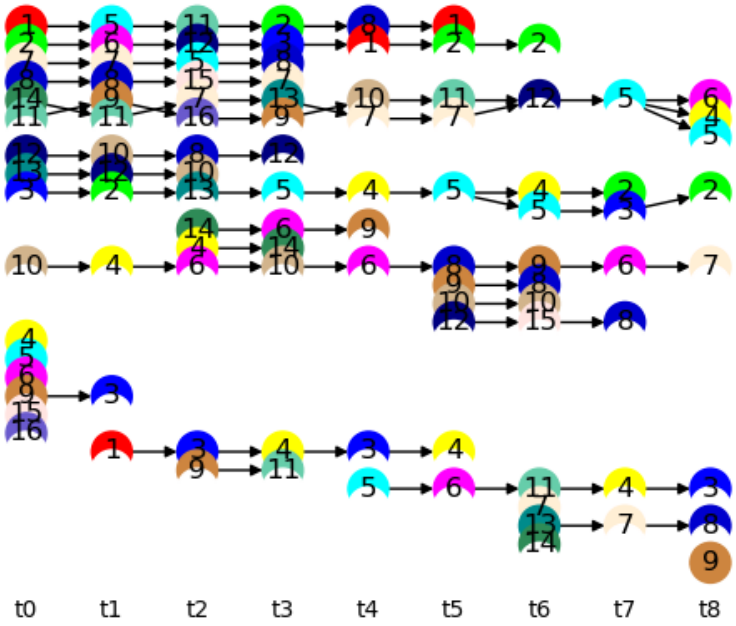
C. A. Patient Summary

Patient Study Based on Lesion Graph



Di Veroli B., Joskowicz L. A Graph Theoretic Approach for Analysis of Lesion Changes and Lesions Detection Review in Longitudinal Ontological Imaging, CASMIP Hebrew University, 2023

Lesion Counting According to Their Classification

Time Layer	complex	disappeared	lone	merged	new	persistent	split
0	0	0	0	0	11	0	0
1	0	1	0	0	1	10	0
2	0	1	0	0	3	10	0
3	0	5	0	0	0	8	0
4	0	1	0	0	1	7	0
5	0	2	0	0	3	5	1
6	0	3	0	1	1	5	0
7	0	2	0	0	0	4	1
8	0	0	0	0	0	7	0

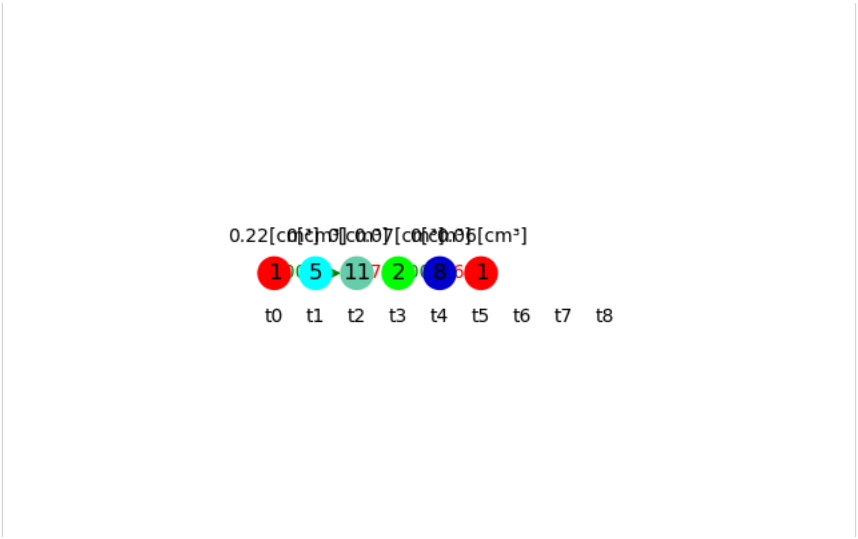
Tracking the Changes in the Total Volume of the Tumors From One Scan to the Previous One

Time Stamp	Total Volume [cm³]	Volume Difference Percentage	Volume Difference [cm³]
0	16.9	0%	0
1	1.46	-91%	-15.44
2	1.64	+12%	+0.17
3	3.34	+104%	+1.7
4	12.96	+288%	+9.62
5	15.79	+22%	+2.83
6	13.21	-16%	-2.58
7	12.1	-8%	-1.11
8	8.61	-29%	-3.49

Individual Lesion Changes

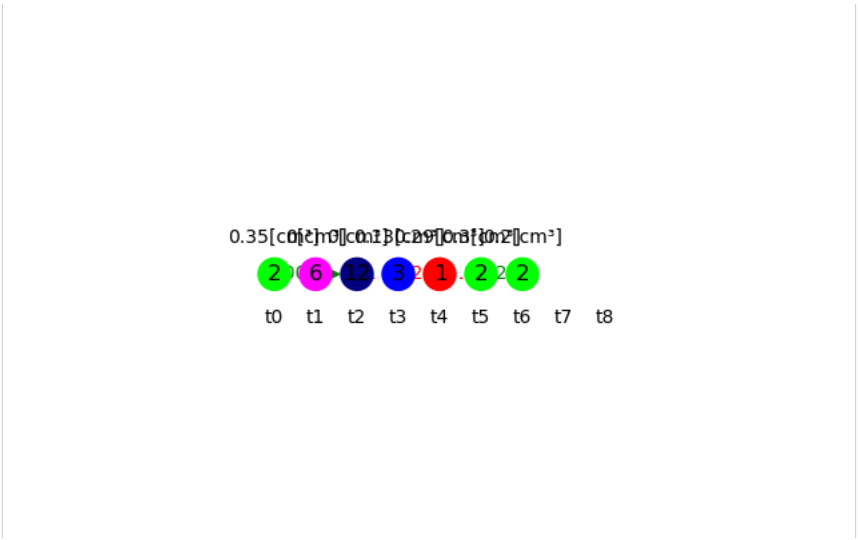
In the following graphs along each edge, the % change in volume between one scan and the next is shown in green/red; On top of each node, the actual volume is shown in cubic cm, and under each node the time stamp appears.

