



Ospedale
Sacro Cuore Don Calabria

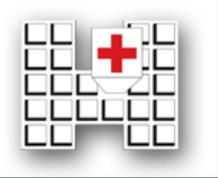
Negrar, 11 Ottobre 2016

TARE

Radioembolizzazione

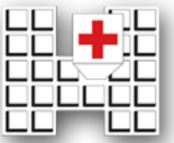
Dipartimento di Diagnostica per Immagini

G. Taddei, E. Oliboni

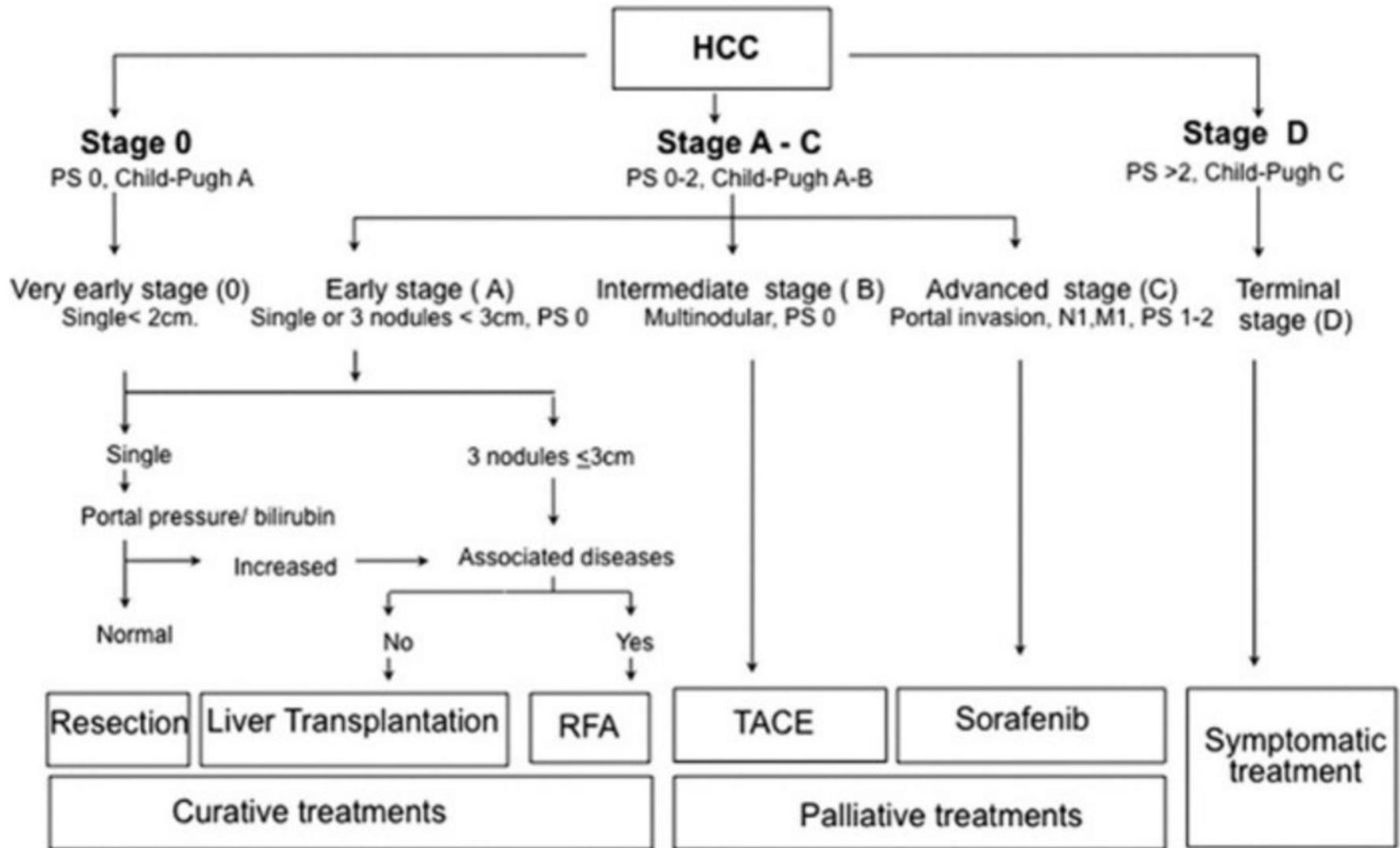


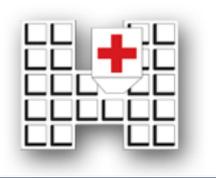
TARE - Definizione

Iniezione di particelle radioattive con accesso arterioso come per la TACE



TACE





TARE nell'HCC

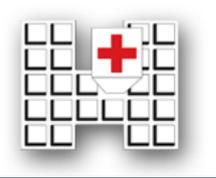
- **TACE non praticabile o inefficace**
(Trombosi Portale)
- Stadio clinico: CHILD A o B
- Localizzazione intraepatica
- Tumori singoli o multipli non resecabili
chirurgicamente
- PEI o Termoablazione non praticabili

Dimensioni della lesione

Diffusione (>3 noduli)

Anatomia

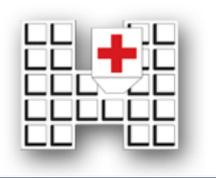
Visibilità ecografica



TARE – Indicazioni nell’HCC

CHILD A-B

- ◆ In attesa di trapianto
 - Downstaging
 - Allungare la sopravvivenza in funzione delle lunghe liste d’attesa (>6mesi)
 - Ipertrofia compensatoria del fegato sano



TARE – Controindicazioni

- Cirrosi scompensata (Child C e D)
- Tumori estesi con massiva sostituzione di entrambi i lobi
- Diffusione extraepatica (metastasi)
- Gravi malattie associate:
 - Insufficienza renale
 - Cardiopatie gravi
 - Altre neoplasie associate



TARE

Iniezione di microparticelle radioattive con accesso arterioso come per la TACE

Le particelle hanno diametro 20-35micron

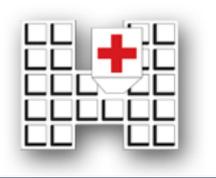
Sono caricate con Yttrio 90 con una penetrazione media di 2,5 mm (efficaci solo localmente)

La dose radiante viene calcolata alcuni giorni (circa 10) prima della procedura con la somministrazione selettiva di un marcatore

Deve essere garantita una dose efficace al tumore con esclusione delle strutture sane (fegato, polmone, tratto GI)

È necessario individuare eventuali vie ematiche di fuga del farmaco

Molto costosa e molto complessa



Differenze TARE/TACE

- Minimo effetto embolizzante (particelle molto piccole)
- Meglio tollerata
- Sindrome post trattamento più lieve che per TACE
- Risposta superiore a TACE in Pazienti selezionati
- Indicata in casi di TP

