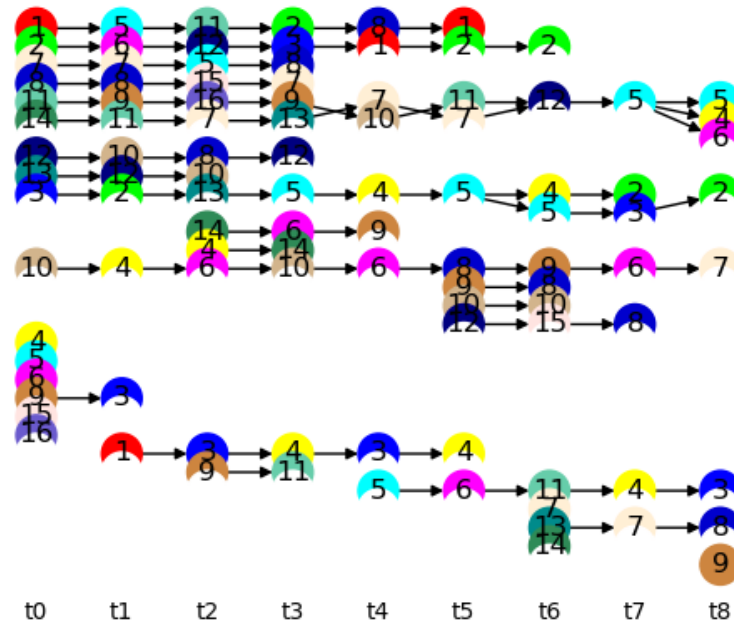


C. A. Patient Summary

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, CSMIP 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

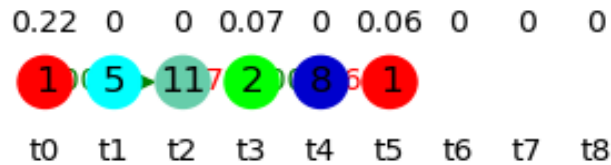
Tracking the Changes in the Total Volume of the Tumors From One Scan to the Previous One

Time Stamp	Total Volume [cm ³]	Volume Difference Percentage	Volume Difference [cm ³]
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 1003



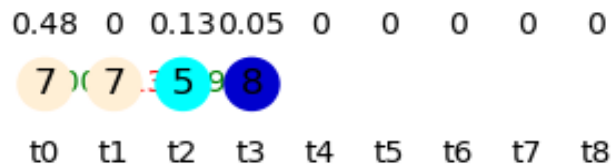
Lesion 1003: No volume data available for the lesion.

The History of Lesion 1002



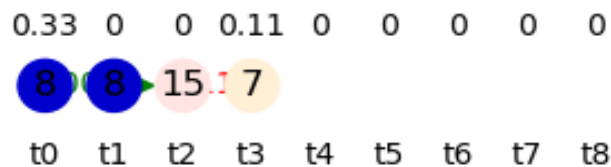
Lesion 1002: No volume data available for the lesion.

The History of Lesion 1005



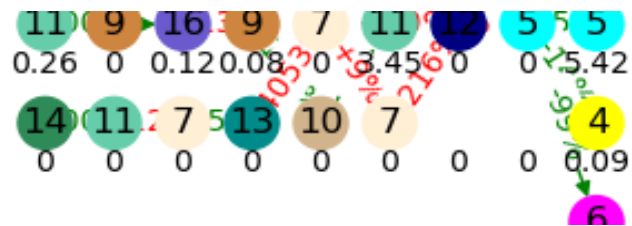
Lesion 1005: No volume data available for the lesion.

The History of Lesion 1005



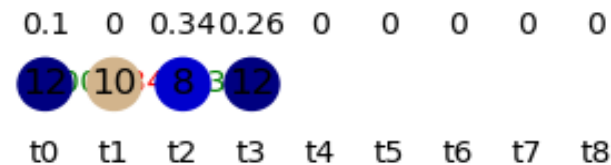
Lesion 1005: No volume data available for the lesion.

The History of Lesion 1010



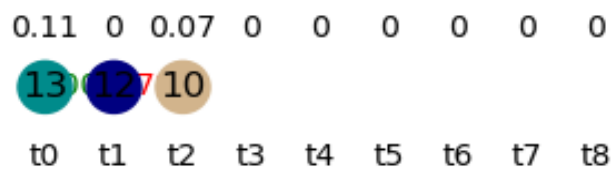
Lesion 1010: No volume data available for the lesion.

The History of Lesion 1005



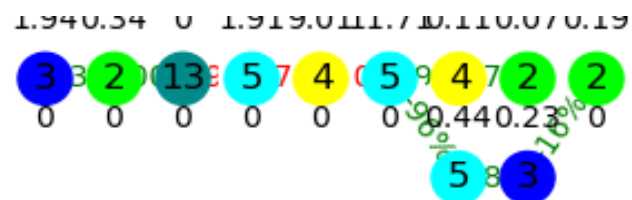
Lesion 1005: No volume data available for the lesion.