The History of Lesion 1



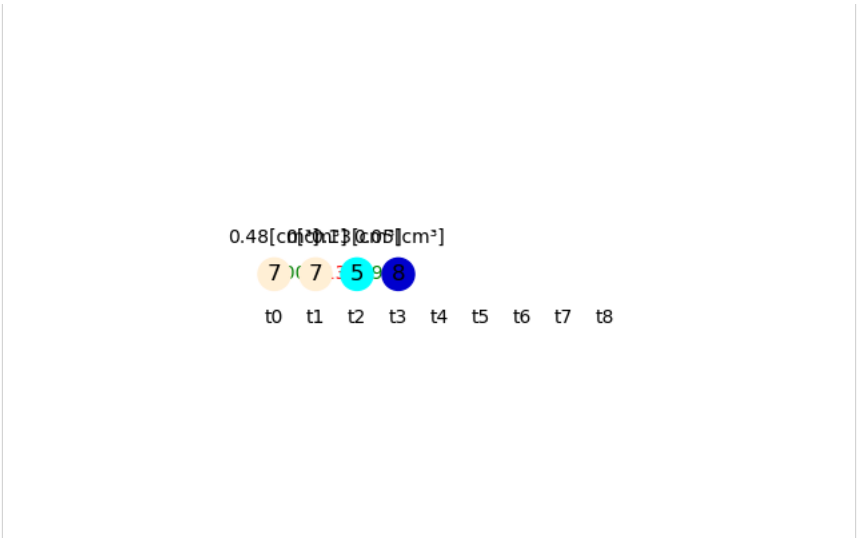
Lesion volume has decreased by 20% from previous scan to current scan. Volume shows both increases and decreases over time from first scan to last scan.

The History of Lesion 2



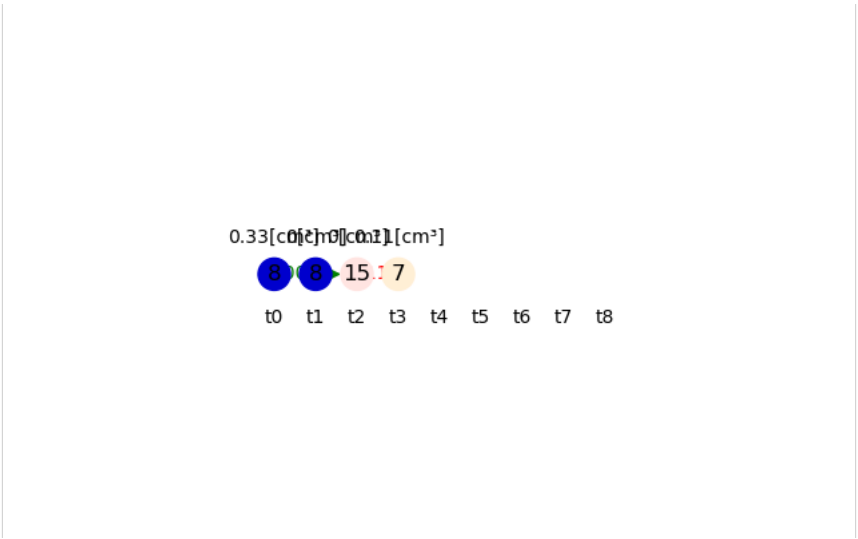
Lesion volume has decreased by 184% from previous scan to current scan. Volume shows both increases and decreases over time from first scan to last scan.

The History of Lesion 8



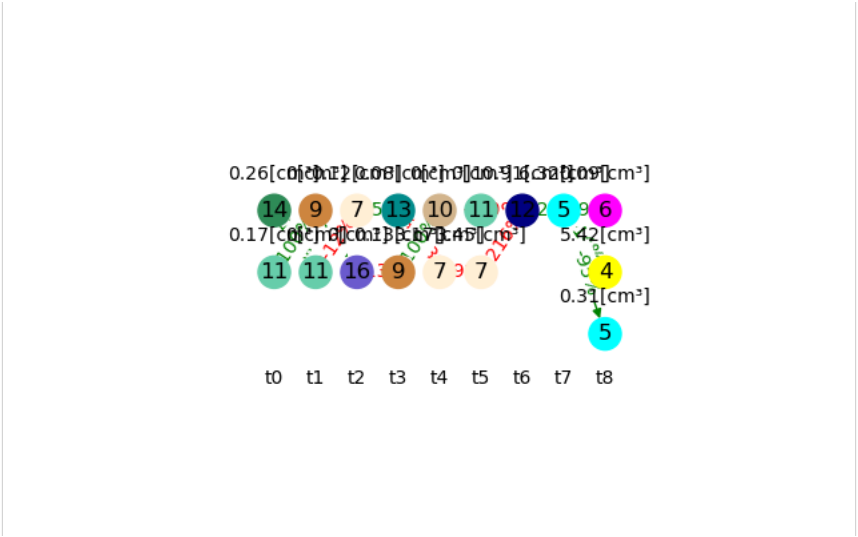
Lesion volume has decreased by 54% from previous scan to current scan. Volume shows both increases and decreases over time from first scan to last scan.

