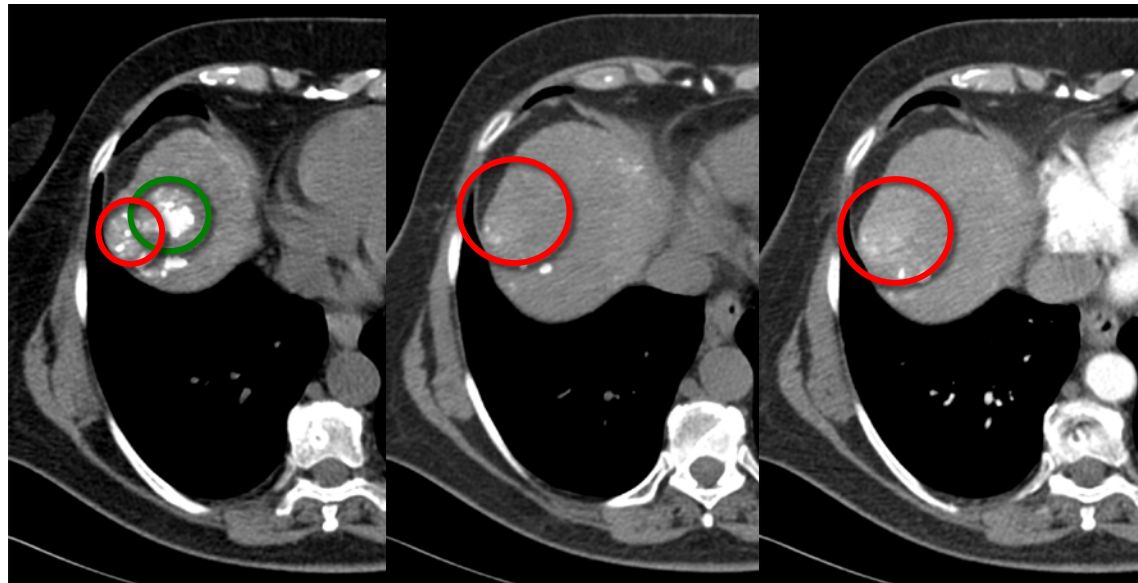
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- Entro 1 mese ci può essere enhancement periferico dovuto a flogosi -> FU a 6 settimane, 3 mesi, 6 mesi
- HCC atipici/ipovascolari
- HCC trattati con cTACE (Lipiodol)
 - RM > TC



“Delle due lesioni, una presenta omogenea impregnazione con Lipiodol, l’altra mostra scarsa concentrazione di Lipiodol e appare ipervascolare in fase arteriosa, come per persistenza di malattia”

Fondamentale scansione basale!

Lesioni ipervascolari: l'importanza della scansione basale



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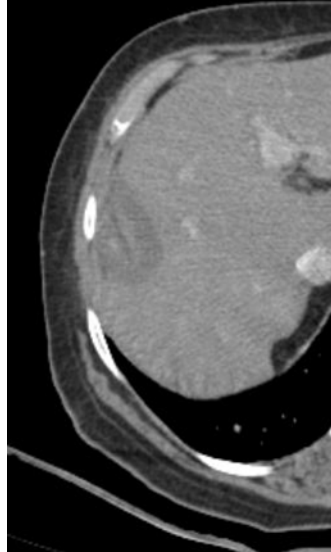
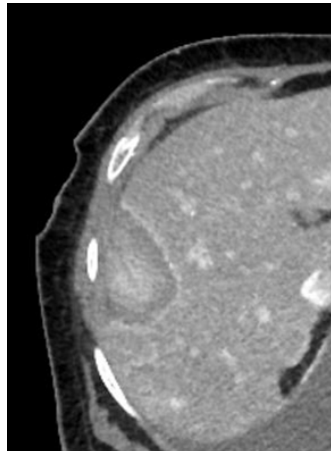
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Distinguere enhancement da materiale embolizzante/necrosi coagulativa



