Table.

1.

All Nodule (32* 5 readers)		| % difference in two time points from session1 | Mean (SD)	| % difference in two time points from session 3| Mean (SD)
	1D: Distance	12.84% (20.88)	9.88% (14.90)
	2D: Manual	26.40% (64.94)	17.73% (32.54)
	3D: Volume	38.03% (114.32)	28.50% (65.12)

The absolute changes of 1D, 2D, and 3D using the 1st session or 3rd session are not statistically different, though numerically different (test: the mixed effect model and nested ANOVA) (P>0.05).

All Nodule (32* 5 readers)		| % difference in two time points from session 1| Mean (SD)	| % difference in two time points from session 3| Mean (SD)
Measurable as RECIST Target lesion (28 lesions)	1D: Distance	11.97% (21.77)	8.41 (13.83)
	2D: Manual	25.35% (68.92)	16.05 (32.51)
	3D: Volume	32.40% (101.22)	29.40 (68.46)
Not Measurable as RECIST Target lesion (4 lesions)	1D: Distance	18.93% (11.79)	20.19 (18.15)
	2D: Manual	33.74% (21.93)	29.54 (31.00)
	3D: Volume	77.42 % (180.43)	22.23 (34.06)

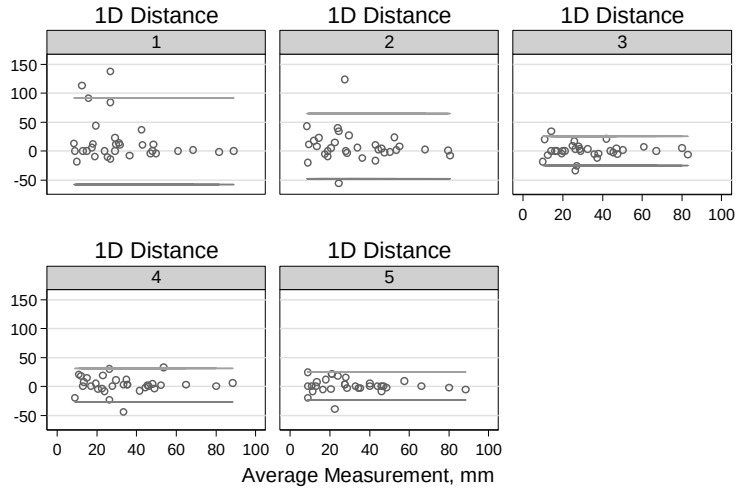
All Nodule (32* 5 readers)		| % difference in two time points| N, Mean (SD) Session 2 from 1	| % difference in two time points| N, Mean (SD) Session 2 from 3
Simple <12% in all (1D, 2D, and 3D).	1D: Distance	N=9, 3.03% (2.93)	N=7, 4.10% (3.43)
	2D: Manual	N=9, 6.69% (5.64)	N=7,6.60% (5.89)
	3D: Volume	N=9, 9.31% (10.37)	N=7, 5.59% (4.92)
Moderate	1D: Distance	N=15, 12.80% (17.48)	N=12, 9.59% (10.22)
	2D: Manual	N=15, 20.03% (20.84)	N=12, 14.60% (19.47)
	3D: Volume	N=15, 13.38% (12.60)	N=12, 18.91% (19.58)
Difficult >=12% in 2D and 3D	1D: Distance	N=8, 23.96% (30.83)	N=13, 13.26 (20.47)
	2D: Manual	N=8, 60.52% (120.89)	N=13, 26.63 (45.88)
	3D: Volume	N=8, 116.55 % (210.75)	N=13, 49.69 (96.65)

The simple cases are defined if the mean from 5 readers in the absolute value of the percent difference are <12% in all three measurements (1D, 2D, and 3D).
The difficult cases are defined if the mean from 5 readers in the absolute value of the percent difference are >=12% in all two measurements (2D, and 3D).
The Moderate cases are from the rest of cases.

The simple cases turned out to be solid and *measurable as RECIST target lesion, mostly had no cavity (8/9), connected to nearby anatomical structure (7/9), included vessel in the lesion (8/9), and spiculated (7/9).*

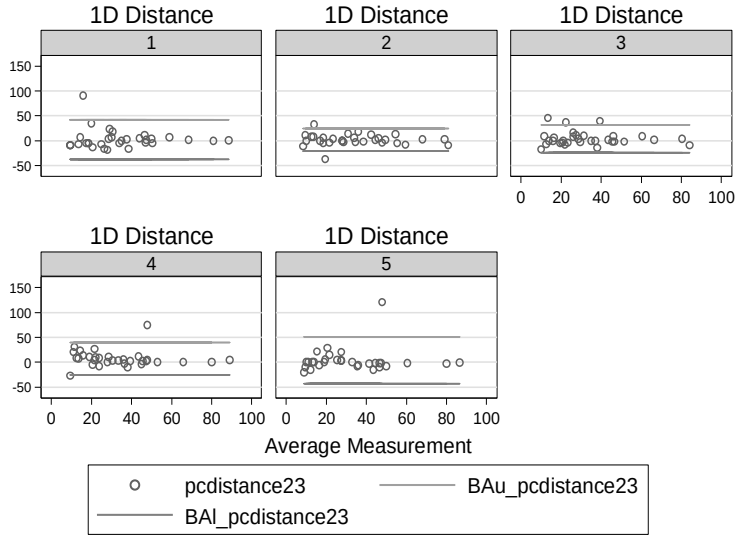
The difficult cases turned out to be mostly *measurable as RECIST target lesion (2/8), mostly had no cavity (7/8), connected to nearby anatomical structure (5/8), included vessel in the lesion (6/8), and spiculated (6/8) and solid (6/8).*