- Le complicanze polmonari e o intestinali possono essere importanti

Proponibile anche dove la TACE non indicata

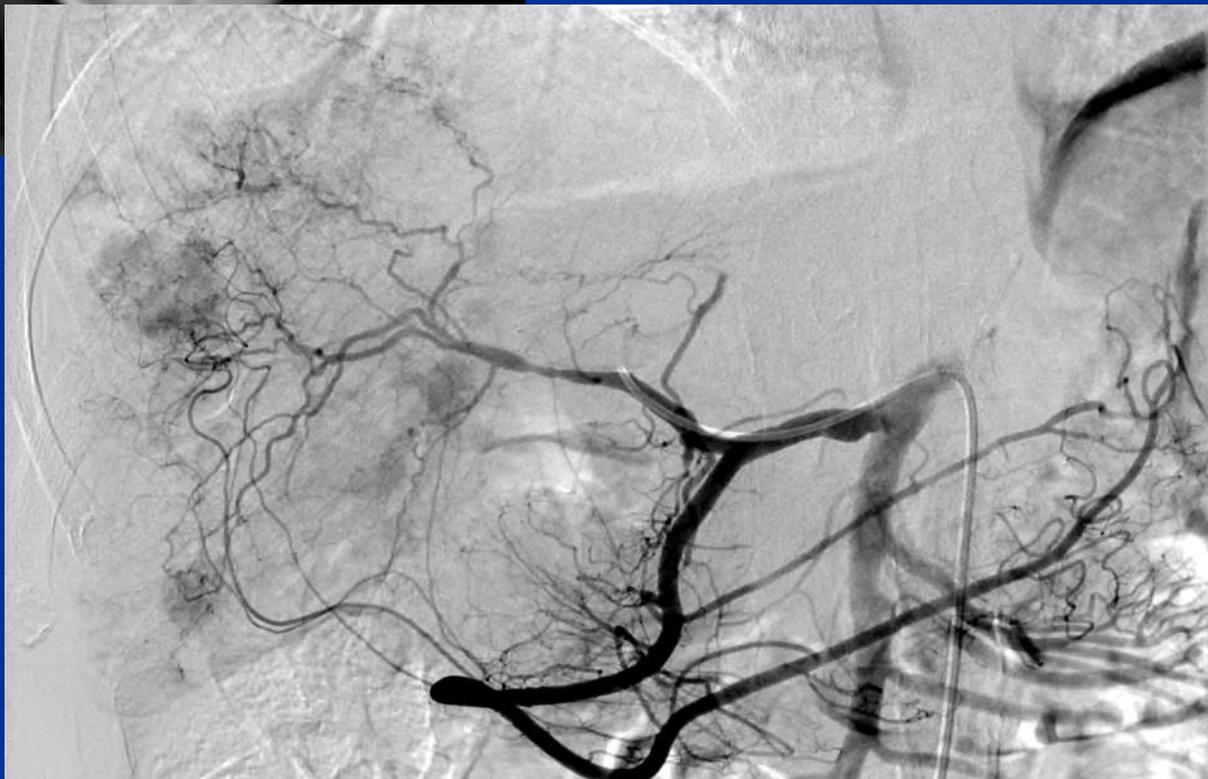
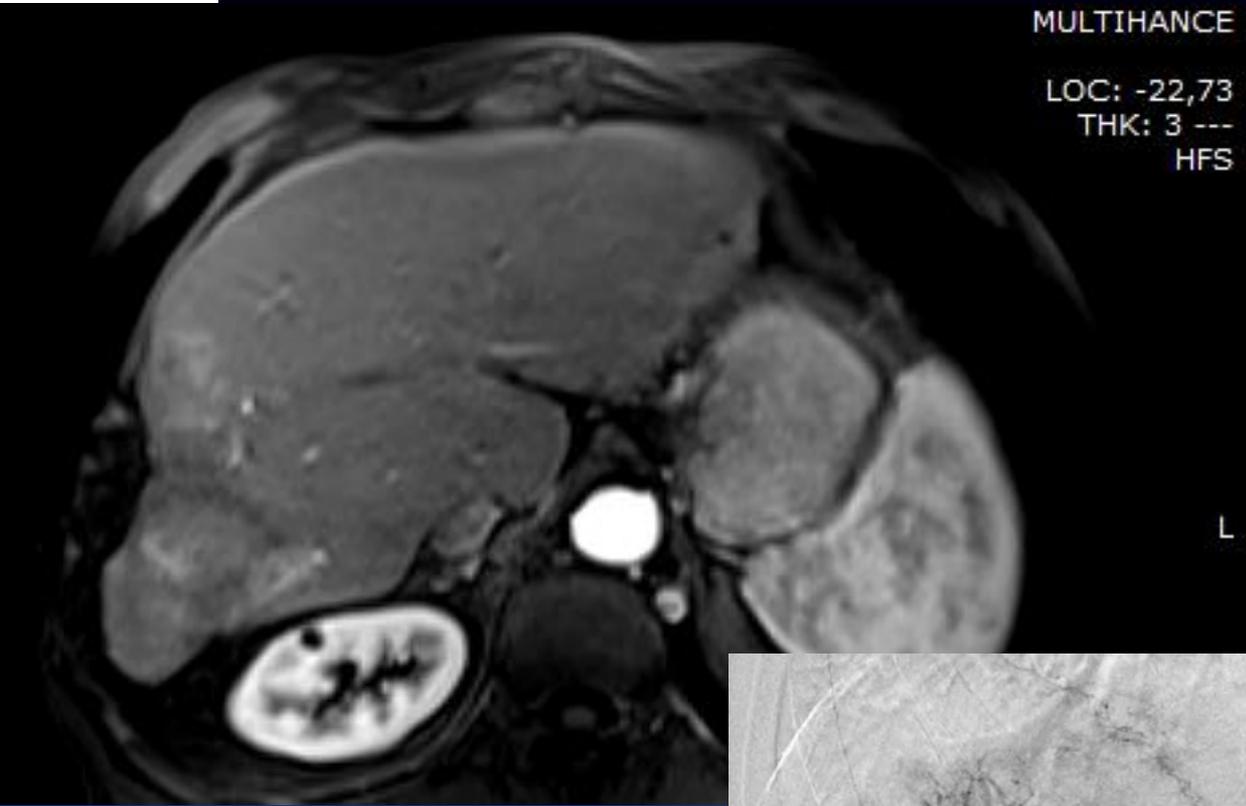
- Tumori molto estesi
- Trombosi portale
- Mancata risposta alla TACE
- Scarsa vascolarizzazione

MULTIHANCE

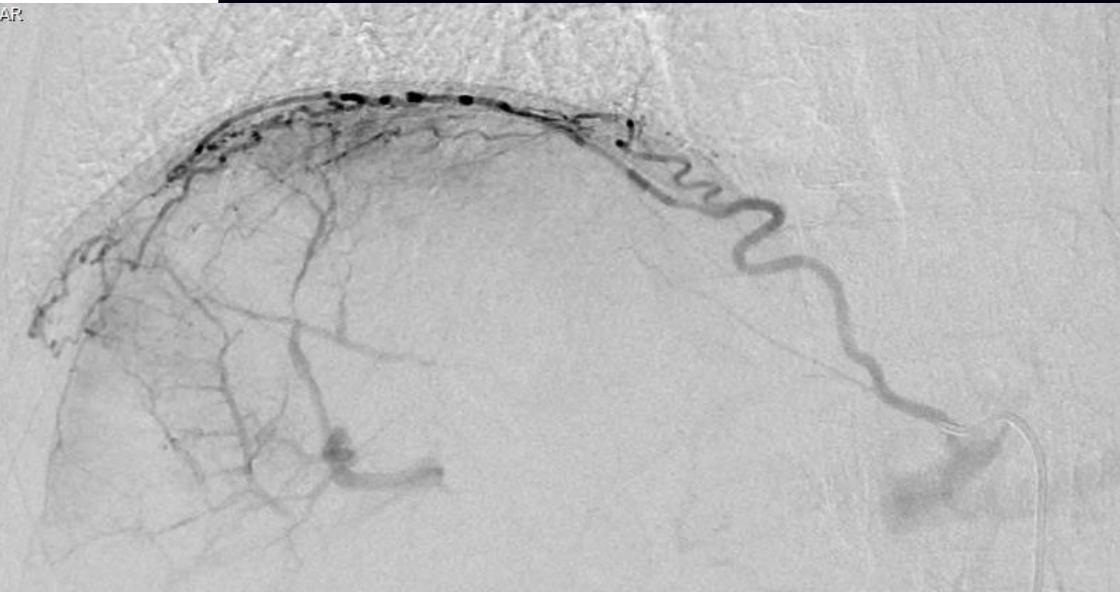
LOC: -22,73

THK: 3 ---

HFS



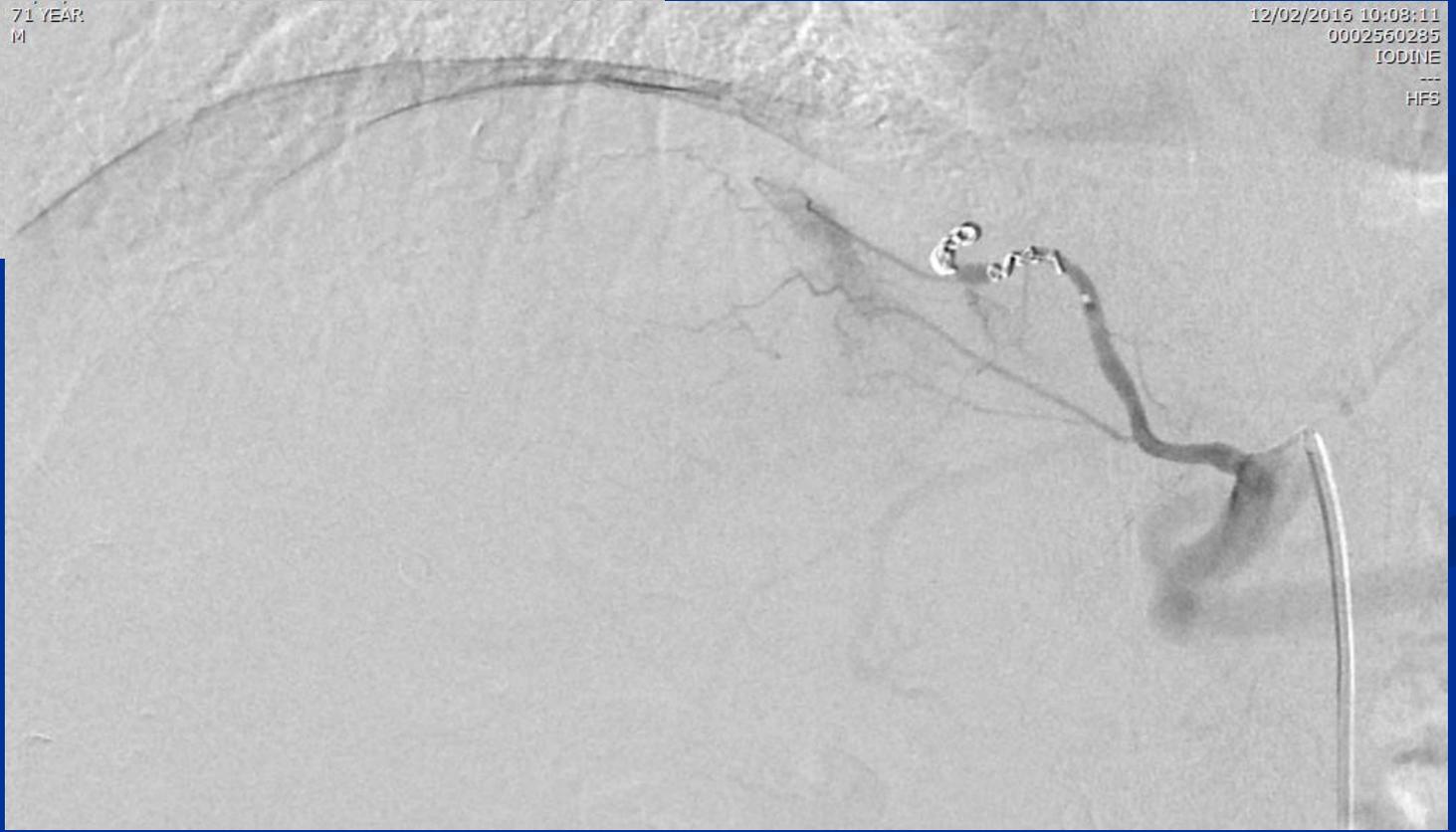
AP:



71 YEAR
M

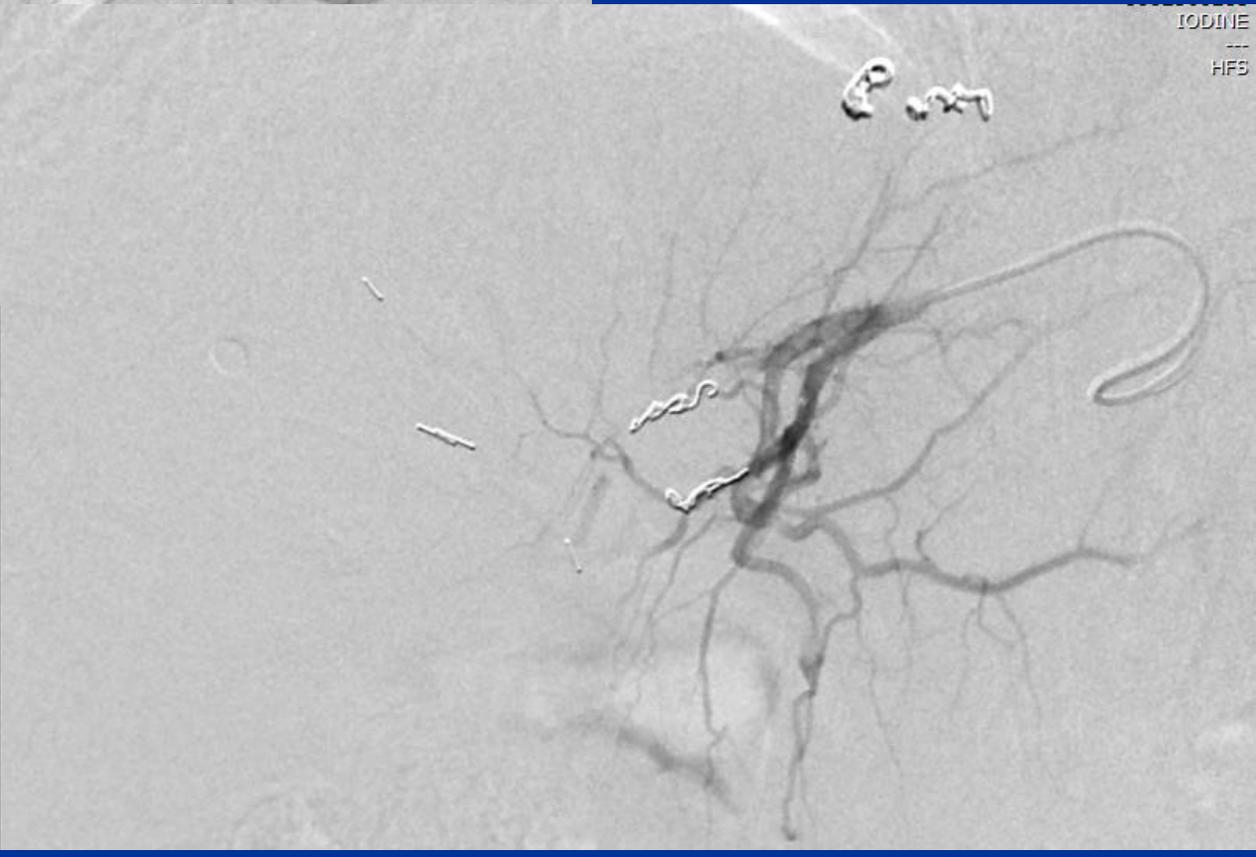
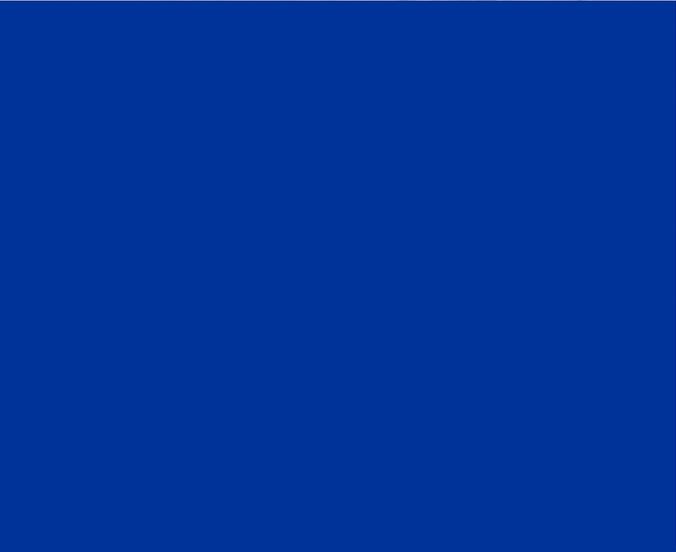
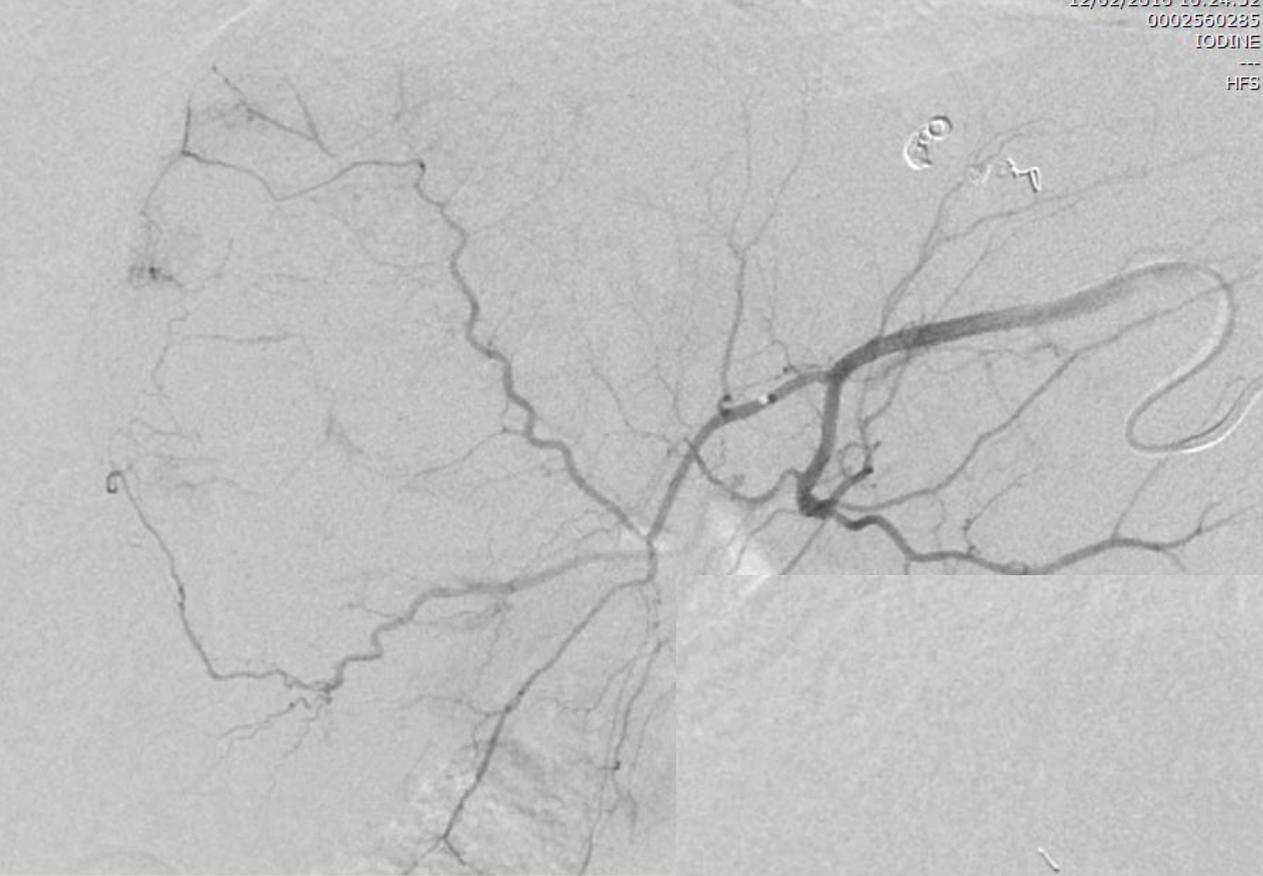
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IODINE

