

Supplementary material

Commonly used dose volume criteria for PTV and selected OARs for SBRT with a prescription of 3300 cGy in 5 fractions for pancreatic cancer.

Structure	Constraint Matrix
PTV	V (3300 cGy) \geq 95%, Ideal
	V (3300 cGy) \geq 80%, Acceptable
Spinal Cord	V (\geq 800 cGy) \leq 1 cc. Acceptable
	V (\geq 760 cGy) \leq 1 cc. Ideal
Combined Kidneys	V (\geq 1200 cGy) \leq 50%. Acceptable
	V (\geq 1200 cGy) \leq 45%. Ideal
Liver	V (\geq 800 cGy) \leq 1 cc. Acceptable
	V (\geq 760 cGy) \leq 1 cc. Ideal
	D _{mean} \leq 2800 cGy. Acceptable
	D _{mean} \leq 2660 cGy. Ideal
Colon	V (\geq 1200 cGy) \leq 50%. Acceptable
	V (\geq 1200 cGy) \leq 45%. Ideal
	V (\geq 3300 cGy) \leq 1 cc. Acceptable
	V (\geq 3135 cGy) \leq 1 cc. Ideal
	V (\geq 2000 cGy) \leq 3 cc. Acceptable
	V (\geq 1900 cGy) \leq 3 cc. Ideal
Small Bowel	V (\geq 2000 cGy) \leq 3 cc. Acceptable
	V (\geq 1900 cGy) \leq 3 cc. Ideal
	V (\geq 3300 cGy) \leq 1 cc. Acceptable
	V (\geq 3135 cGy) \leq 1 cc. Ideal
Stomach	V (\geq 2000 cGy) \leq 3 cc. Acceptable
	V (\geq 1900 cGy) \leq 3 cc. Ideal
	V (\geq 3300 cGy) \leq 1 cc. Acceptable
	V (\geq 3135 cGy) \leq 1 cc. Ideal
Duodenum	V (\geq 2000 cGy) \leq 3 cc. Acceptable
	V (\geq 1900 cGy) \leq 3 cc. Ideal
	V (\geq 3300 cGy) \leq 1 cc. Acceptable

Skin	$V (\geq 3135 \text{ cGy}) \leq 1 \text{ cc. Ideal}$
	$V (\geq 760 \text{ cGy}) \leq 1 \text{ cc. Ideal}$
	$D_{\max} \leq 3200 \text{ cGy. Acceptable}$
	$D_{\max} \leq 3040 \text{ cGy. Ideal}$

F-test to verify that samples come from distribution of unequal variances, followed by a two tailed T-test with unequal variance p-values calculated in excel as a secondary check of the significance of t-test p-value levels

F-Test Two-Sample for Variances			F-Test Two-Sample for Variances			F-Test Two-Sample for Variances		
<i>Feature 1</i>	<i>ATS</i>	<i>ATP</i>	<i>Feature 2</i>	<i>ATS</i>	<i>ATP</i>	<i>Feature 3</i>	<i>ATS</i>	<i>ATP</i>
Mean	-0.8777809	0.132861877	Mean	-0.162333282	-1.12054	Mean	0.169483839	-0.050298652
Variance	2.73515146	0.005661604	Variance	3.595234504	0.563197	Variance	0.206209513	0.026940003
Observations	24	23	Observations	66	23	Observations	66	23
df	23	22	df	65	22	df	65	22
F	483.105394		F	6.383617645		F	7.654398179	
P(F<=f) one-tail	8.8282E-25		P(F<=f) one-tail	5.96138E-06		P(F<=f) one-tail	1.12687E-06	
F Critical one-tail	2.03766616		F Critical one-tail	1.881732377		F Critical one-tail	1.881732377	
T-Test Two-Sample unequal Variances								
1.20914E-07			0.000993473			0.001184821		