The History of Lesion 7



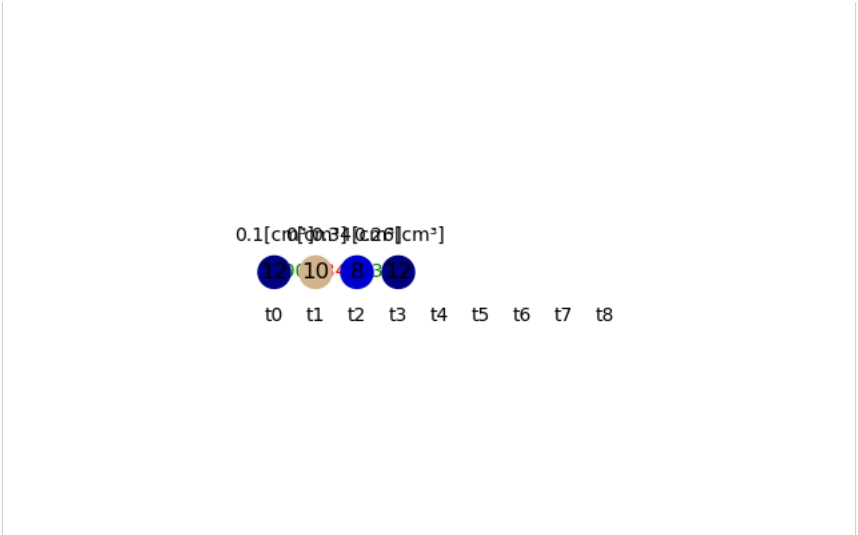
Lesion volume has decreased by 64% from previous scan to current scan. Volume shows both increases and decreases over time from first scan to last scan.

The History of Lesions 6, 4, 5



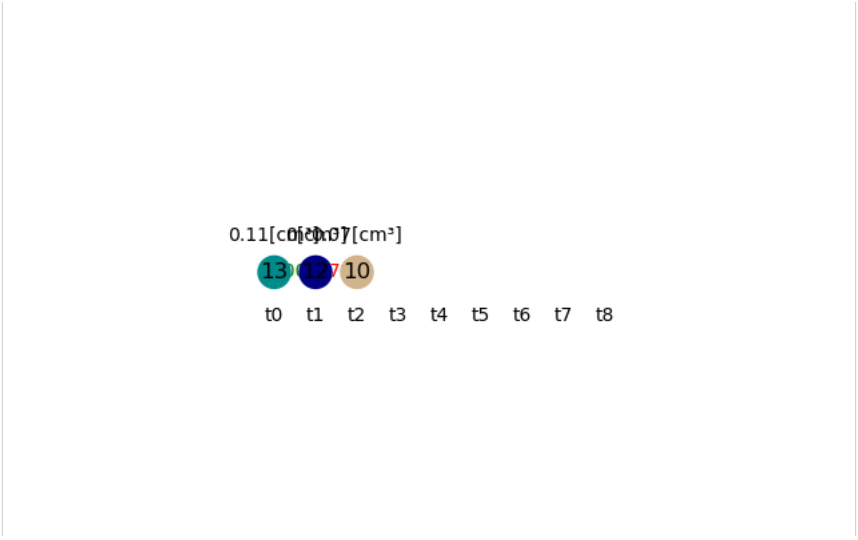
Lesion volume has decreased by 10% from previous scan to current scan. Volume consistently decreased over time by 89% from first scan to last scan.

The History of Lesion 12



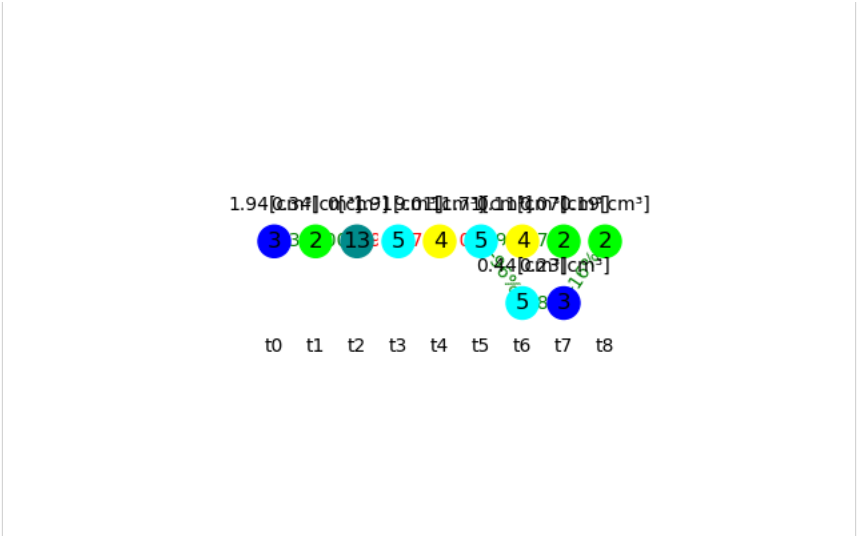
Lesion volume has decreased by 4021% from previous scan to current scan. Volume consistently increased over time by 10296% from first scan to last scan.

The History of Lesion 10



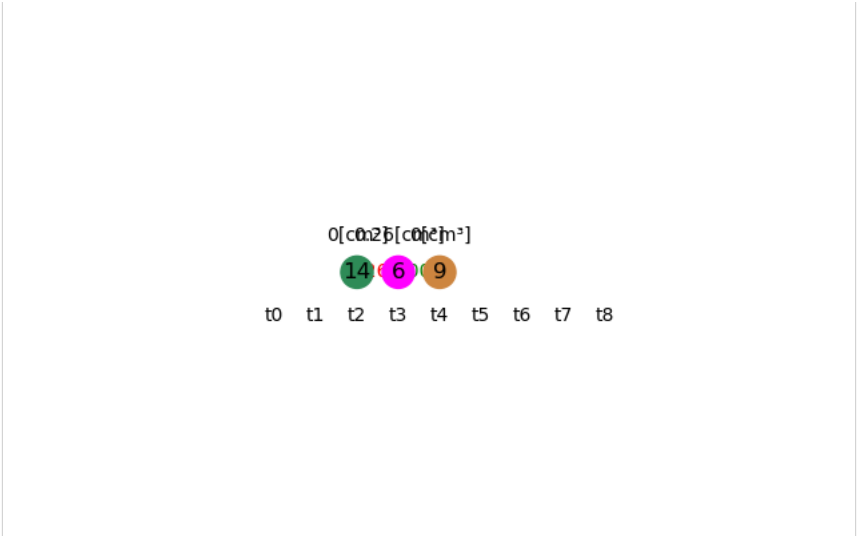
Lesion volume has decreased by 34% from previous scan to current scan. Volume shows both increases and decreases over time from first scan to last scan.