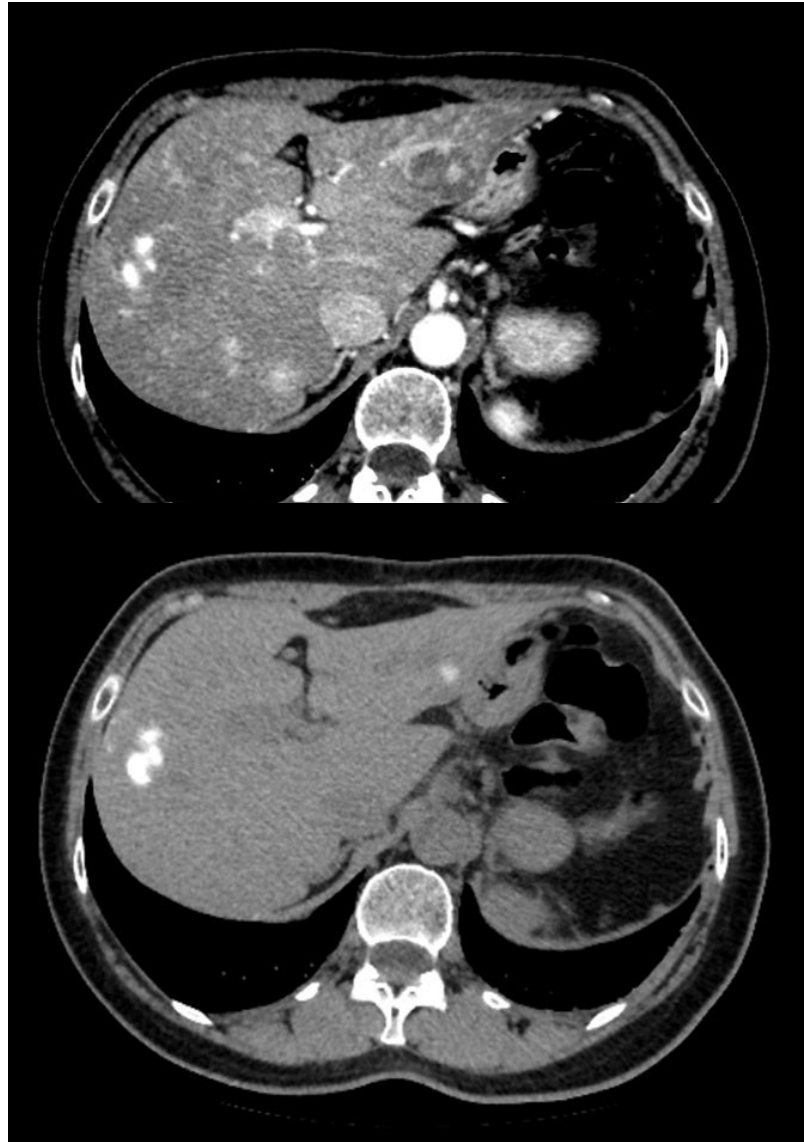
Lesioni ipervascolari: l'importanza della scansione basale



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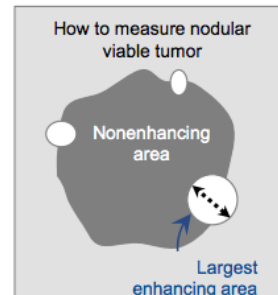
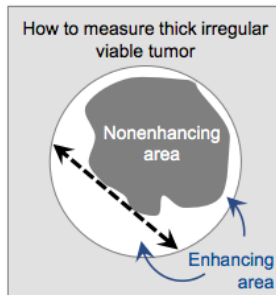




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Lesioni ipervascolari VS ipovascolari



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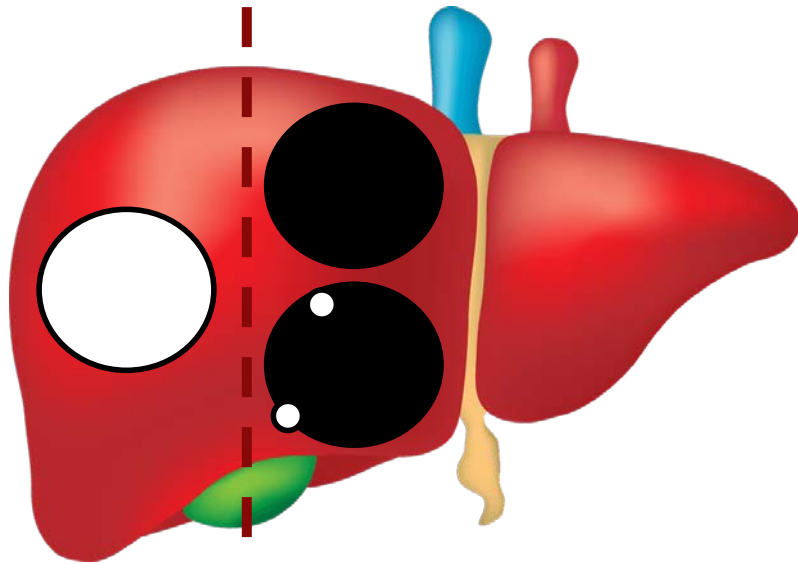