HFS



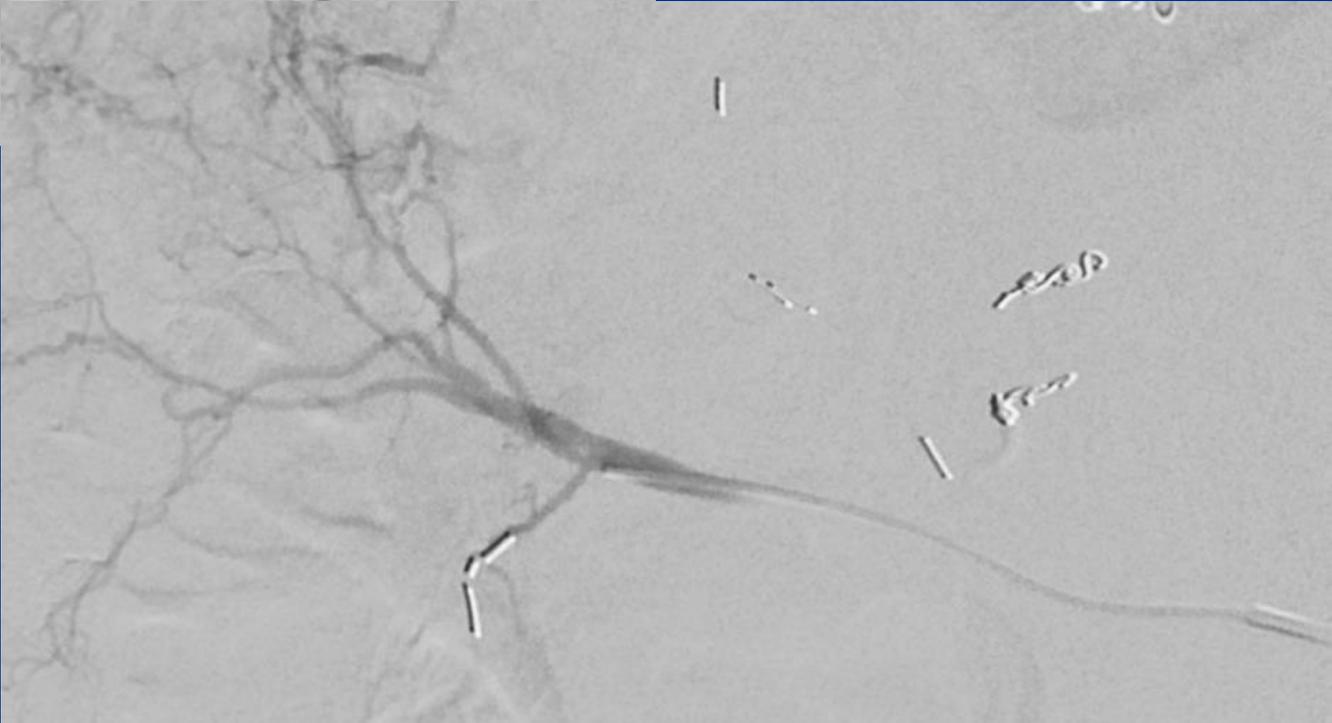
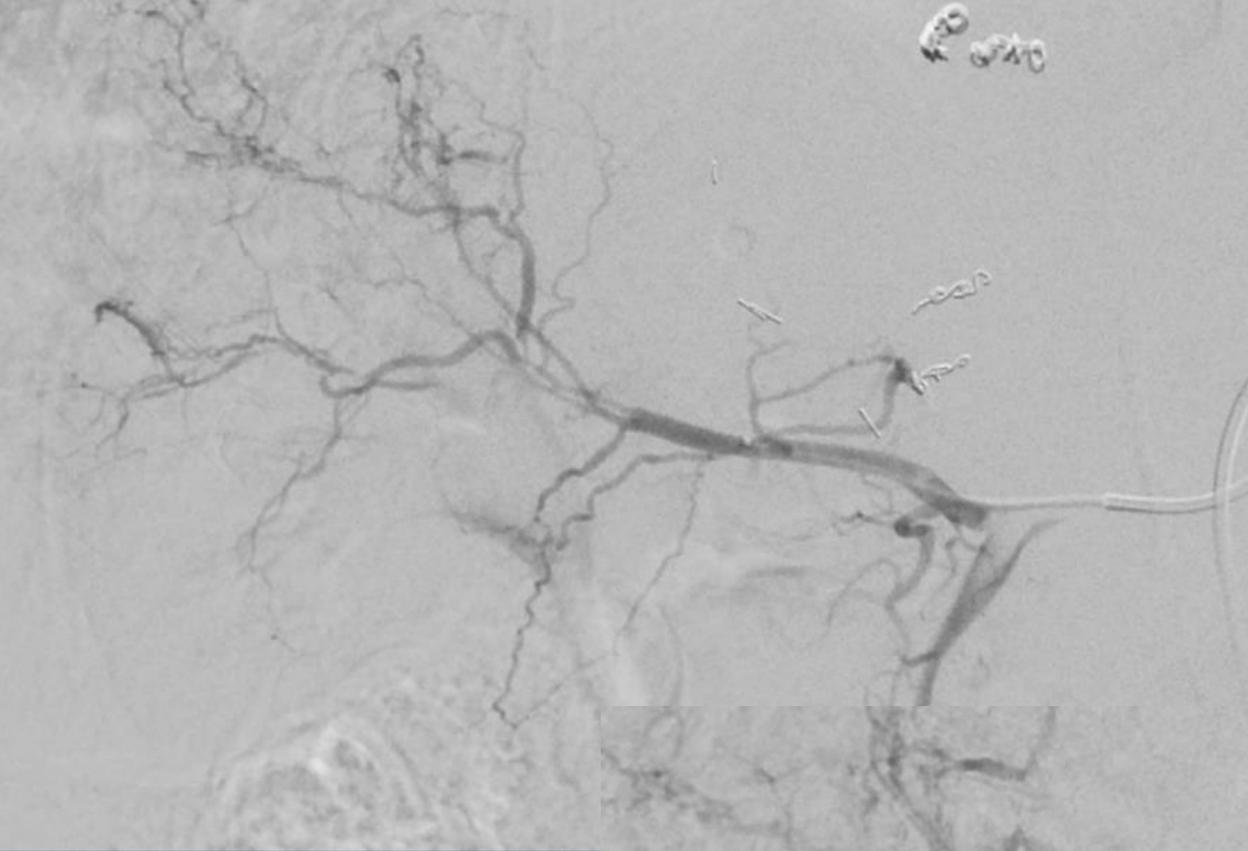
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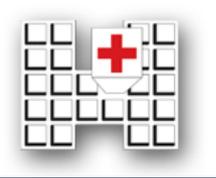
HFS