The History of Lesion 2



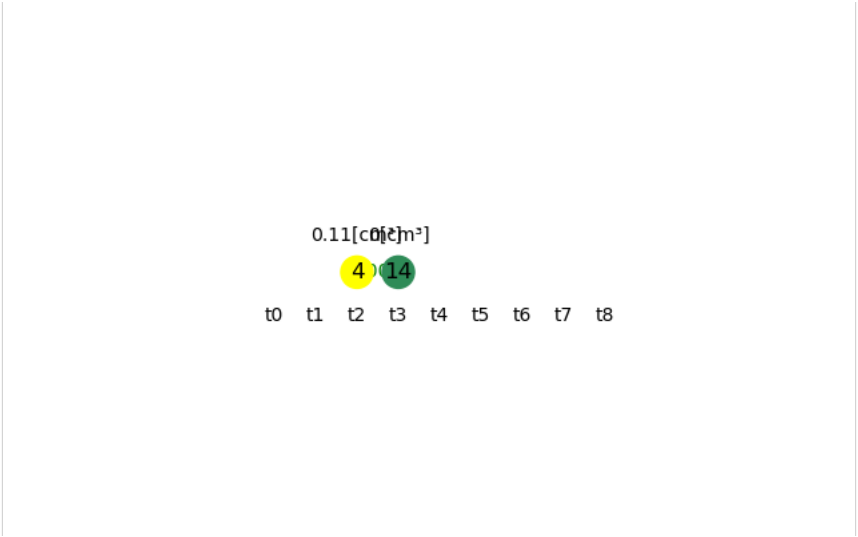
Lesion volume has decreased by 184% from previous scan to current scan. Volume shows both increases and decreases over time from first scan to last scan.

The History of Lesion 9



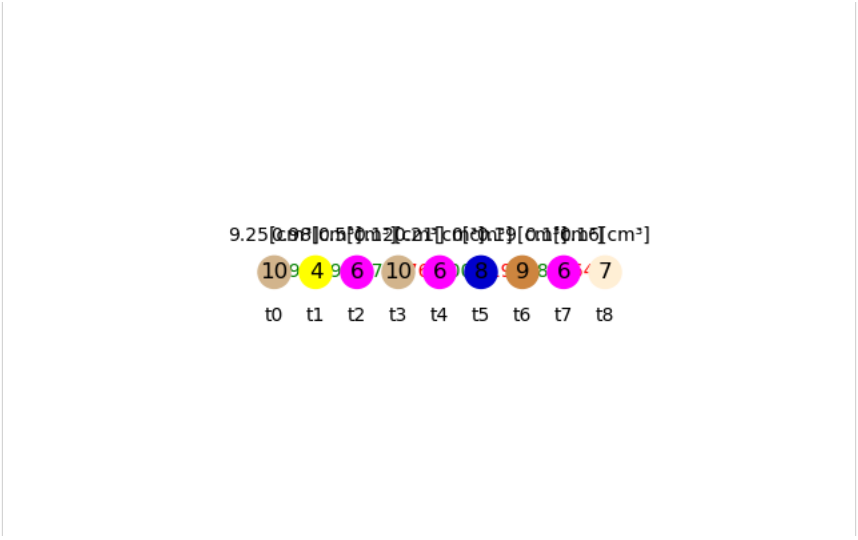
Lesion volume has decreased by 49% from previous scan to current scan. Volume shows both increases and decreases over time from first scan to last scan.

The History of Lesion 14



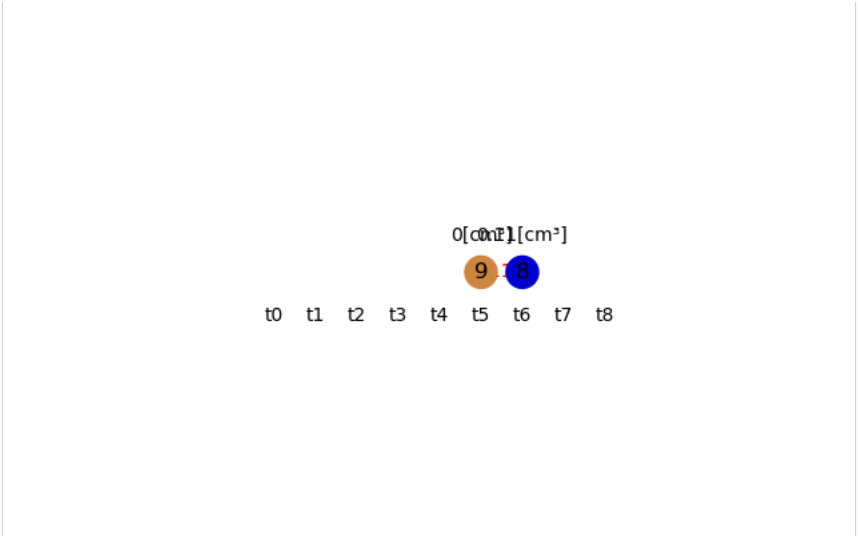
Lesion volume has decreased by 65% from previous scan to current scan. Volume consistently increased over time by 65% from first scan to last scan.

The History of Lesion 7



Lesion volume has decreased by 64% from previous scan to current scan. Volume shows both increases and decreases over time from first scan to last scan.