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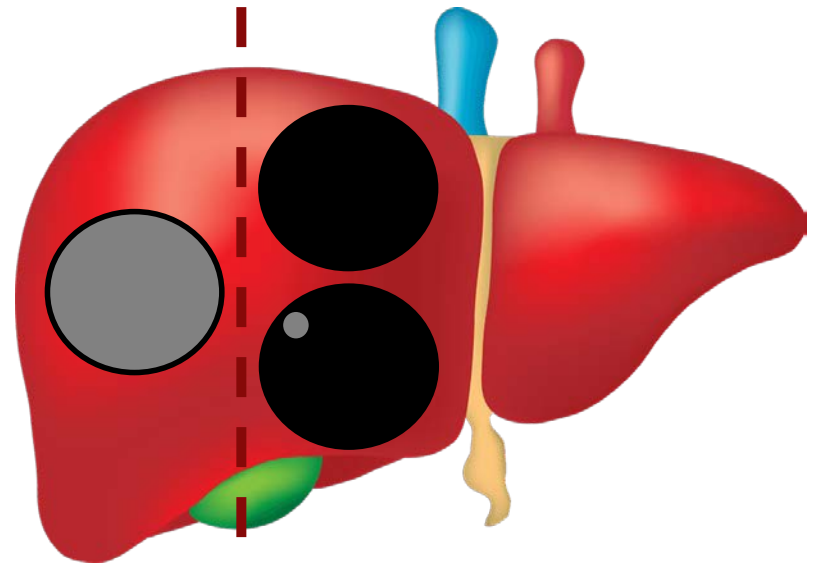
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Before

After



Before

After

Lesioni ipovascolari



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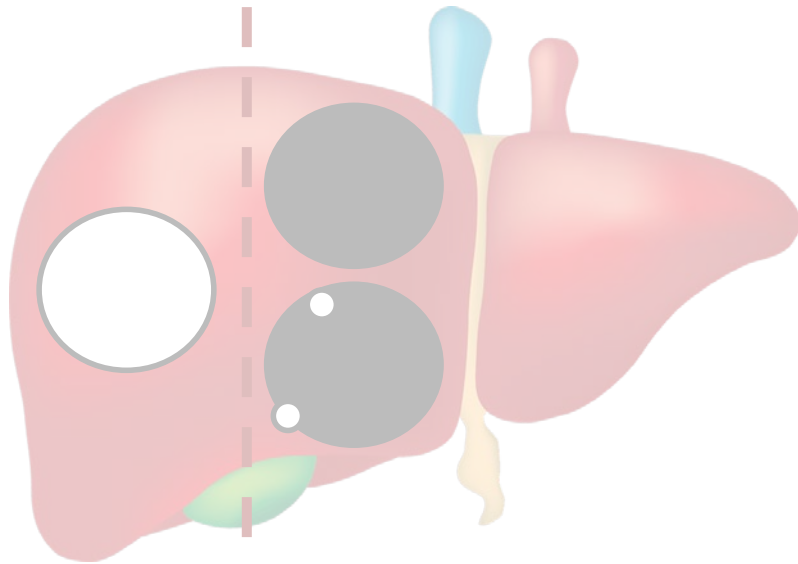


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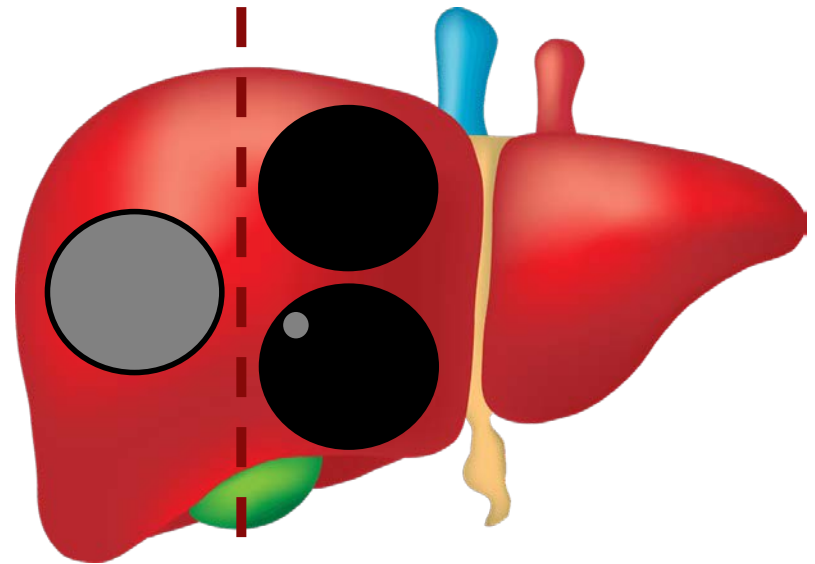
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Before