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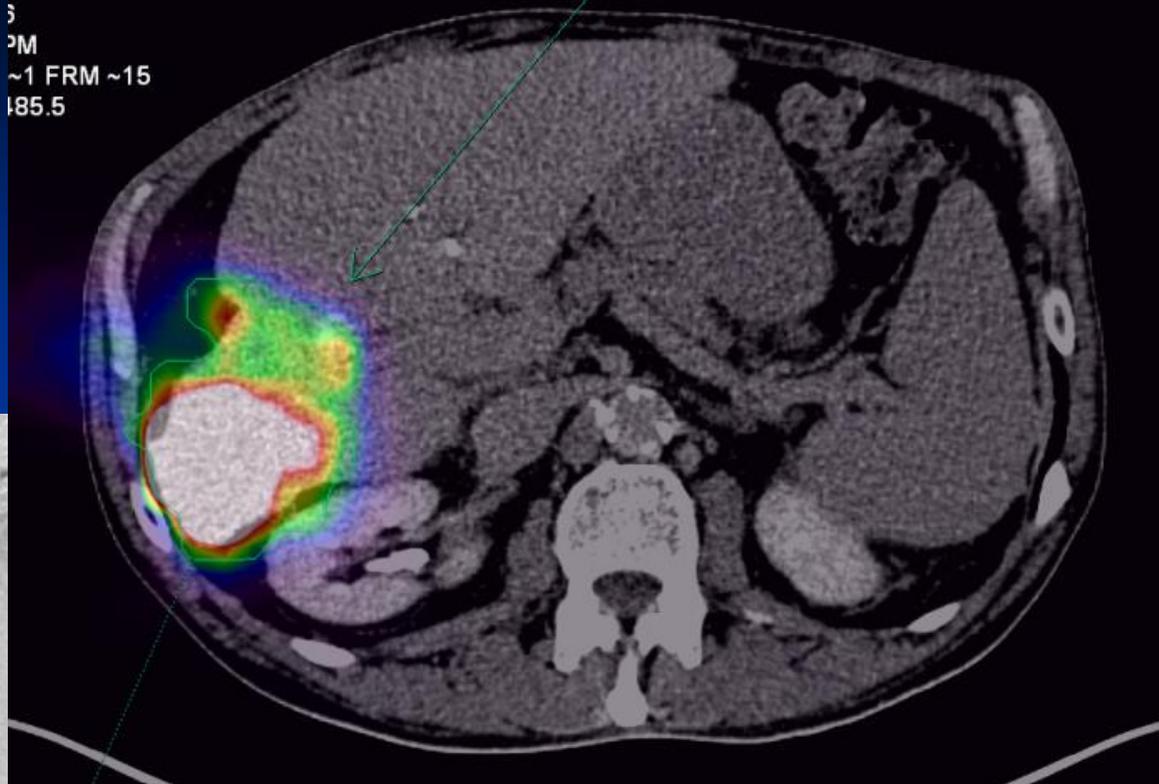
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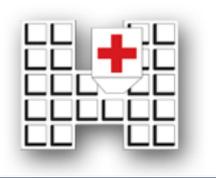




1) | Tomo Addome [Recon - AC]

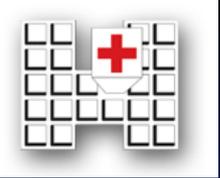
3
PM
~1 FRM ~15
185.5



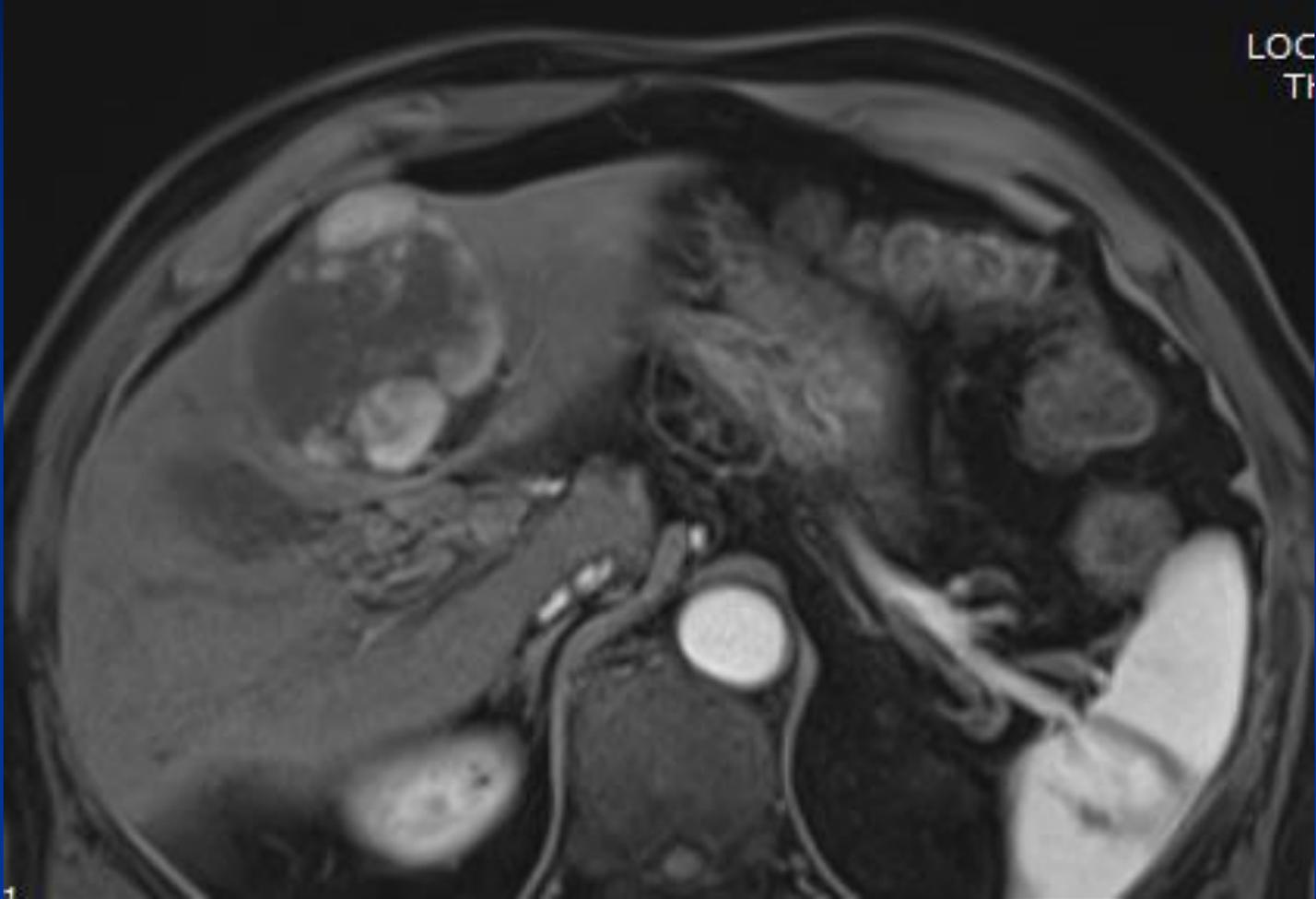


TARE

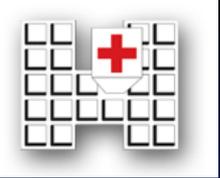
- Sopravvivenza media:
 - Stadio intermedio: 17,2 mesi
 - Stadio avanzato: 12mesi
- Complicanze mortali 3%



