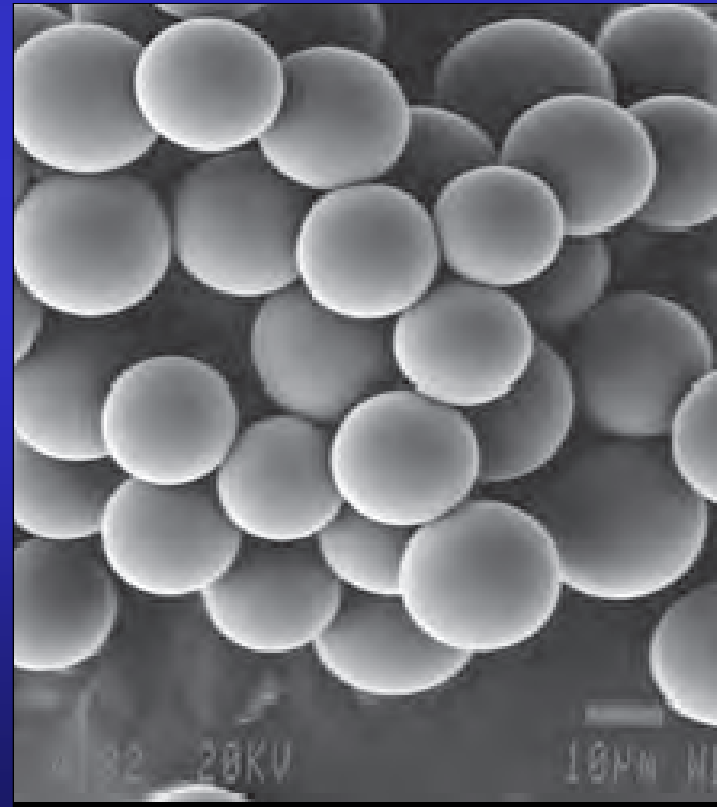
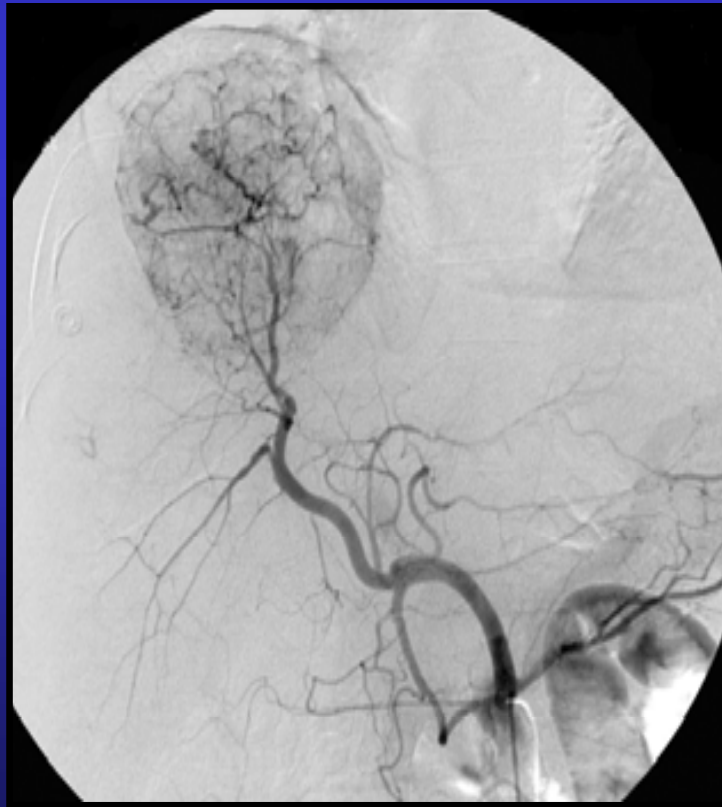


*Radioembolizzazione per via arteriosa
tumori primitivi e secondari del fegato
(SIRT - TARE)*