After



Before

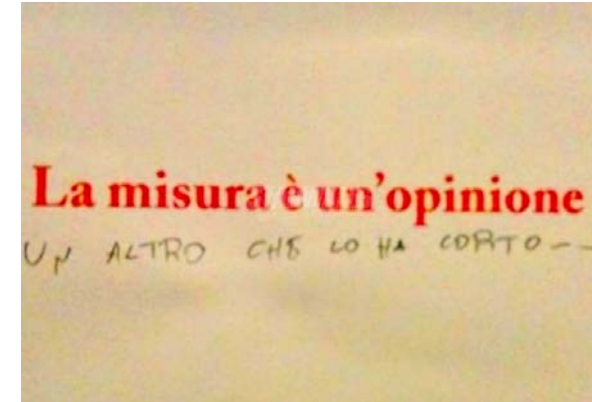
After



- RM e PET-TC > TC
- PET-TC solo nelle lesioni > 2 cm
- PET-TC nelle termoablazioni è meglio o entro 24-48h, o dopo almeno 4 mesi (rischio falsi positivi)



Le dimensioni contano?



- **NO** entro i primi 3-6 mesi
- **SI** nei controlli successivi, rispetto al follow-up a 3-6 mesi (NON al baseline!)

Concetto di «tumore vitale»

Tessuto vitale:

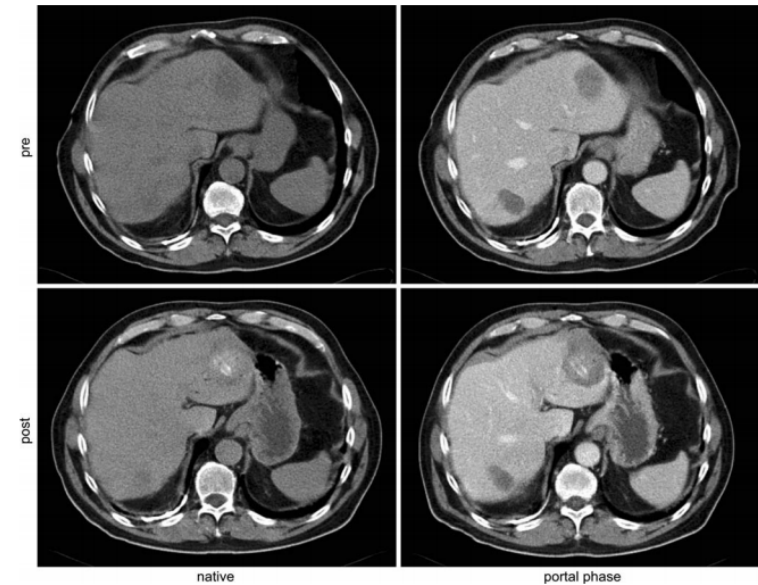
- Prende contrasto
- **Cresce**



TC – worrisome signs

- Aumento dimensionale dell'area trattata
> 3-6 mesi
- Irregolarità dei margini dell'area trattata
- Scarsi margini di sicurezza
(termoablazione)

Analisi morfologica delle zone ablate con TC eseguita entro 24h da RFA/MWA è utile nell'individuare residui di malattia