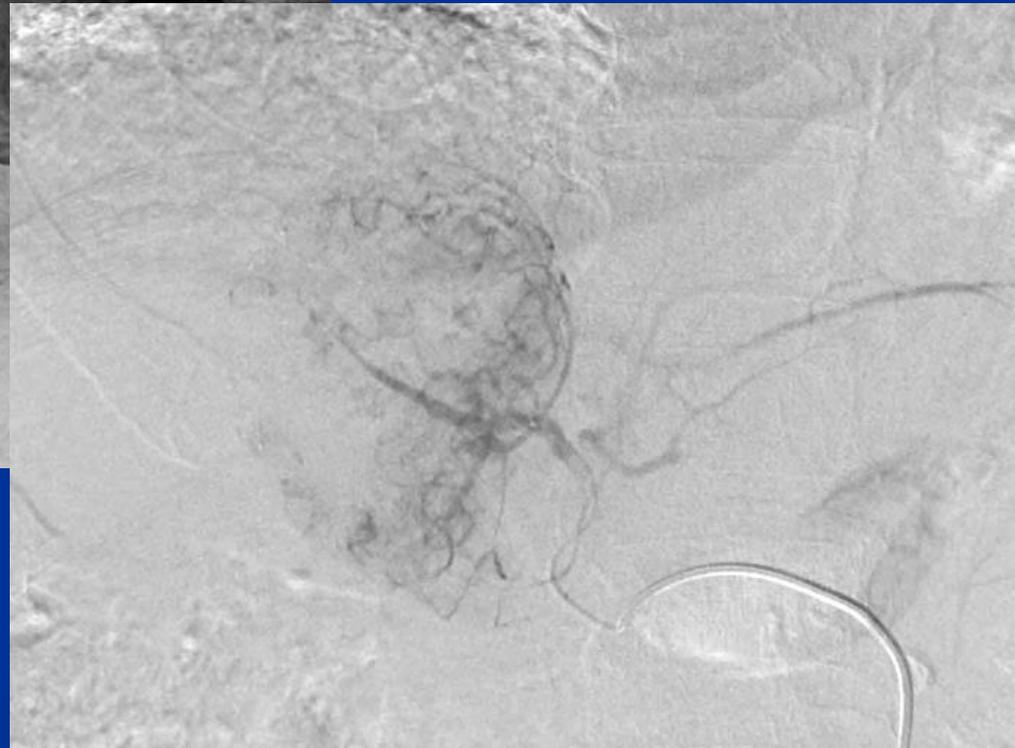
TARE – IMAGING



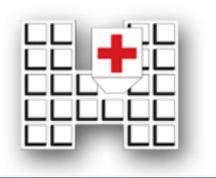
RM pre TARE



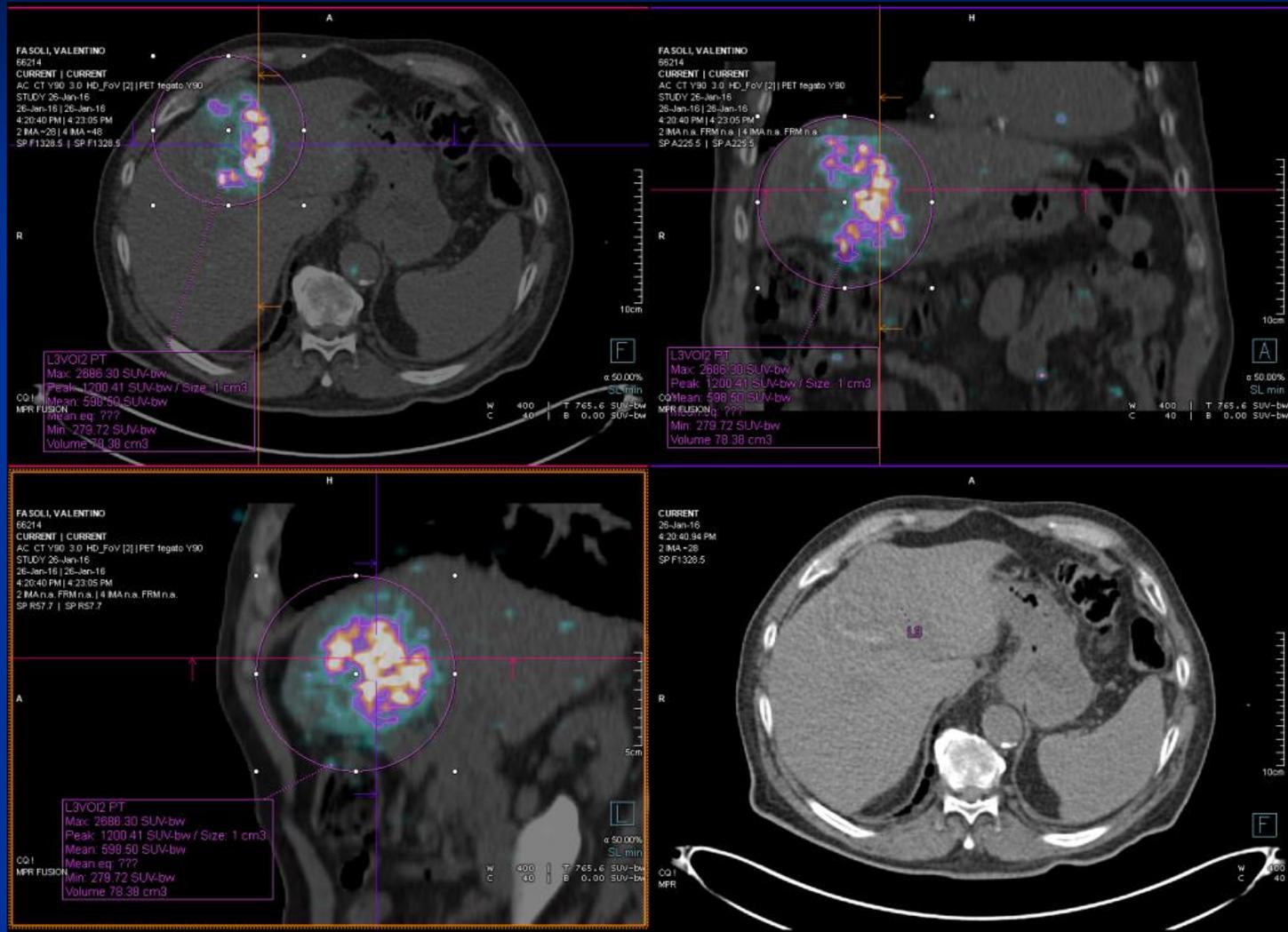
TARE – IMAGING



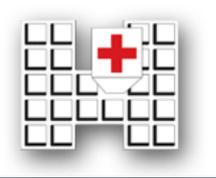
Arteriografia in corso di TARE



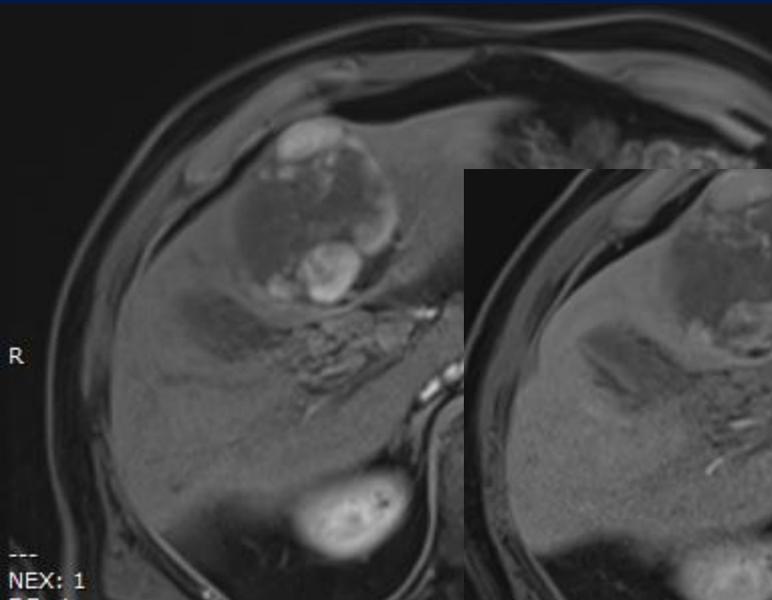
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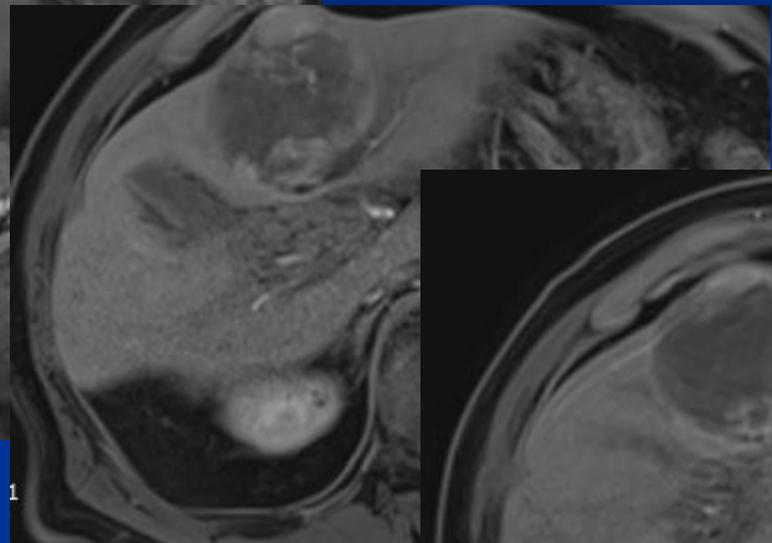
PET post TARE



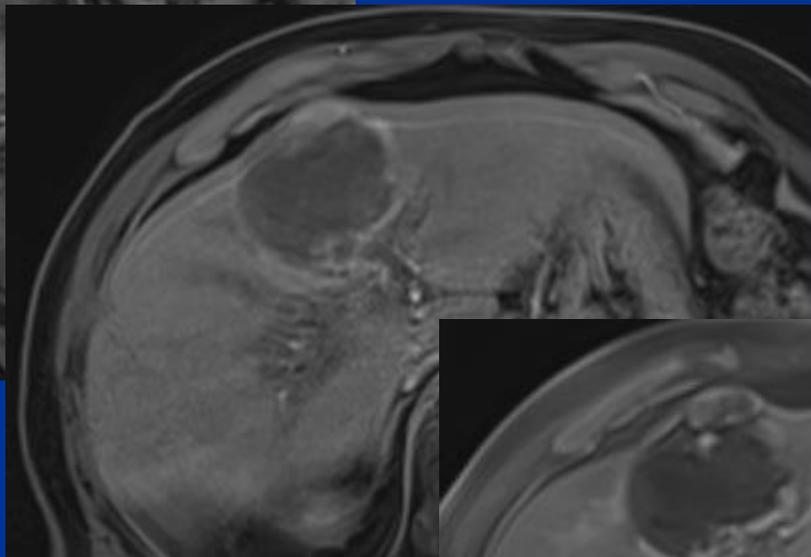
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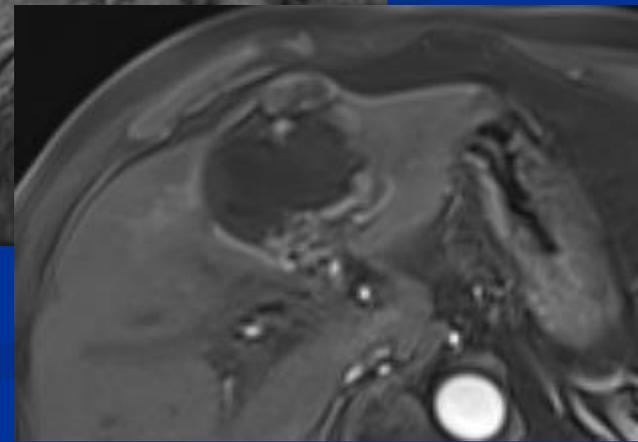
RM pre TARE