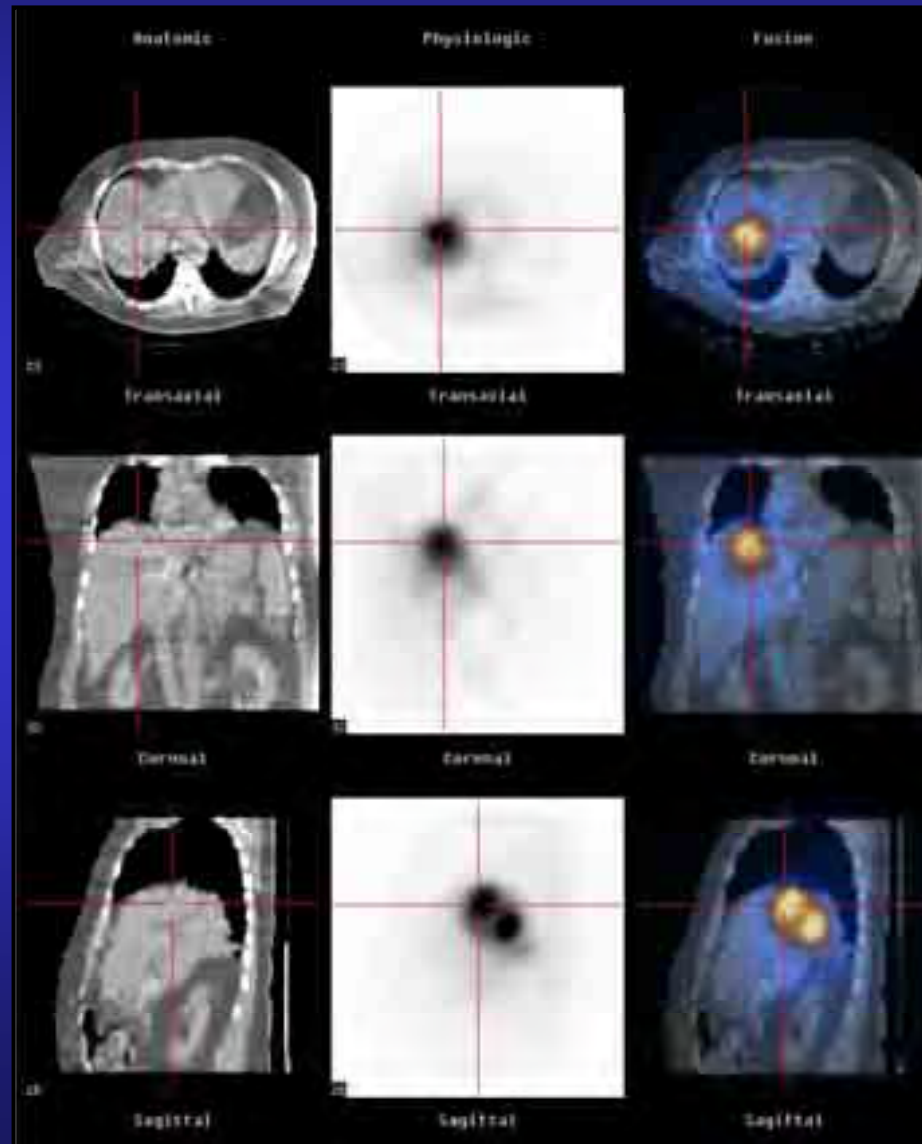
SIRT



Microsfere caricate a ittrio⁹⁰
 β -emittente puro 2,3 MeV
range emissione 2,5 mm emivita 64 ore

- **Thera-Sphere[®]**
 - Diametro 15-30
 - numero 1,2-8 milioni
 - carica singola 2500 Bq
- **Sir-Sphere[®]**
 - Diametro 29-35
 - numero 40-80 milioni
 - carica singola 50 Bq