Lesioni ipovascolari: margini di sicurezza in RFA/MWA



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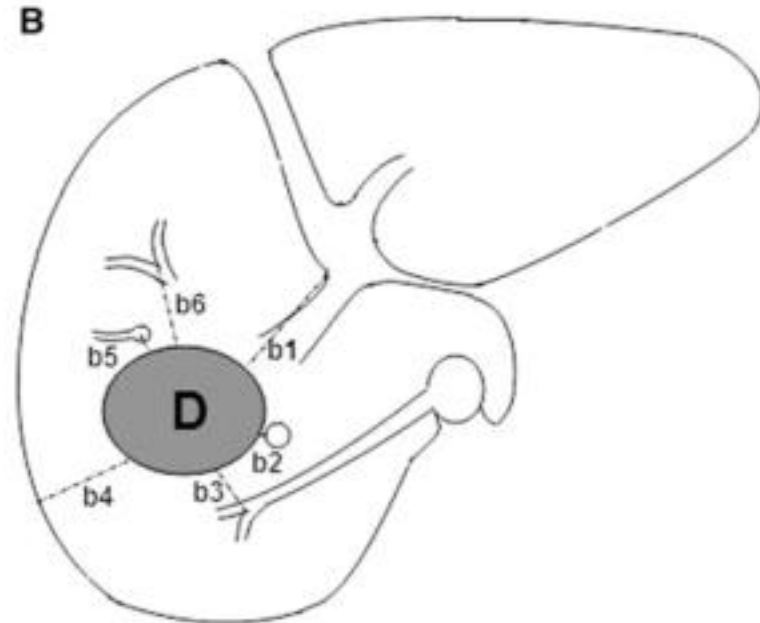
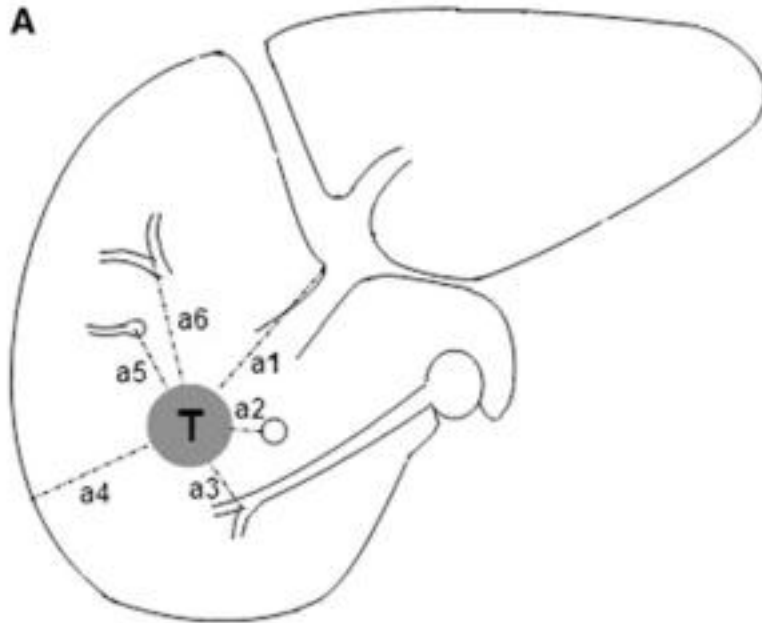


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Reperi:

