A. S. H. 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	0	0	13	0	0
1	0	0	0	2	0	6	0
2	0	0	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	647.47	-	-
1	712.19	+10%	+64.73
2	690.31	-3%	-21.88
3	785.18	+14%	+94.87

Individual Lesion Changes

New Lesions

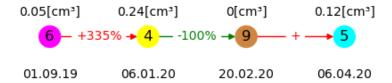
Lesions 6, 9 appeared for the first time in the last scan.

Disappeared Lesions

Over time, no lesions disappeared.

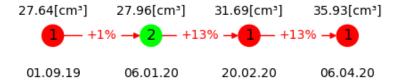
Lesions Appearing in Multiple Scans

• The History of Lesion 5



Lesion volume has decreased by 94% from previous scan to current scan. Volume shows both increases and decreases over time from first scan to last scan.

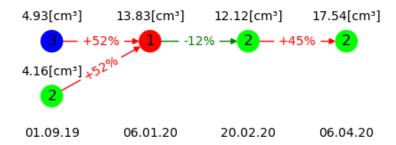
Classification of connected component: linear.



Lesion volume has decreased by 13% from previous scan to current scan. Volume shows both increases and decreases over time from first scan to last scan.

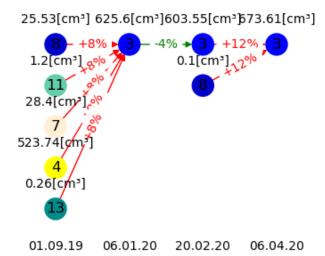
Classification of connected component: linear.

• The History of Lesion 2



Lesion volume has decreased by 45% from previous scan to current scan. Volume shows both increases and decreases over time from first scan to last scan.

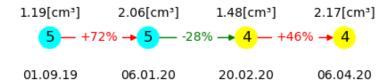
Classification of connected component: merge.



Lesion volume has decreased by 12% 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.

• The History of Lesion 4



Lesion volume has decreased by 46% 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.

1.78[cm³] 2.8[cm³] 1.87[cm³] 2.64[cm³]
9
$$\rightarrow$$
 +57% \rightarrow 6 \rightarrow -33% \rightarrow 5 \rightarrow +41% \rightarrow 7
01.09.19 06.01.20 20.02.20 06.04.20

Lesion volume has decreased by 78% from previous scan to current scan. Volume consistently decreased over time by 91% from first scan to last scan.

Classification of connected component: linear.

• The History of Lesion 8

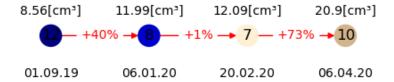
20.01[cm³] 27.71[cm³] 27.42[cm³] 32.02[cm³]

$$10 - +38\% \rightarrow 7 - -1\% \rightarrow 6 - +17\% \rightarrow 8$$

01.09.19 06.01.20 20.02.20 06.04.20

Lesion volume has decreased by 32662% from previous scan to current scan. Volume consistently decreased over time by 25% from first scan to last scan.

Classification of connected component: linear.



Lesion volume has decreased by 4% from previous scan to current scan. Volume consistently increased over time by 4% from first scan to last scan.

Classification of connected component: linear.