

**Table 7** Long-term outcomes of ablation vs. SBRT or surgery  
 Ordered by degree of confidence that results reflect the effect of the treatment, stage

1 <sup>st</sup> author year (reference)	Study characteristics						Treatment details	Adjustment for confounding								Confid RE Tmt effect	f/u (mo) <sup>b</sup>	Adjusted % 5-yr OS			Adjusted % 5-yr LCSS			
	Source	Yrs	n	Stage <sup>a</sup>	Mean age <sup>b</sup>	% Charlson score ≥2 <sup>b</sup>		Demogr F	CoMorbid	Hi stage	Time span	Q settings	Q Treatmt	Fav tumor	Statistical methods			# adj for/ subsets	Abl	SBRT	HR	Abl	SBRT	HR
<b>Ablation vs. SBRT</b>																								
Lam <sup>c</sup> 2018 (140)	NCDB	04-14	4,789	cIA	74	14	SBRT	RFA						MV, PM	11/1	M	39/42	27	<b>32</b>	1.09	-	-	-	
Ager 2019 (141)	NCDB	04-14	12,456	cIA	-	-	SBRT	Abl						MV, PA	11	M	<b>26/28</b>	-	-	<b>1.18</b>	-	-	-	
Ager 2019 (141)	NCDB	04-14	15,792	cl-IIA	75	17	SBRT	Abl						MV, PA	11	M	<b>26/28</b>	<b>26</b>	<b>31</b>	<b>1.41</b>	-	-	-	
Baine 2019 (139)	NCDB	04-14	1,974 <sup>d</sup>	cl-IIA	75	17	SBRT	Abl						MV, PM	16/4	M	<b>27</b>	<b>26</b>	<b>34</b>	<b>1.33</b>	-	-	-	
Li 2021 (142)	SEER	04-15	6,170	cIA	74/74	-	SBRT	RFA						MV, PA	14/8	M	<b>20</b>	29	27	.98	52	47	1.01	
Liang 2020 (143)	SEER	04-15	6,395	cl	~75	-	SBRT	Abl						MV	9	L	-	29 <sup>e</sup>	27 <sup>e</sup>	.93	-	-	-	
Uhlig 2021 (144)	NCDB	04-16	4,835	cl-IIA	75/75	18/20	SBRT	Abl						PM	14	L	46	26	<b>29</b>	1.07	-	-	-	
Uhlig 2018 (145)	NCDB	04-13	2,140	cl-IIA	-	20	SBRT	Abl						PM	10	L	52	25	26	1	-	-	-	
<b>Ablation vs. surgery</b>																	Abl	Surg	HR	Abl	Surg	HR		
Wu 2020 (59)	NCDB	04-14	1,995 <sup>d</sup>	clA1,2	70/74	16/17	W <sup>f</sup>	Abl						PM	15/3	M	32	<b>31</b>	<b>54</b>	<b>1.96</b>	-	-	-	
Wu 2020 (59)	NCDB	04-14	3,046 <sup>d</sup>	cl	-	-	W <sup>f</sup>	Abl						PM	15/3	M	32	<b>27</b>	<b>49</b>	<b>1.91</b>	-	-	-	
Kwan <sup>g</sup> 2014 (146)	SEER	07-09	1,897	cl-IIA	~77	-	SL	Abl						MV, PM	10	L	<b>17</b>	[62] <sup>h</sup>	<b>[66]</b> <sup>h</sup>	1.15	[66] <sup>h</sup>	<b>[76]</b> <sup>h</sup>	<b>1.82</b>	
Hu <sup>i</sup> 2021 (147)	China x1	14-18	223	cIA	79/82	-	W	MWA						MV, PM	11	VL	48/45	<b>55</b>	<b>72</b>	1.43	-	-	-	
Zeng 2020 (148)	SEER	04-14	4,372	cl	-	-	W	Abl						MV, PM	11/1	VL	-	<b>30</b>	<b>45</b>	<b>1.27</b>	<b>46</b>	<b>64</b>	<b>1.4</b>	
Yao 2018 (149)	China x1	00-10	162 <sup>d</sup>	cl-IIA	56/57	-	Lobe	MWA						MV, PM	9/1	VL	-	50	46	1	-	-	-	

Inclusion criteria: studies with multivariable or propensity adjustment of ablation vs. SBRT or surgery, 2000–21, with >50 pts per arm. The HR reference is SBRT or surgery (HR >1 indicates worse outcome with ablation). Bold highlights better result, e.g., higher OS (>2-point difference); Light green shading highlights statistically significant differences (lighter shade = univariable; darker = multivariable); Red font highlights potential weakness, e.g., follow-up <24 months in at least one arm.

<sup>a</sup>, 8<sup>th</sup> edition stage classification; <sup>b</sup>, for SBRT or surgery/ablation cohort; <sup>c</sup>, only high volume centers included (defined as top 5% by patient volume specific for the treatment—treated >12 with ablation or >76 patients with SBRT during study years); <sup>d</sup>, propensity matched pairs; <sup>e</sup>, unadjusted; <sup>f</sup> >80% wedge; <sup>g</sup>, all patients age ≥65 (59% ≥75); <sup>h</sup>, 2-year survival (in parentheses because not comparable to 5-year OS); <sup>i</sup>, tumors ≤1 cm from pericardium.

Abl, ablation (method not specified); f/u (mo), follow-up duration (months); HR, hazard ratio; LCSS, lung cancer specific survival; Lobe, lobectomy; MWA, microwave ablation; NCDB, National Cancer Database (US); OS, overall survival; RFA, radiofrequency ablation; Surg, surgical resection; SEER, Surveillance, Epidemiology and End Results database (US); Seg, segmentectomy; SL, sublobar resection; W, wedge; Yrs, years of accrual.