- Preferibilmente intra-epatici (vasi, vie biliari)
- Margini epatici

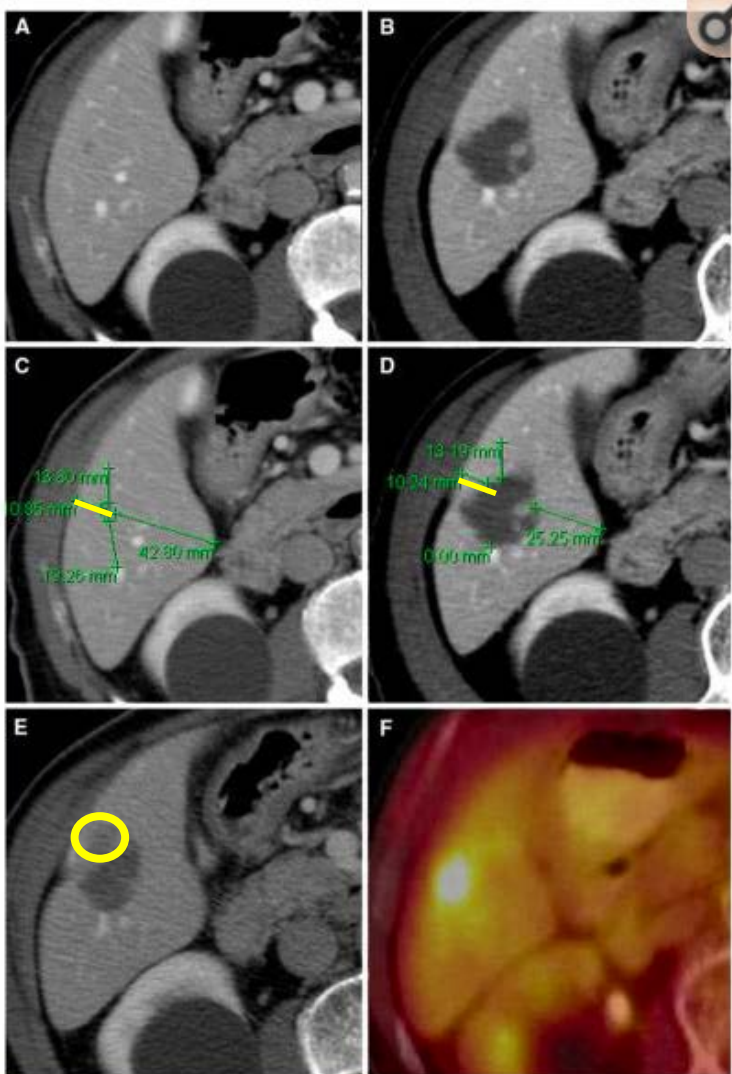
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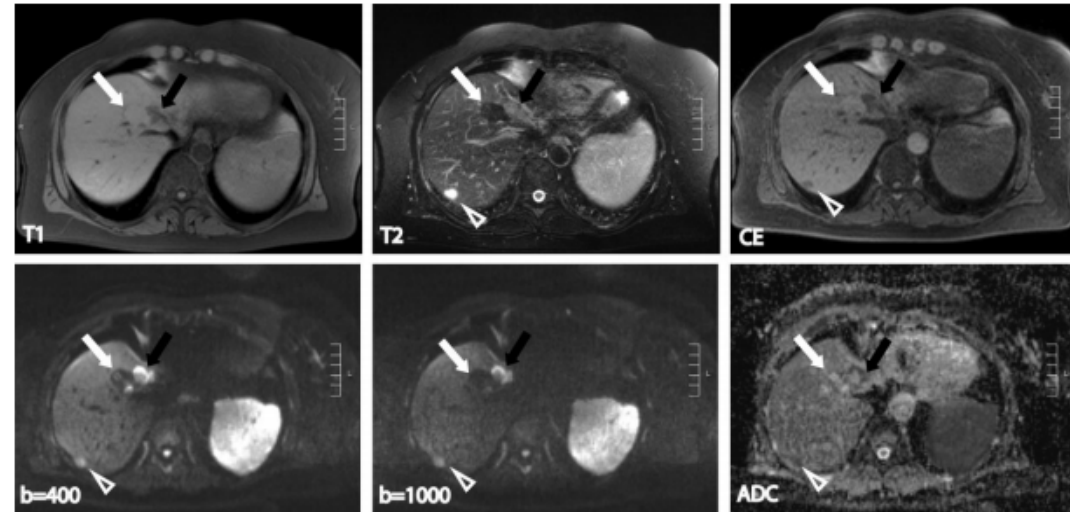


Scarso margine a ore 10-11



RM – worrisome signs

- Aumento dimensionale
> 3-6 mesi
- Iperintensità in T2 > 6 settimane
- Iperintensità in DWI ad alti valori di B **+ ipointensità in ADC***
- Iperintensità in T1 > 9 mesi



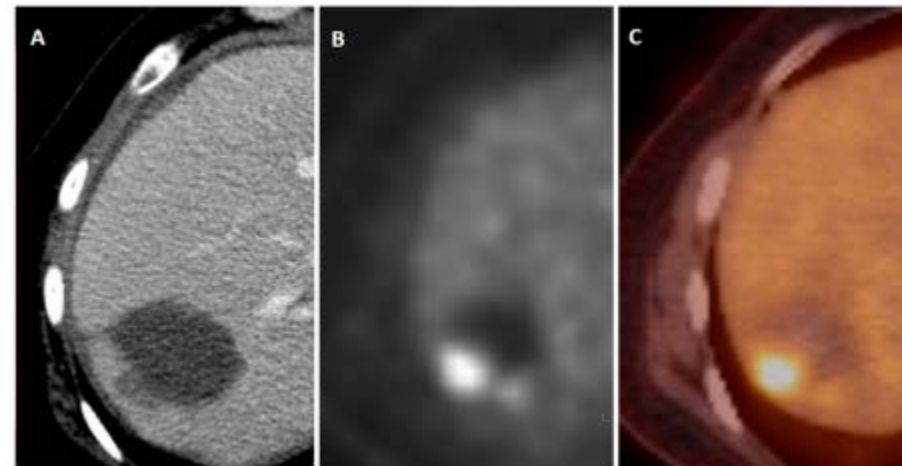
*attenzione ai falsi positivi a b1000!