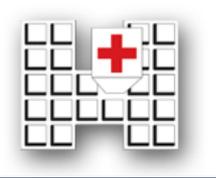
RM 1 mese



RM 4 mesi

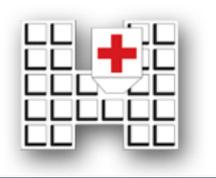


RM 8 mesi

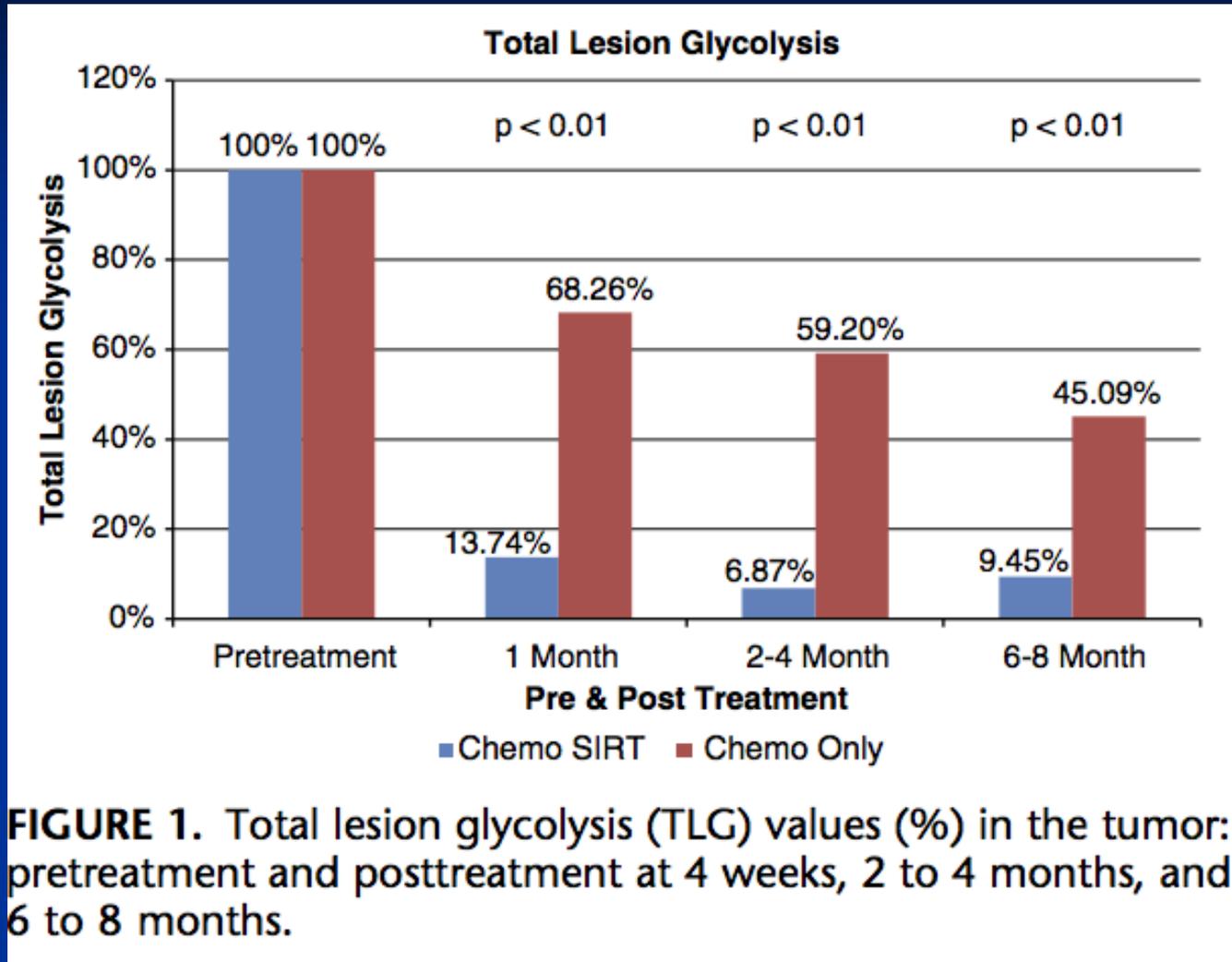


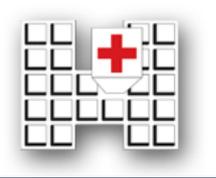
La TARE è proponibile anche per altri tumori epatici vascolarizzati