The History of Lesion 8

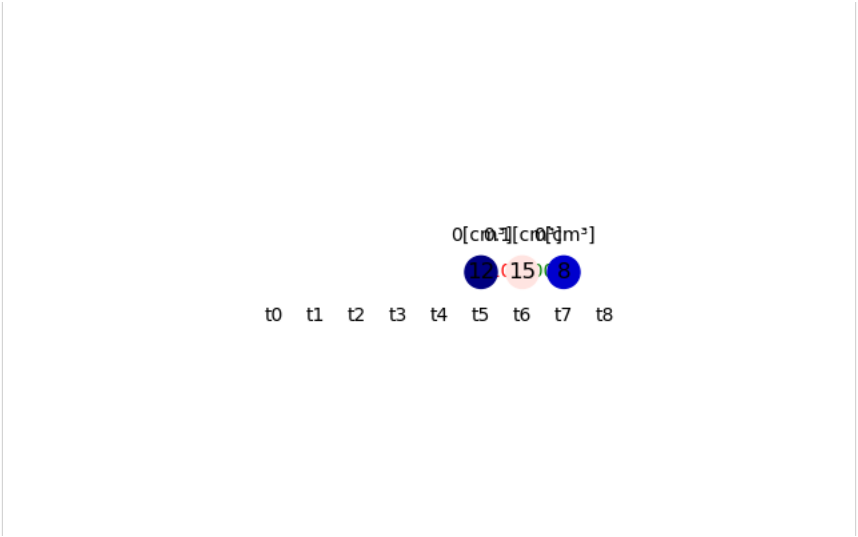


Lesion volume has decreased by 54% from previous scan to current scan. Volume shows both increases and decreases over time from first scan to last scan.

The History of Lesion 10

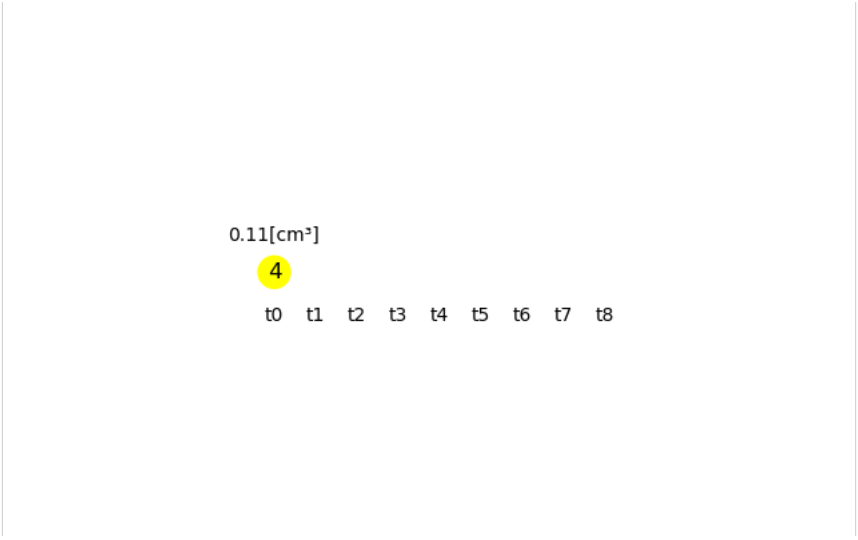
Lesion volume has decreased by 34% from previous scan to current scan. Volume shows both increases and decreases over time from first scan to last scan.

The History of Lesion 8



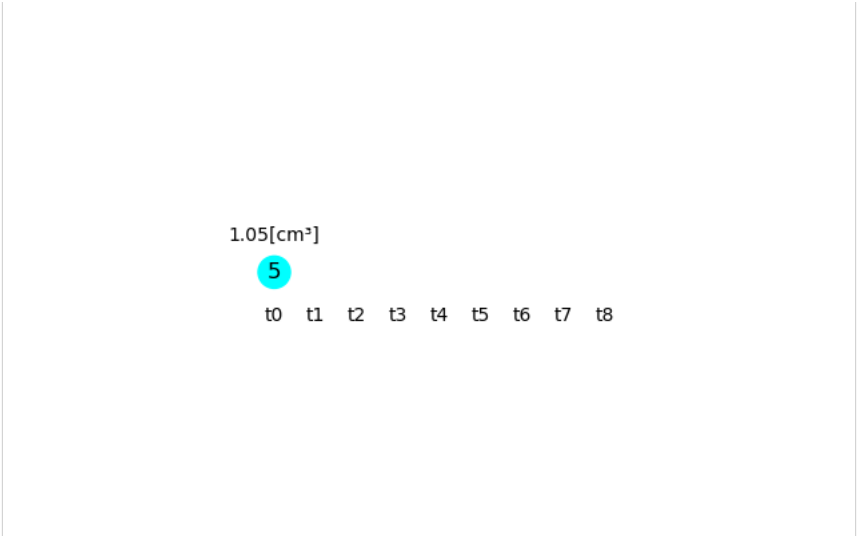
Lesion volume has decreased by 54% from previous scan to current scan. Volume shows both increases and decreases over time from first scan to last scan.

The History of Lesion 4



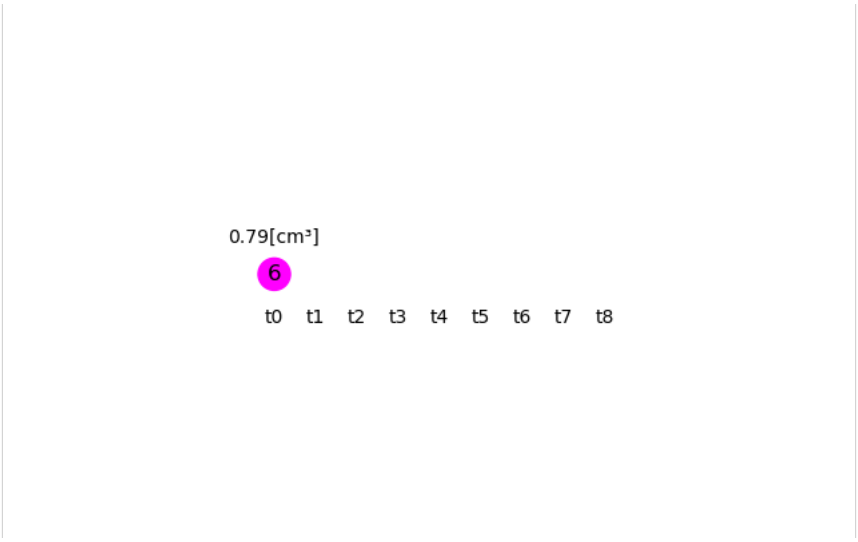
Lesion volume has decreased by 5% from previous scan to current scan. Volume shows both increases and decreases over time from first scan to last scan.