PET-TC – worrisome signs

- Focale, eccentrica o ad anello periferico area di ipercaptazione di FDG 4-6 mesi dopo l'ablazione*

*Possibile captazione dovuta agli effetti infiammatori entro 4 mesi
Evitabili entro 24-48h





Caso 1: 79 anni, metastasi da CRC; RFA



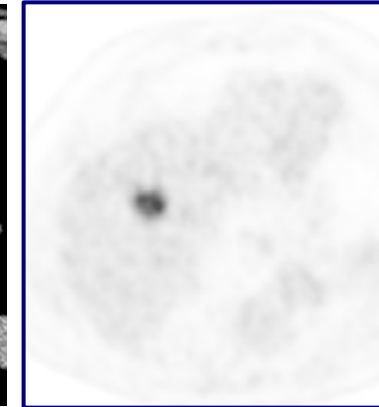
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21/12/2019



20/04/2020





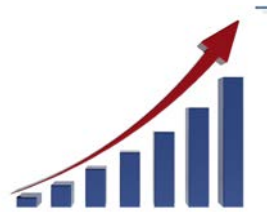
Caso 2: 61 anni, metastasi da CRC; multiple resezioni epatiche e termoablazioni (ultima a settembre 2020)

CEA: - pre termoablazione: 9.0

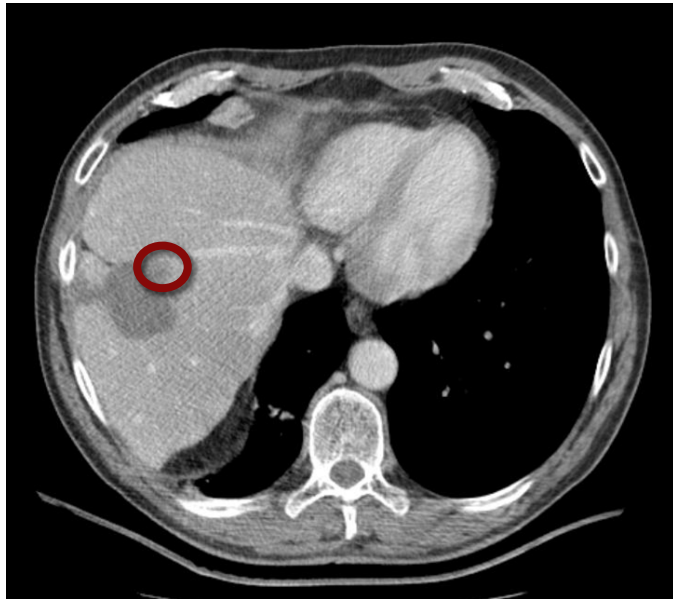
- dicembre 2020

- gennaio 2021

- febbraio 2021

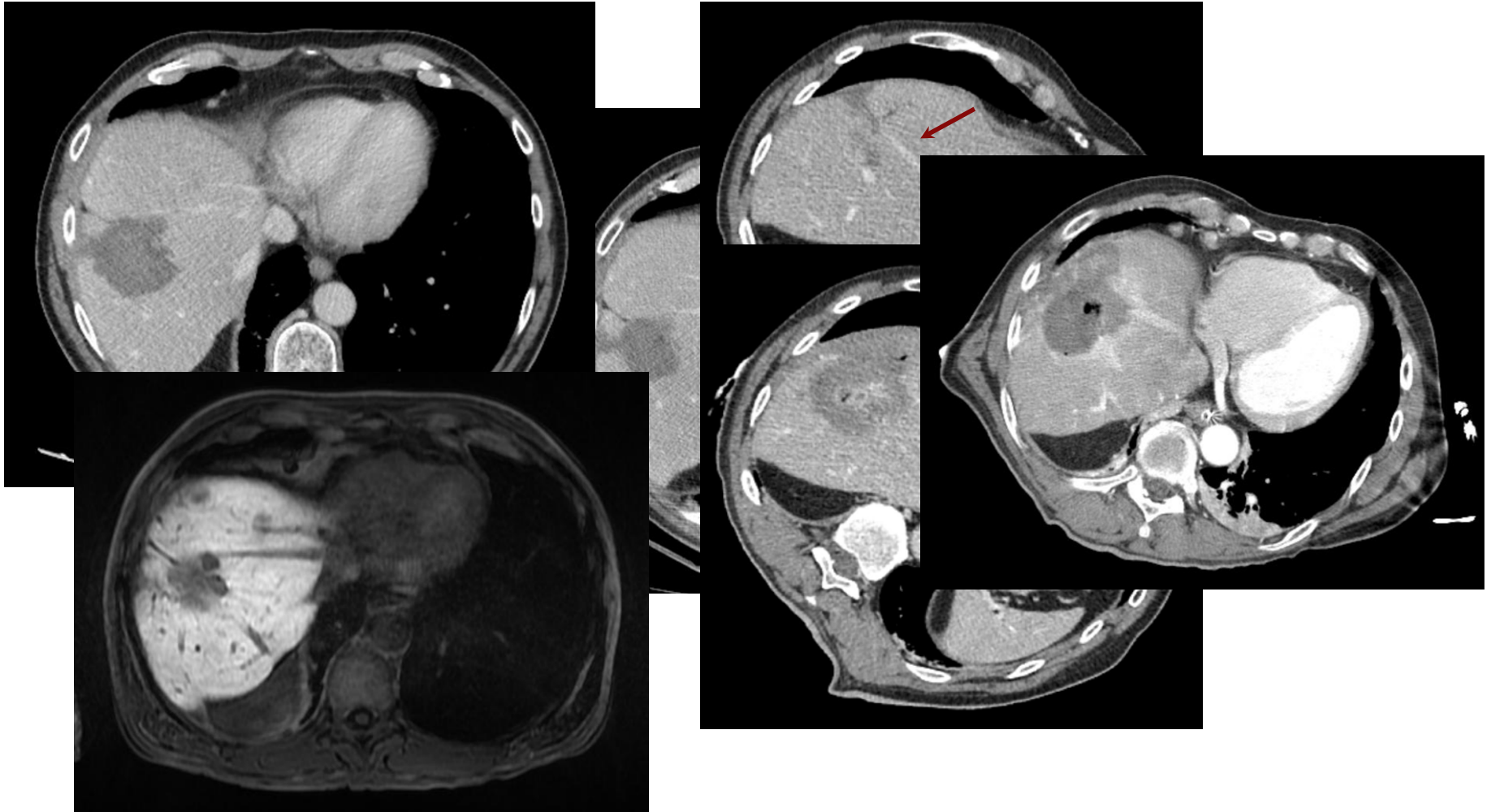


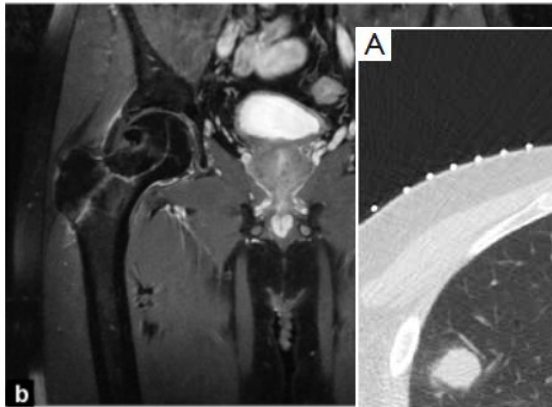
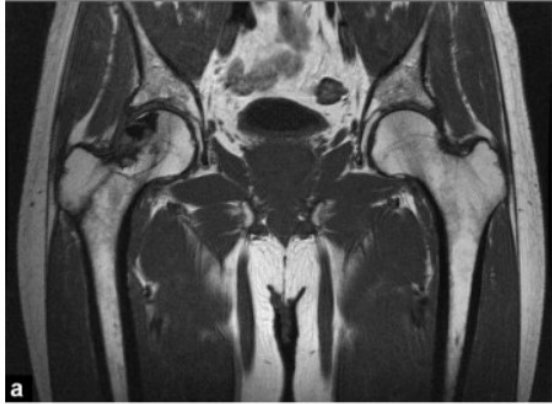
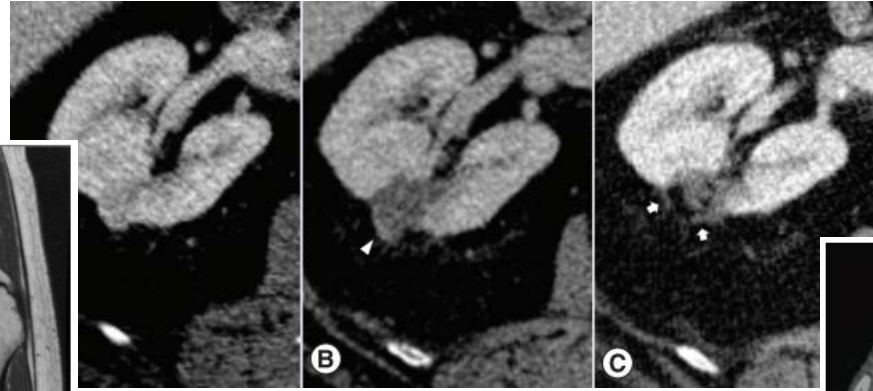
TC gennaio 2021: “esiti di termoablazione”





Caso 2: 61 anni, metastasi da CRC; multiple resezioni epatiche e termoablazioni (ultima a settembre 2020)





Grazie per l'attenzione!