Repeated Scan by Reader 1 to 5
Session 2 from 1



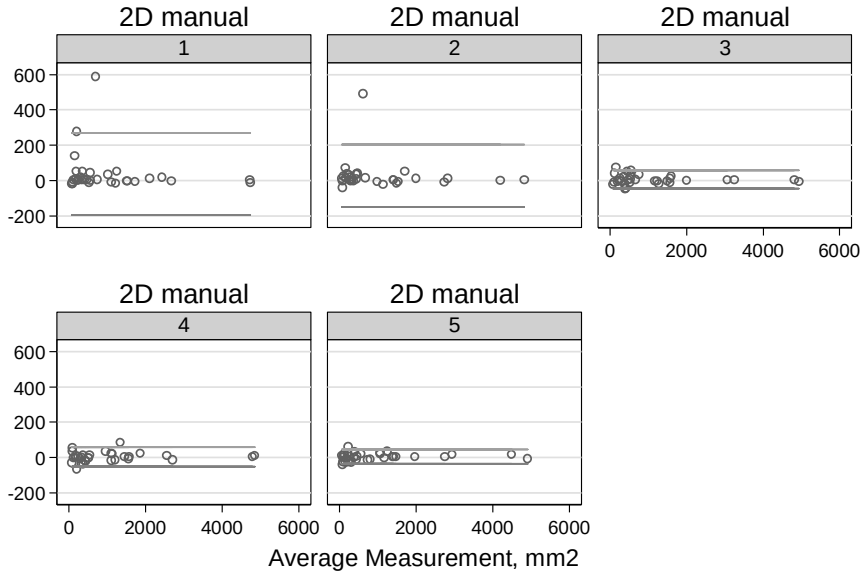
Graphs by Reader

Session 3 from 1



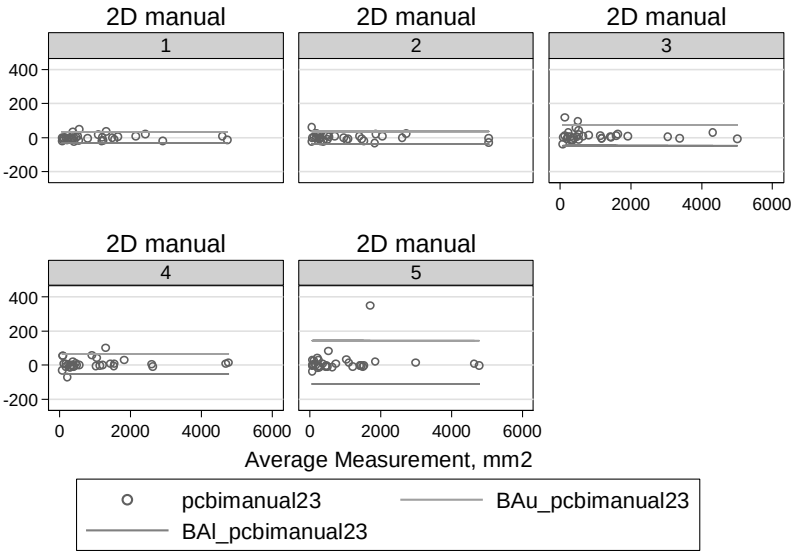
Graphs by Reader

Session 2 from 1



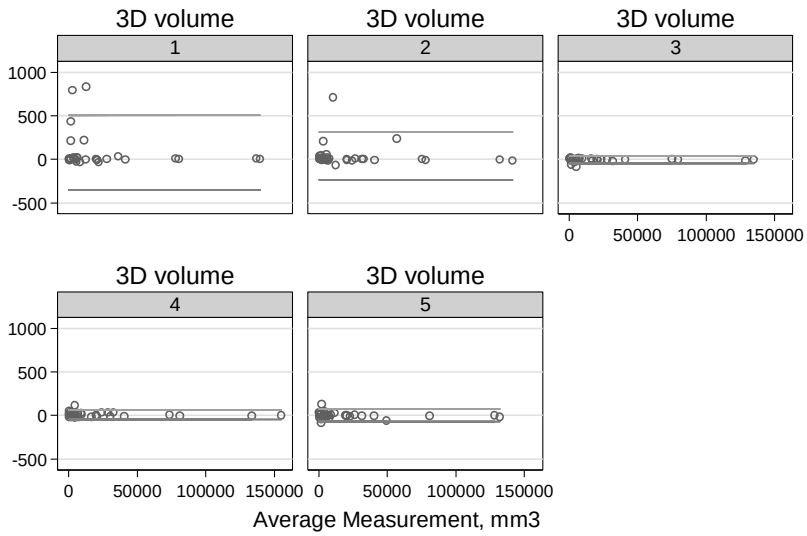
Graphs by Reader