SIRT bremsstrahlung scan



SIR-Spheres in Neuroendocrine Tumour Liver Metastases

Investigator	n	Tx	ORR	SD	Symp.	PFS	Median Survival
<i>Mixed cohort: $\geq 1^{st}$-line to treatment-refractory disease</i>							
Kennedy	148 [‡]	SIR-Spheres [†]	63.2%	22.7%		nr	70 mo median
King	34	SIR-Spheres [†] + 5FU	50%	14.7%	55%	nr	59% at 35.2 mo
Saxena	48	[SIR-Spheres [†] (+ 5FU)]	54%	23%	nr	nr	35 mo
Cao	58 [‡]		39.2%	27.4%	nr	nr	36 mo
Jahangir	73 [‡]	SIR-Spheres [†]	nr	nr	nr	10.6 mo	55.2 mo
Rhee	42	⁹⁰ Y microspheres		[92–94%]			nr 22 ^γ & 28 [†] mo
Meranze	10	SIR-Spheres [†]	40%	60%		nr	70% at 28 mo
Jakobs	25 [‡]	SIR-Spheres [†]	20.8%	75%	92%	nr	96% at 12 mo
McGrath	26 [‡]	SIR-Spheres [†]	58.3% [*]	33% [*]	2 of 3	nr	69.1% at 17 mo
Kennedy	18 [‡]	SIR-Spheres [†]	89% [*]	nr		nr	89% at 27 mo
Coldwell	84 [‡]	⁹⁰ Y microspheres		67%	33%	80%	nr nr

SIR-Spheres in Neuroendocrine Tumour Liver Metastases

Investigator	n	Tx	ORR	SD	Symp.	TTP	Median Survival
<i>Salvage therapy of treatment-refractory disease</i>							
Kalinowski	9	SIR-Spheres [†]	67%	33%	↑ QoL	11 mo	57% at 36 mo
Murthy	8 [‡]	SIR-Spheres [†]	12.5%	50%		nr	14 mo
Paprottka	42 [‡]	SIR-Spheres [†]	22.5%	75%	94.7%	nr	95% at 16.2 mo

Raccomandazioni del Radioembolization Brachytherapy Oncology Consortium

- Malattia epatica predominante
- Adeguata riserva funzionale epatica (bilirubina < 1.8)
- Qualsiasi Net indipendentemente dalla localizzazione primitiva
- Lobare o bilobare, singolo o multinodulare
- First-line, second-line o refractory disease

TAE and TACE for NET metastases

	Author	N = 661	Radiographic Response or Symptomatic Improvement	5 yr Median Survival
1	Osborne ²²	59 TAE	87% symptoms improved	24 mos mean
2	Moerel ²⁰	40 TAE; 71 TACE	60% TAE; 80% TACE	Not stated
3	Gupta ¹⁹	74 TAE, 49 TACE	35.2% Islet cell; 66.7% carcinoid	13.7% Islet cell; 28.6% carcinoid
4	Kress ²³	26 TACE	75%	48%
5	Rothe ⁴⁰	14 TACE	85.7%	83% 5 yrs, 56% 10 yrs
6	Loewe ²⁸	23 TAE	Not stated	65.4%
7	Dominguez ²³	15 TACE	53%	Not stated
8	Kim ²⁷	30 TACE	37%	15 mos (2–67 + mo)
9	Eriksson ¹⁸	41 TAE	52%	60%
10	Drougas ²⁶	15 TACE	65%	Not stated
11	Ruszniewski ²⁹	24 TACE	33% PR; 11% CR (phase II trial) ^{7,14}	Not stated
12	Therasse ²¹	23 TACE	70% symptomatic improvement	47 mos med survival
13	Clouse ^{13,44}	30 TACE	90% symptomatic improvement	24 mos med survival
14	Brown ²⁵	35 TAE	96% symptomatic improvement	54%
	Totals	272 TAE; 297 TACE	—	—

Treatment paradigm for metastatic neuroendocrine tumours

