

Supplementary material

Table 1. Averages and the corresponding SEMs for the penetration ratio, heterogeneity index and filtered heterogeneity index for MEGP ACSC data, separated for both lungs and time-points. Asterisks indicate the significant differences.

±SEM	^{81m} Krypton		Technegas		<i>p</i> value difference	
	Right Lung	Left Lung	Right lung	Left lung	Right Lung	Left Lung
1 Month follow up						
Penetration Ratio	1.07±0.24	0.84±0.13	1.08±0.34	0.68±0.11	0.91	0.04*
Heterogeneity Index Overall	0.93±0.07	1.07±0.08	0.99±0.09	1.17±0.16	0.23	0.53
Heterogeneity Index 2-4 cm	0.37±0.03	0.37±0.03	0.46±0.05	0.56±0.10	0.08	0.06
3 month follow up						
Penetration Ratio	1.32±0.24	0.86±0.08	1.02±0.17	0.59±0.05	0.04*	5·10 ⁻⁴ *
Heterogeneity Index Overall	1.11±0.10	1.00±0.06	1.25±0.14	1.24±0.12	0.04*	0.07
Heterogeneity Index 2-4 cm	0.41±0.04	0.36±0.03	0.57±0.07	0.59±0.07	0.002*	0.002*

Table 2. Averages and the corresponding SEMs for the penetration ratio, heterogeneity index and filtered heterogeneity index for LEGP ACSC data, separated for both lungs and time-points. Asterisks indicate the significant differences.

±SEM	^{81m} Krypton		Technegas		<i>p</i> value difference	
	Right Lung	Left Lung	Right lung	Left lung	Right Lung	Left Lung
1 Month follow up						
Penetration Ratio	0.93±0.06	0.90±0.07	1.08±0.16	0.74±0.10	0.22	0.006*
Heterogeneity Index Overall	0.69±0.06	0.69±0.05	1.22±0.16	1.21±0.13	9·10 ⁻⁴ *	0.02*
Heterogeneity Index 2-4 cm	0.20±0.02	0.18±0.01	0.56±0.08	0.56±0.07	2·10 ⁻⁴ *	1·10 ⁻⁴ *
3 month follow up						
Penetration Ratio	0.92±0.08	0.79±0.05	0.90±0.11	0.58±0.04	0.75	7·10 ⁻⁴ *
Heterogeneity Index Overall	0.75±0.05	0.71±0.05	1.27±0.14	1.26±0.13	3·10 ⁻⁴ *	0.002*
Heterogeneity Index 2-4 cm	0.20±0.02	0.19±0.01	0.58±0.07	0.60±0.08	5·10 ⁻⁵ *	2·10 ⁻⁴ *

Table 3. Averages and the corresponding SEMs for the penetration ratio, heterogeneity index and filtered heterogeneity index for MEGP AC data, separated for both lungs and time-points. Asterisks indicate the significant differences.

±SEM	^{81m} Krypton		Technegas		<i>p</i> value difference	
	Right Lung	Left Lung	Right lung	Left lung	Right Lung	Left Lung
1 Month follow up						
Penetration Ratio	1.11±0.24	0.88±0.13	1.14±0.35	0.73±0.12	0.79	0.05
Heterogeneity Index Overall	0.88±0.07	1.02±0.08	0.94±0.09	1.10±0.15	0.24	0.58
Heterogeneity Index 2-4 cm	0.33±0.03	0.33±0.03	0.42±0.05	0.51±0.09	0.07	0.06
3 month follow up						
Penetration Ratio	1.34±0.23	0.88±0.08	1.08±0.17	0.63±0.05	0.04*	6·10 ⁻⁴ *
Heterogeneity Index Overall	1.06±0.10	0.95±0.06	1.18±0.13	1.16±0.11	0.04*	0.08
Heterogeneity Index 2-4 cm	0.37±0.04	0.33±0.03	0.52±0.06	0.54±0.06	0.002*	0.001*

Table 4. Averages and the corresponding SEMs for the penetration ratio, heterogeneity index and filtered heterogeneity index for LEGP AC data, separated for both lungs and time-points. Asterisks indicate the significant differences.