The History of Lesion 5



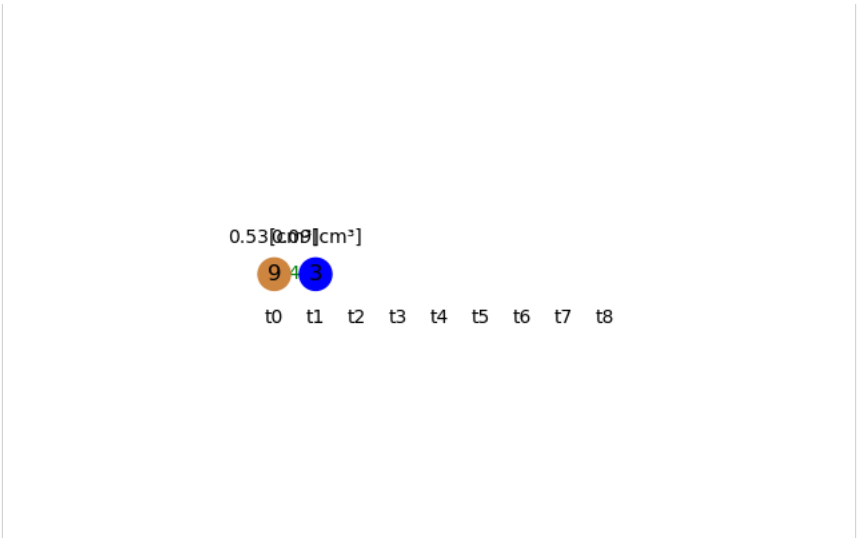
Lesion volume has decreased by 95% from previous scan to current scan. Volume shows both increases and decreases over time from first scan to last scan.

The History of Lesion 6



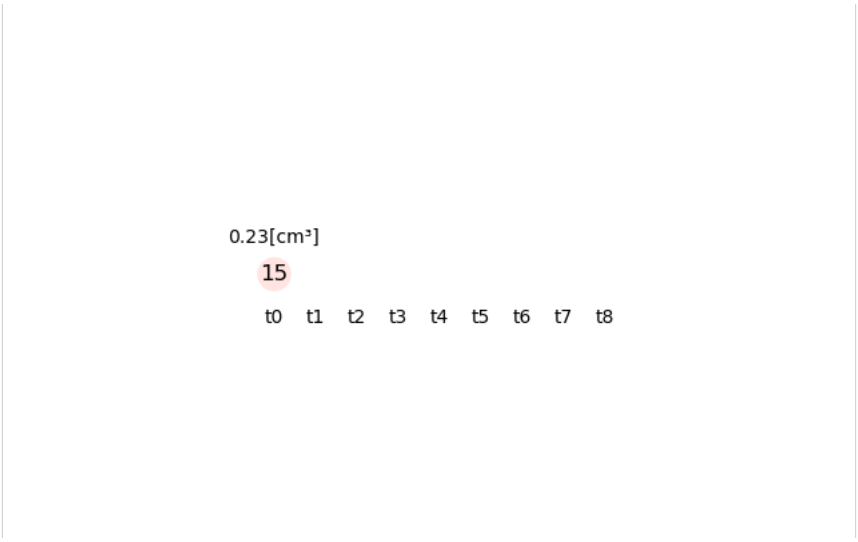
Lesion volume has decreased by 10% from previous scan to current scan. Volume consistently decreased over time by 89% from first scan to last scan.

The History of Lesion 3



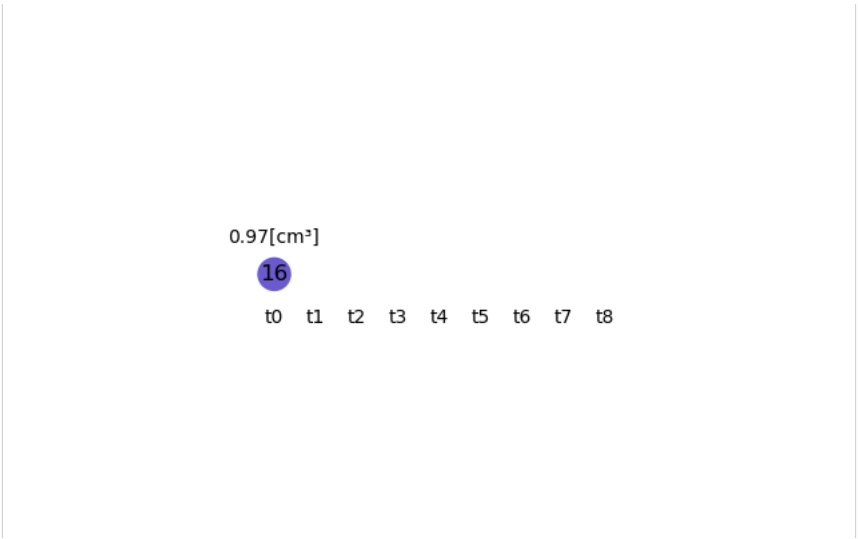
Lesion volume has decreased by 752% from previous scan to current scan. Volume shows both increases and decreases over time from first scan to last scan.

