

Supplementary material

Supplementary Table 1 Results of trans-arterial embolization (TAE) and chemo-embolization (TACE) studies in patients with liver metastases from neuroendocrine neoplasms (NENs)

Author; Year [Supplementary Ref]	Number of patients (n)	Treatment	Primary location	Symptom relief (%)	Response rate (%) (ORR/SD)	Median PFS (months)	Median OS (months)
Bloomston 2017 [1]	122	TACE (doxorubicin, mitomycin, cisplatin)	SI-NEN	92	82/12	19	33
Carraso 1986 [2]	25	TAE (sponge)	SI-NEN and other	87	94/-	11	16
Chen 2017 [3]	91	TAE or TACE (doxorubicin, mitomycin, cisplatin)	GEP-NEN and other	-	-	15-8.1	-
De Baere 2008 [4]	20	TACE (drug-eluting bead)	SI-NEN	-	80/15	1.5	-
Dhir 2017 [5]	91	TACE (streptozotocin)	GEP-NEN and other	54	23/47	18	44
Diamandidou 1998 [6]	20	TACE (cisplatin)	GEP-NEN	67	78/22	-	-
Dong 2011 [7]	123	TACE (doxorubicin, streptozotocin)	GEP-NEN and other	-	62/24	-	65
Egger 2020 [8]	197	TACE (doxorubicin, mitomycin, cisplatin)	GEP-NEN and other	-	42/92	19.9	50.1
Gaur 2011 [9]	18	TACE (drug-eluting bead, doxorubicin)	SI-NEN	-	58/42	14	-
Granberg 2007 [10]	15	TAE (embospheres)	SI-NEN and other	42	35/56	6	-
Ho 2007 [11]	46	TAE (polyvinyl alcohol or sponge) or TACE (doxorubicin, mitomycin, cisplatin)	GEP-NEN	78-75	45-45/32-45	23-16	42-44
Hur 2013 [12]	42	TACE (doxorubicin)	SI-NEN	-	58/-	16	39
Kamat 2008 [13]	38	TAE (polyvinyl alcohol or sponge) or TACE (not available)	GEP-NEN and other	65	44/-	9	19
Kim 1999 [14]	30	TACE (cisplatin, doxorubicin, 5FU, streptozotocin)	GEP-NEN	-	25 to 50/-	24	15
Kress 2003 [15]	26	TACE (doxorubicin)	GEP-NEN and other	-	8/53	-	-
Liu 2019 [16]	17	TAE (plus octreotide LAR)	GEP-NEN	-	76/24	-	-
Loewe 2003 [17]	23	TAE (cyanoacrylate)	SI-NEN	56	73/23	-	69
Marrache 2007 [18]	67	TACE (doxorubicin, streptozotocin)	GEP-NEN	91	73/36	15	-
Pitt 2008 [19]	100	TAE (sponge, embospheres, polyvinyl alcohol) or TACE (cisplatin, adriamycin)	GEP-NEN	76	-	-	26
Strosberg 2006 [20]	84	TAE (polyvinyl alcohol, embospheres)	GEP-NEN and other	80	48/52	-	36
Therasse 1993 [21]	23	TACE (doxorubicin)	SI-NEN	100	35/24	29	24
Varker 2007 [22]	27	TACE (doxorubicin, mitomycin, cisplatin)	GEP-NEN and other	77	61/-	5	28
Yao 2001 [23]	20	TACE doxorubicin, mitomycin, cisplatin)	GEP-NEN	50	25/10	32	40

5FU, 5-fluorouracil; GEP-NEN, gastroenteropancreatic neuroendocrine neoplasm; ORR, objective response rate (complete and partial response); PFS, progression-free survival; OS, overall survival; SI-NEN, small intestinal neuroendocrine neoplasm; TACE, transarterial chemoembolization; TAE, transarterial embolization; LAR, long-acting repeatable

Supplementary Table 2 Results of peptide receptor radionuclide therapy (PRRT) studies in patients with liver metastases from neuroendocrine neoplasms (NENs)

Author; year [Supplementary Ref]	Number of patients (n)	Treatment type and dose (GBq)	Study design	Primary tumor location	Response rate (%) (ORR/SD)	Median PFS (months)	Median OS (months)
Bodei 2011 [24]	51	¹⁷⁷ Lu-DOTATATE (3.7-7.4)	Phase 1-2	GEP-NEN and other	32.6/-	36	Not reached
Bodei 2016 [25]	78	¹⁷⁷ Lu-octreotate or ⁹⁰ Y-octreotide (3.7-6.5)	Retrospective	GEP-NEN and other	18.5/54	Not reached	Not reached
Bushnell 2010 [26]	90	⁹⁰ Y-edotreotide (4.4)	Phase 2	SI-NEN	4.4/70	16.3	26.9
Cwikia 2010 [27]	60	DOTATOC Y-90	Phase 2	GEP-NEN	23/77	17	22
Del Prete 2017 [28]	36	¹⁷⁷ Lu-octreotate (5.9-15.9)	Retrospective	GEP-NEN and other	12/88	17.4	18.9
Del Prete 2019 [29]	39	¹⁷⁷ Lu-octreotate (7.4)	Phase 2	GEP-NEN and other	23/70	15.9	Not reached
Delpassand 2014 [30]	37	¹⁷⁷ Lu-DOTATATE (7.4)	Phase 2	GEP-NEN	28/44	Not reached	-
Hamidiabar 2017 [31]	132	¹⁷⁷ Lu-Octreotate (7.4)	Retrospective	GEP-NEN and other	9/50	30	Not reached
Kwekkeboom 2008 [32]	310	[(¹⁷⁷ Lu-DOTA(0),Tyr(3))]octreotate (3.7-7.4)	Retrospective	GEP-NEN	46/-	40	46
Paganelli 2014 [33]	43	¹⁷⁷ Lu-Dotatate (3.7-5.5)	Phase 2	GI-NEN	7/77	36	Not reached
Pfeifer 2011 [34]	69	⁹⁰ Y-DOTATOC or ¹⁷⁷ Lu-DOTATOC	Retrospective	GEP-NEN	23.6/61.8	29	Not reached
Sabet 2015 [35]	61	¹⁷⁷ Lu-octreotate (7.9)	Retrospective	SI-NEN	44/47.5	33	61
Sansovini 2013 [36]	52	¹⁷⁷ Lu-DOTATATE (3.7-5.5)	Prospective	Pancreatic NEN	39/46	29	Not reached
Soydal 2016 [37]	29	¹⁷⁷ Lu-DOTATATE (7.4)	Retrospective	GEP-NEN and other	28/62	-	-
Sward 2010 [38]	29	¹⁷⁷ Lu-DOTA(0)-Tyr(3)]-octreotate (8)	Retrospective	GEP-NEN	38/50	-	-
Valkema 2006 [39]	58	⁹⁰ Y-DOTA ⁰ , Tyr ³] Octreotide	Phase 1	GEP-NEN	22/45	14.3	36.7

GI-NEN, gastrointestinal neuroendocrine neoplasms; GEP-NEN, gastroenteropancreatic neuroendocrine neoplasms; ORR, objective response rate (complete and partial response); PFS, progression-free survival; OS, overall survival; SI-NEN, small intestinal neuroendocrine neoplasm

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