±SEM	^{81m} Krypton		Technegas		<i>p</i> value difference	
	Right Lung	Left Lung	Right lung	Left lung	Right Lung	Left Lung
1 Month follow up						
Penetration Ratio	0.99±0.06	0.95±0.07	1.14±0.16	0.79±0.10	0.23	0.004*
Heterogeneity Index Overall	0.68±0.06	0.67±0.05	1.16±0.15	1.14±0.12	0.001*	0.005*
Heterogeneity Index 2-4 cm	0.18±0.02	0.17±0.01	0.51±0.07	0.52±0.07	2·10 ⁻⁴ *	1·10 ⁻⁴ *
3 month follow up						
Penetration Ratio	0.98±0.08	0.83±0.05	0.96±0.11	0.61±0.04	0.68	9·10 ⁻⁴ *
Heterogeneity Index Overall	0.73±0.05	0.68±0.06	1.20±0.13	1.18±0.12	3·10 ⁻⁴ *	0.003*
Heterogeneity Index 2-4 cm	0.19±0.02	0.17±0.02	0.54±0.06	0.55±0.07	5·10 ⁻⁵ *	3·10 ⁻⁴ *

Table 5. Averages and the corresponding SEMs for the penetration ratio, heterogeneity index and filtered heterogeneity index for MEGP NAC data, separated for both lungs and time-points. Asterisks indicate the significant differences.

±SEM	^{81m} Krypton		Technegas		<i>p</i> value difference	
	Right Lung	Left Lung	Right lung	Left lung	Right Lung	Left Lung
1 Month follow up						
Penetration Ratio	0.80±0.13	0.74±0.11	0.77±0.17	0.59±0.09	0.58	0.02*
Heterogeneity Index Overall	0.92±0.07	1.07±0.07	0.94±0.08	1.09±0.16	0.73	0.93
Heterogeneity Index 2-4 cm	0.35±0.03	0.37±0.03	0.42±0.05	0.51±0.09	0.14	0.12
3 month follow up						
Penetration Ratio	0.99±0.16	0.75±0.06	0.77±0.10	0.53±0.04	0.03*	3·10 ⁻⁴ *
Heterogeneity Index Overall	1.08±0.09	1.00±0.06	1.12±0.12	1.14±0.11	0.39	0.24
Heterogeneity Index 2-4 cm	0.39±0.04	0.35±0.03	0.50±0.06	0.53±0.06	0.004*	0.005*

Table 6. Averages and the corresponding SEMs for the penetration ratio, heterogeneity index and filtered heterogeneity index for LEGP NAC data, separated for both lungs and time-points. Asterisks indicate the significant differences.

±SEM	^{81m} Krypton		Technegas		<i>p</i> value difference	
	Right Lung	Left Lung	Right lung	Left lung	Right Lung	Left Lung
1 Month follow up						
Penetration Ratio	0.74±0.05	0.76±0.06	0.84±0.10	0.64±0.09	0.19	0.01*
Heterogeneity Index Overall	0.66±0.04	0.67±0.03	1.11±0.13	1.09±0.11	0.001*	0.008*
Heterogeneity Index 2-4 cm	0.19±0.01	0.18±0.01	0.49±0.06	0.49±0.06	2·10 ⁻⁴ *	2·10 ⁻⁴ *
3 month follow up						
Penetration Ratio	0.72±0.05	0.68±0.04	0.70±0.08	0.52±0.04	0.63	2·10 ⁻⁴ *
Heterogeneity Index Overall	0.71±0.04	0.69±0.04	1.13±0.12	1.14±0.12	8·10 ⁻⁴ *	0.005*
Heterogeneity Index 2-4 cm	0.20±0.02	0.19±0.01	0.50±0.06	0.52±0.06	7·10 ⁻⁵ *	2·10 ⁻⁴ *