Session 2 from 3



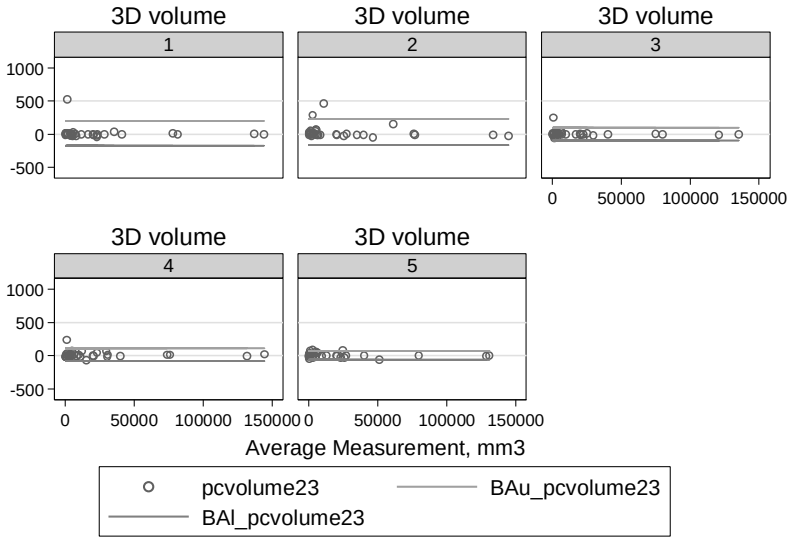
Graphs by Reader

Session 2 from 1

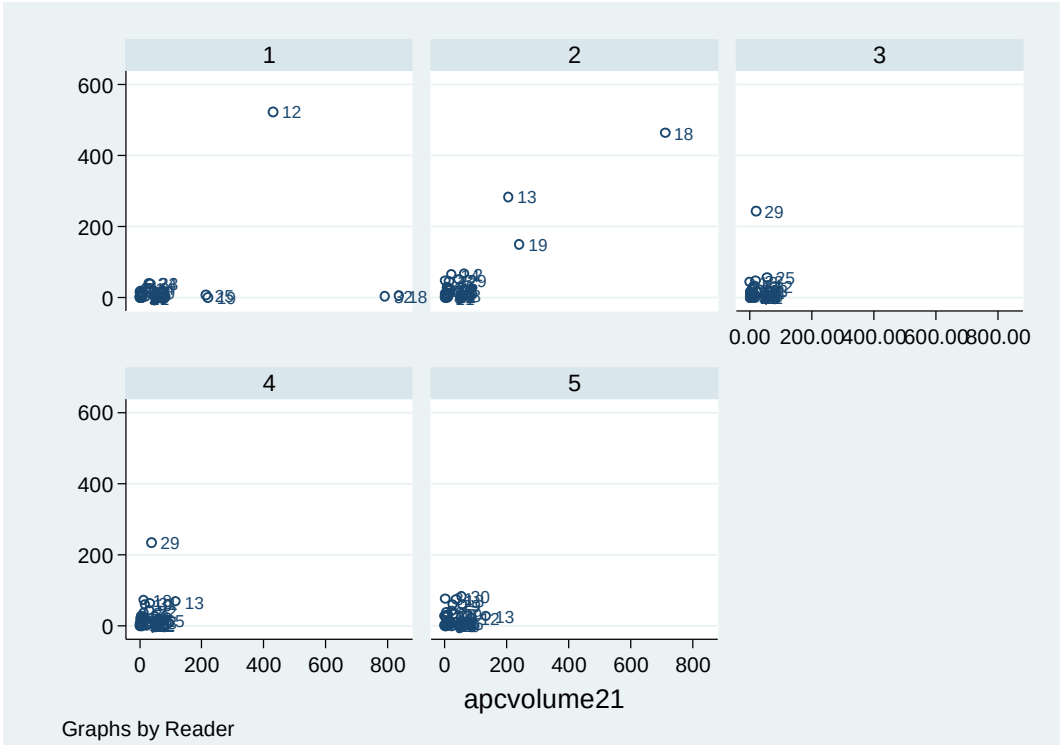


Graphs by Reader

Session 2 from 3



Graphs by Reader



	subject	volume1	volume2	volume3	reader
143.	29	1303	1563	455	3
144.	29	1317	1813	542	4