

Supplemental Table 1 - Clinical Predictors of a Rib Fracture after SBRT

Continuous Variables	Mean (Range)	Mean - Rib Fracture	Mean - No Rib Fracture	Student's t-test p-value
Age	72.94 (52 to 91)	74.48	72.64	0.286
Weight (lb)	176.13 (79 to 280)	164.68	178.34	0.103
Height (in)	66.2 (50 to 76)	65.28	66.38	0.138
BMI	28.1 (16 to 48.2)	27.15	28.28	0.362
Smoking Pack-Years	50.02 (0 to 150)	47.23	50.56	0.541
Tumor Size (cm)	1.9 (0.4 to 6.2)	2.27	1.83	0.065
Distance to Chest Wall (cm)	2.1 (0.2 to 5.9)	1.34	2.25	0
PTV-Rib Overlap (cc)	0.59 (0 to 7.3)	1.2	0.47	0
PTV-Chest Wall Overlap (cc)	2.5 (0 to 23.5)	5.25	1.97	0
Duration of SBRT (days)	8.9 (3 to 30)	8.48	8.98	0.269
Time from Treatment to Death/Censored	28.61 (6.7 to 122)	37.32	26.93	0.023
Vertebral Body Hounsfield Units	92.18 (20.2 to 236.5)	85.7	93.42	0.194
Predicted Bone Density DEXA Score	-1.83 (-3.85 to 1.24)	-2.04	-1.78	0.07

Categorical Variables	Group	Group Percent	Group Percent - Rib Fracture	Group Percent - No Rib Fracture	Chi-square p-value
Gender	Female	44.3%	58.1%	41.6%	0.136
	Male	55.7%	41.9%	58.4%	
Race	Non-White	4.2%	6.5%	3.7%	0.838
	White	95.8%	93.5%	96.3%	
ECOG	ECOG 0	23.4%	16.1%	24.8%	0.414
	ECOG 1-2	76.6%	83.9%	75.2%	
Prior Rib Fracture	No Prior Rib Fracture	72.9%	71.0%	73.3%	0.963
	Prior Rib Fracture	27.1%	29.0%	26.7%	
Prior Vertebral Body Compression Fracture	No Prior Vertebral Compression Fracture	80.2%	67.7%	82.6%	0.098
	Prior Vertebral Compression Fracture	19.8%	32.3%	17.4%	
Other Prior Fractures	No Other Prior Fractures	81.8%	83.9%	81.4%	0.939
	Other Prior Fractures	18.2%	16.1%	18.6%	
Predicted Osteopenia/Osteoporosis	Normal Bone Density	16.1%	6.5%	18.0%	0.182
	Osteopenia/Osteoporosis	83.9%	93.5%	82.0%	
	Adenocarcinoma	40.6%	45.2%	39.8%	
Histology	Squamous Cell Carcinoma	25.0%	22.6%	25.5%	0.931
	Large Cell	1.0%	0.0%	1.2%	
	Adenosquamous	0.5%	0.0%	0.6%	
Radiation Fractions	NSCLC NOS	32.8%	32.3%	32.9%	0.939
	4 Fractions	18.2%	16.1%	18.6%	
	5 Fractions	81.8%	83.9%	81.4%	
Dose Group	50 Gy	72.9%	71.0%	73.3%	0.755
	Below 50 Gy	17.7%	16.1%	18.0%	
	Over 50 Gy	9.4%	12.9%	8.7%	
Dose per Fraction	12+ Gy	24.5%	29.0%	23.6%	0.678
	Below 12 Gy	75.5%	71.0%	76.4%	
Treatment Schedule	Consecutive Treatments	7.8%	6.5%	8.1%	1
	Treatment Every Other Day	92.2%	93.5%	91.9%	