The History of Lesion 15



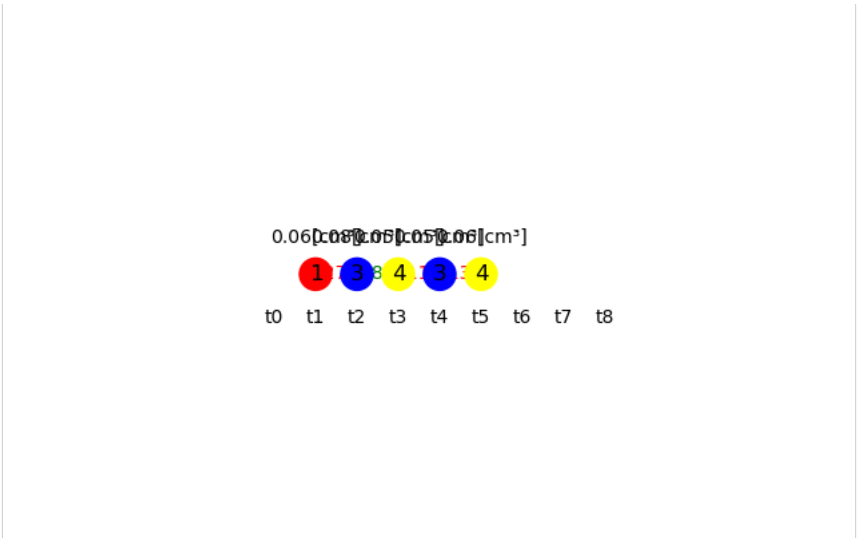
Lesion volume has decreased by 54% from previous scan to current scan. Volume consistently increased over time by 54% from first scan to last scan.

The History of Lesion 16



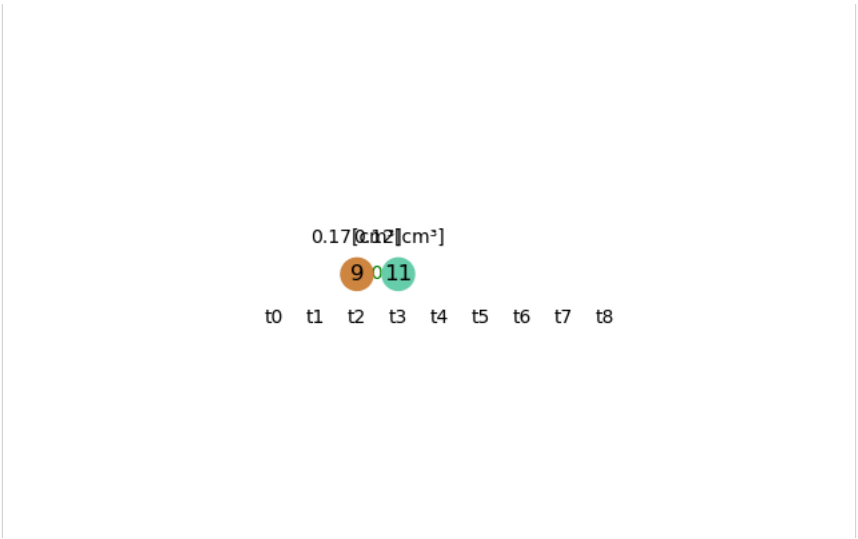
No volume data available for the lesion from previous scansVolume consistently increased over time by 0% from first scan to last scan.

The History of Lesion 4



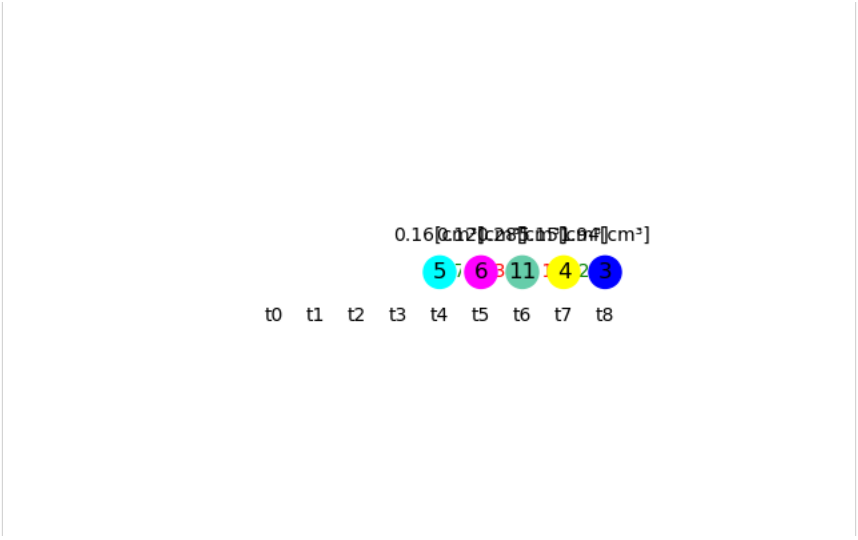
Lesion volume has decreased by 5% from previous scan to current scan. Volume shows both increases and decreases over time from first scan to last scan.

The History of Lesion 11



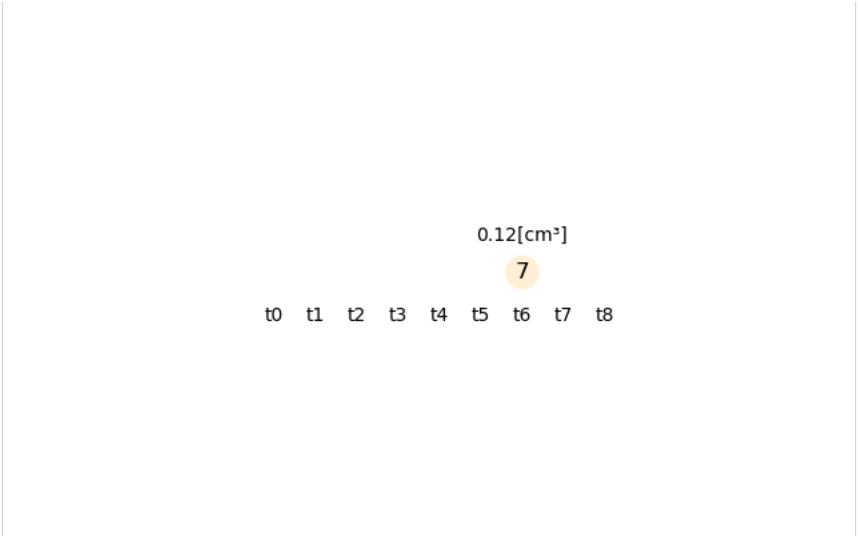
Lesion volume has decreased by 143% from previous scan to current scan. Volume consistently decreased over time by 63% from first scan to last scan.