- COLANGIOCARCINOMI
- METASTASI DA TUMORI ENDOCRINI
- METASTASI DA Ca COLON-RETTO

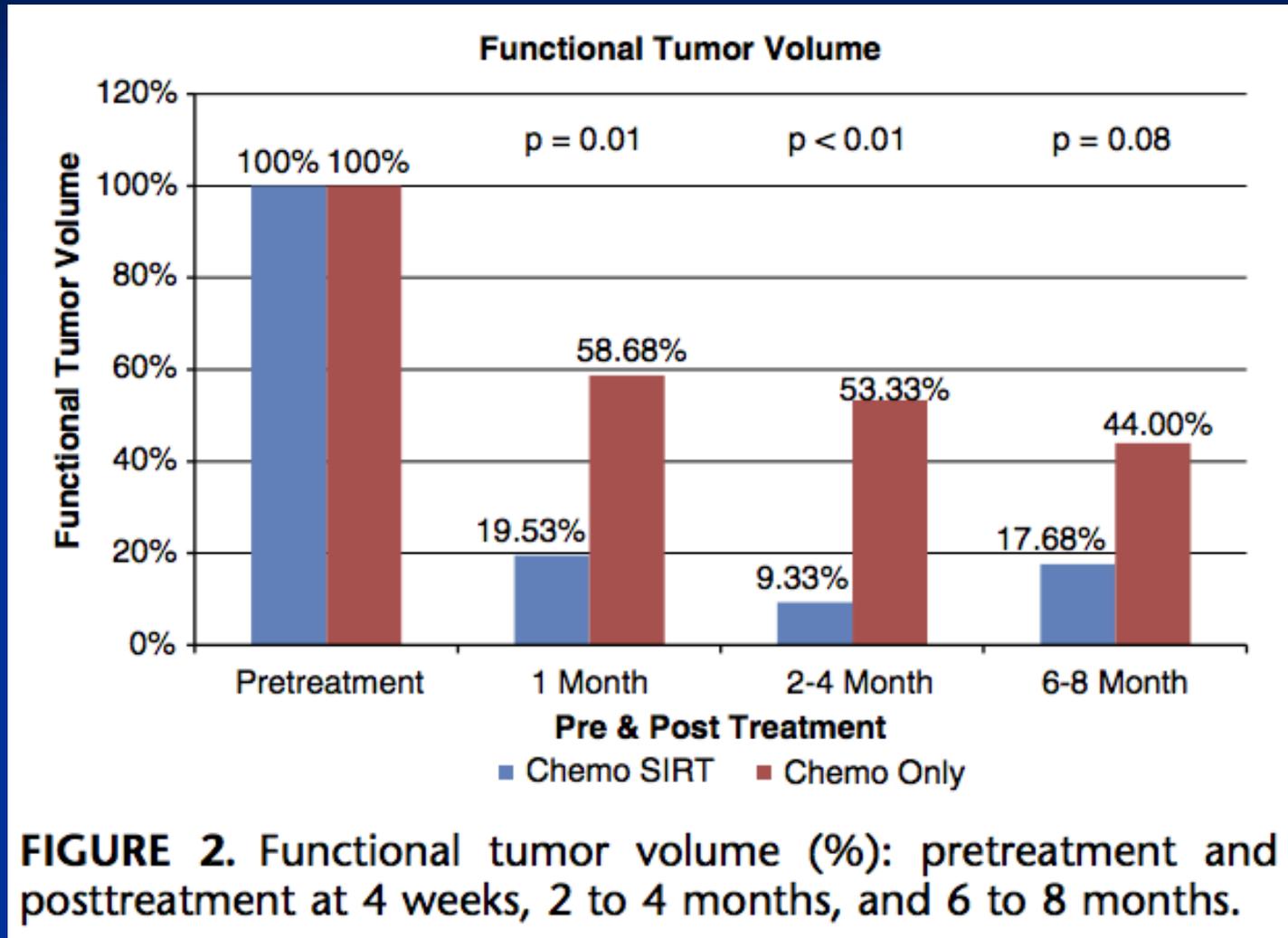


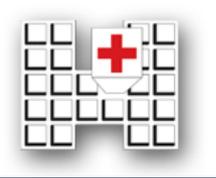
TARE – Metastasi da Colon-Retto



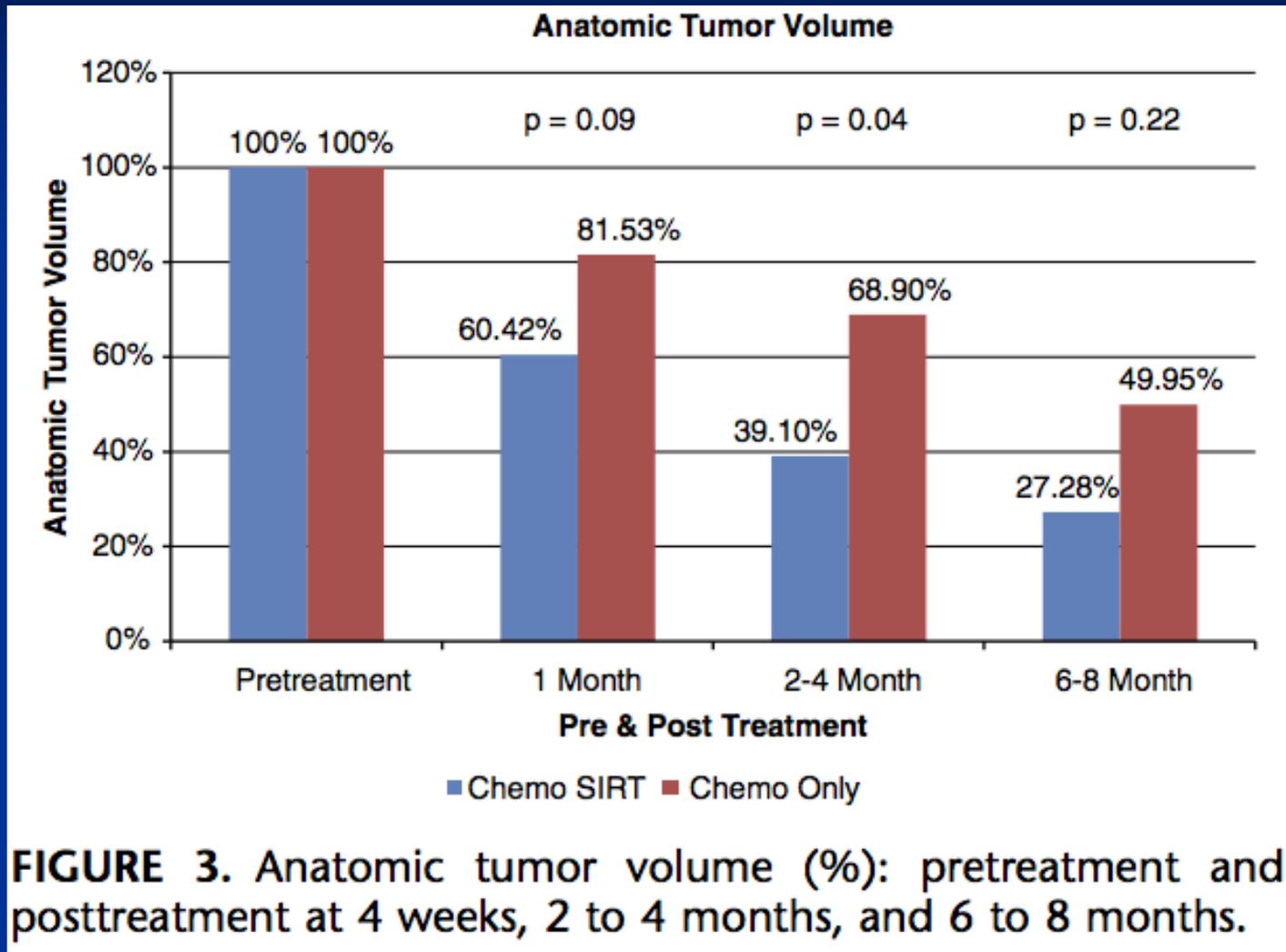


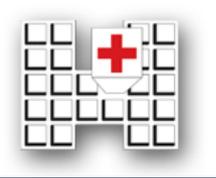
TARE – Metastasi da Colon-Retto





TARE – Metastasi da Colon-Retto





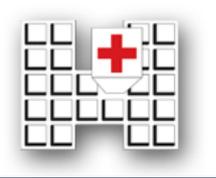
TARE – Metastasi da Colon-Retto

Table 2. Survival Outcomes (median survival in months) of HAI, RE and TACE Stratified into Appropriate Subgroups for Comparison.

	Median Survival (months)		
	HAI	RE	TACE
Overall (95% CI)	16.0 (14.7–16.4)	11.4 (10.2–12.6)	21.0 (20.6–22.4)
Overall—Chemo naïve (95% CI)	21.4 (19.4–23.4)	29.4 (23.4–35.4)	15.2 ^a
Overall—Pretreated (95% CI)	13.2 (12.2–14.2)	10.7 (9.5–12.0)	21.3 (20.6–22.4)
HAT Alone (95% CI)	13.3 (12.3–14.3)	10.5 (9.2–11.8)	21.1 (20.2–22.0)
HAT + Sys (95% CI)	22.5 (20.4–24.5)	19.7 (15.9–23.6)	15.9 (14.8–17.2)
HAT Alone in Chemo naïve (95% CI)	18.8 (13.8–23.9)	-	-
HAT + Sys in Chemo naïve (95% CI)	21.0 (18.8–23.2)	29.4 (23.4–35.4)	15.2 ^a
HAT alone in pretreated (95% CI)	12.6 (11.5–13.7)	10.9 (9.3–12.5)	21.3 (20.4–22.2)
HAT +Sys in Pretreated (95% CI)	13.9 (4.4–23.3)	13.0 (8.0–18.0)	-

^a 1 study available for survival data—no data available

HAT—hepatic artery based therapy; HAI—Hepatic artery infusion. RE- Radioembolization TACE—Transcatheter Arterial Chemoembolization. Sys—systemic chemotherapy



TARE – Metastasi da Colon-Retto

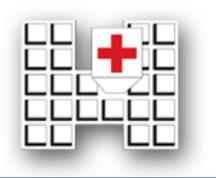
Table 3. Summary of Response Rates (Complete and Partial) of HAI, RE and TACE Stratified into Appropriate Subgroups for Comparison.

	Response Rates		
	HAI	RE	TACE
Overall (95% CI)	48 (42–54)	36 (25–47)	29 (14–43)
Overall—Chemo naïve (95% CI)	52 (39–65)	90 (88–92)	90 ^a
Overall—Pretreated (95% CI)	35 (24–45)	32 (24–39)	28 (7–48)
HAT Alone (95% CI)	47 (38–55)	35 (24–45)	22 (4–41)
HAT + Sys (95% CI)	52 (41–64)	61 (16–100)	46 (22–70)
HAT Alone in Chemo naïve (95% CI)	53 (20–90)	-	-
HAT + Sys in Chemo naïve (95% CI)	51 (38–63)	90 (88–92)	90 ^a
HAT alone in pretreated (95% CI)	37 (20–55)	34.5 (24–45)	24 (0–49)
HAT +Sys in Pretreated (95% CI)	36 (14–58)	30 (10–48)	-

- no data available.

^a 1 study available for response data

HAT—hepatic artery based therapy; HAI—Hepatic artery infusion. RE- Radioembolization TACE—Transcatheter Arterial Chemoembolization. Sys—systemic chemotherapy



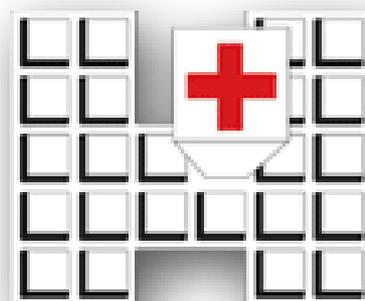
Conclusioni TARE

Rappresenta un'opzione terapeutica nei Pazienti con HCC

- Importante effetto antitumorale
- Effetto downstaging
- Può essere un bridge per il trapianto
- Indicata anche nella trombosi della vena porta
- Risultati comparabili alla TACE
- Bassa percentuale di REILD (danno epatico da radiazione)
- Buona tolleranza per il Paziente

Attualmente supportata solo da studi con evidenza di livello 2

Sono necessari Trial di Fase 3 per definirne il ruolo negli algoritmi terapeutici



Ospedale
Sacro Cuore - Don Calabria
Negrar (Verona)