B. B. S. Patient Summary Patient Study Based on Lesion Graph

Lesion Count According to Classification

Time Layer	complex	disappeared	lone	merged	new	persistent	split
0	0	0	1	0	5	0	0
1	0	0	0	0	6	5	0
2	0	3	0	0	1	8	0
3	0	0	2	1	0	7	0

Tracking the Changes in the Total Volume of the Tumors From One Scan to the Previous One

Time Stamp	Total Volume [cm³]	Volume Difference Percentage	Volume Difference [cm³]
0	0.4	-	-
1	1.32	+233%	+0.93
2	1.11	-16%	-0.21
3	0.95	-14%	-0.16

Individual Lesion Changes

New Lesions

Lesions 5, 8 appeared for the first time in the last scan.

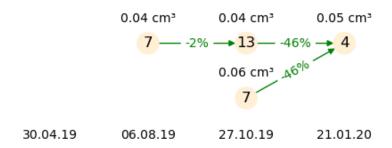
Disappeared Lesions

Over time, 3 lesions disappeared.

- 0 lesions were last identified in 30.04.19.
- 3 lesions were last identified in 06.08.19.
- 0 lesions were last identified in 27.10.19.

Lesions Appearing in Multiple Scans

• The History of Lesion 4



Lesion volume has decreased by 31% from previous scan to current scan. Volume shows both increases and decreases over time from first scan to last scan.

Classification of connected component: merge.

$$0.03 \text{ cm}^3$$
 0 cm^3 0.05 cm^3 0 cm^3

$$3 - 100\% \rightarrow 13 - 6 - 100\% \rightarrow 9$$

$$30.04.19 \quad 06.08.19 \quad 27.10.19 \quad 21.01.20$$

Lesion volume has decreased by 182% from previous scan to current scan. Volume monotonically increased over time by 182% from first scan to last scan.

Classification of connected component: linear.

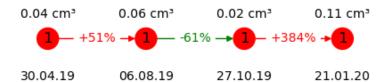
• The History of Lesion 10

0.16 cm³ 0 cm³ 0.08 cm³ 0 cm³

$$6 - -100\% \rightarrow 14 - + - 8 - -100\% \rightarrow 10$$
30.04.19 06.08.19 27.10.19 21.01.20

Lesion volume has decreased by 49% from previous scan to current scan. Volume monotonically increased over time by 49% from first scan to last scan.

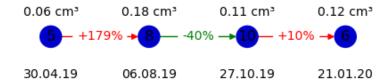
Classification of connected component: linear.



Lesion volume has decreased by 384% from previous scan to current scan. Volume shows both increases and decreases over time from first scan to last scan.

Classification of connected component: linear.

• The History of Lesion 6



Lesion volume has decreased by 147% from previous scan to current scan. Volume monotonically decreased over time by 26% from first scan to last scan.

Classification of connected component: linear.

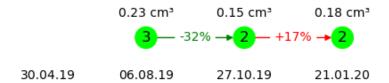
0.03 cm³ 0.09 cm³ 0.03 cm³ 0.1 cm³

$$7 - +193\% + 11 - -67\% + 12 - +270\% + 7$$
30.04.19 06.08.19 27.10.19 21.01.20

Lesion volume has decreased by 85% from previous scan to current scan. Volume monotonically increased over time by 253% from first scan to last scan.

Classification of connected component: linear.

• The History of Lesion 2



Lesion volume has decreased by 17% from previous scan to current scan. Volume shows both increases and decreases over time from first scan to last scan.

Classification of connected component: linear.

$$0.08 \text{ cm}^{3} \qquad 0.04 \text{ cm}^{3} \qquad 0.22 \text{ cm}^{3}$$

$$\boxed{4 - -48\% \rightarrow \boxed{4} - +440\% \rightarrow \boxed{3}}$$

$$30.04.19 \qquad 06.08.19 \qquad 27.10.19 \qquad 21.01.20$$

Lesion volume has decreased by 0% from previous scan to current scan. Volume shows both increases and decreases over time from first scan to last scan.

Classification of connected component: linear.