The History of Lesion 3



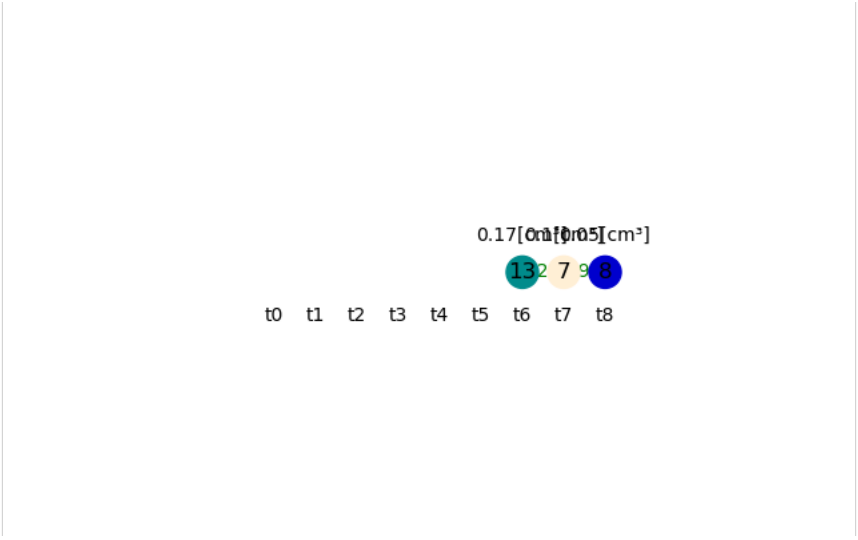
Lesion volume has decreased by 752% from previous scan to current scan. Volume shows both increases and decreases over time from first scan to last scan.

The History of Lesion 7



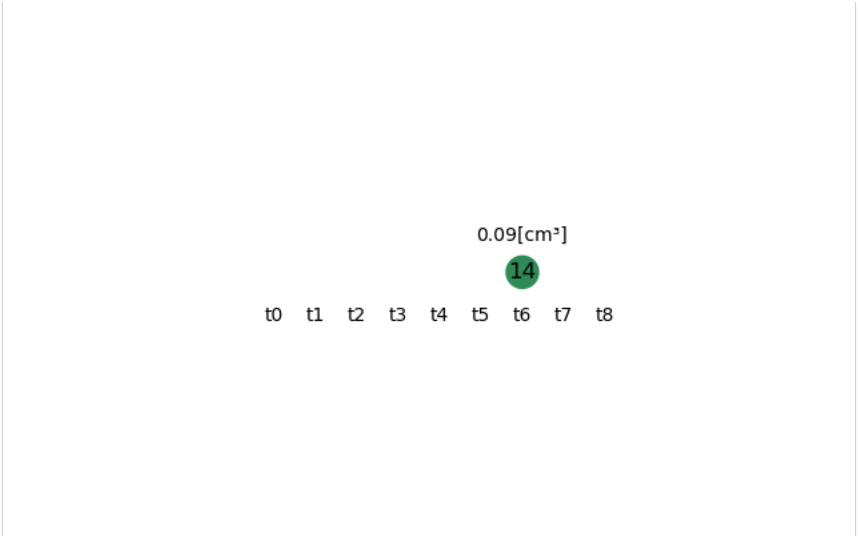
Lesion volume has decreased by 64% from previous scan to current scan. Volume shows both increases and decreases over time from first scan to last scan.

The History of Lesion 8



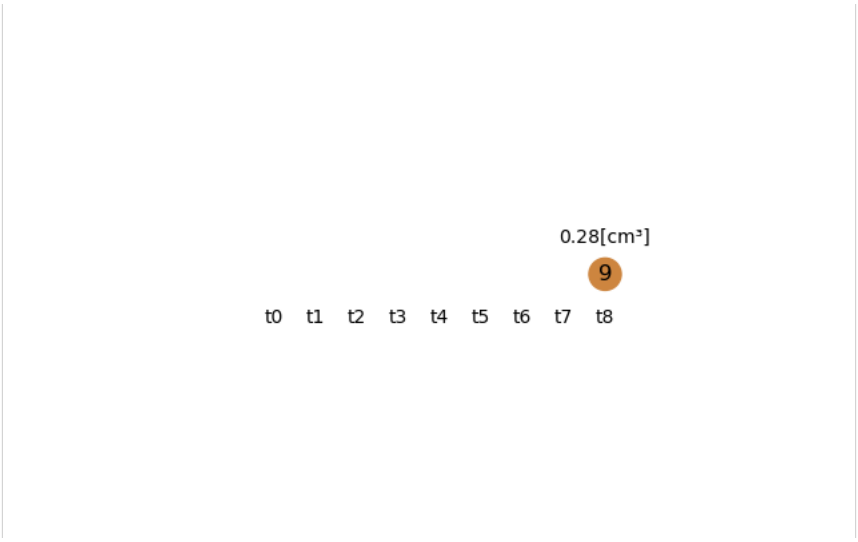
Lesion volume has decreased by 54% from previous scan to current scan. Volume shows both increases and decreases over time from first scan to last scan.

The History of Lesion 14



Lesion volume has decreased by 65% from previous scan to current scan. Volume consistently increased over time by 65% from first scan to last scan.

The History of Lesion 9



Lesion volume has decreased by 49% from previous scan to current scan. Volume shows both increases and decreases over time from first scan to last scan.

Total Lesion Growth History

Tumor burden of 16 lesions decreased over time by 49%