The History of Lesion 1006



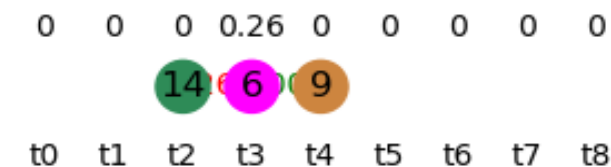
Lesion 1006: No volume data available for the lesion.

The History of Lesion 1007



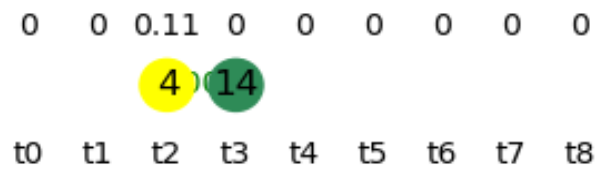
Lesion 1007: No volume data available for the lesion.

The History of Lesion 1006



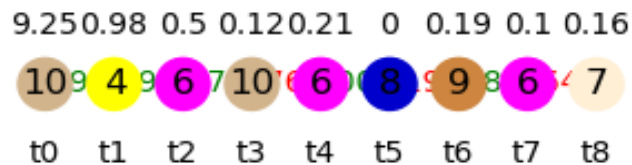
Lesion 1006: No volume data available for the lesion.

The History of Lesion 1007



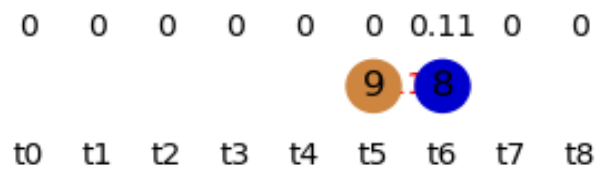
Lesion 1007: No volume data available for the lesion.

The History of Lesion 10



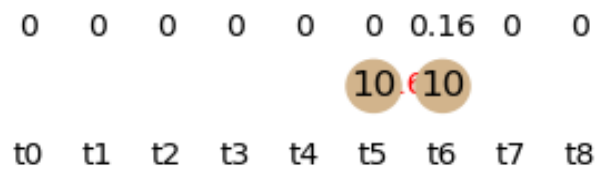
Lesion 10: Lesion volume has decreased by 34% from previous scan to current scan. Volume shows both increases and decreases over time from first scan to last scan.

The History of Lesion 1007



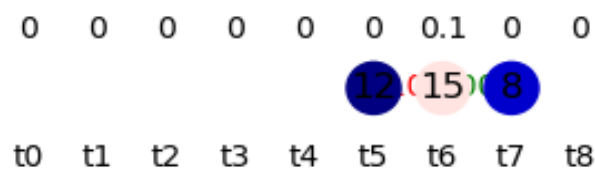
Lesion 1007: No volume data available for the lesion.

The History of Lesion 1007



Lesion 1007: No volume data available for the lesion.

The History of Lesion 1006



Lesion 1006: No volume data available for the lesion.

The History of Lesion 1008

0.11	0	0	0	0	0	0	0	0
4								
t0	t1	t2	t3	t4	t5	t6	t7	t8

Lesion 1008: No volume data available for the lesion.

The History of Lesion 1008

1.05	0	0	0	0	0	0	0	0
5								
t0	t1	t2	t3	t4	t5	t6	t7	t8

Lesion 1008: No volume data available for the lesion.

The History of Lesion 1008

0.79	0	0	0	0	0	0	0	0
6								
t0	t1	t2	t3	t4	t5	t6	t7	t8

Lesion 1008: No volume data available for the lesion.

The History of Lesion 1007

0.53	0.09	0	0	0	0	0	0	0
9	4	3						
t0	t1	t2	t3	t4	t5	t6	t7	t8

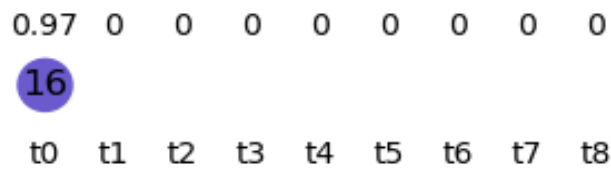
Lesion 1007: No volume data available for the lesion.

The History of Lesion 1008

0.23	0	0	0	0	0	0	0	0
15								
t0	t1	t2	t3	t4	t5	t6	t7	t8

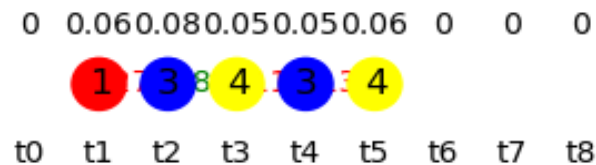
Lesion 1008: No volume data available for the lesion.

The History of Lesion 1008



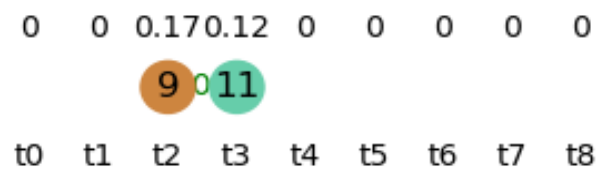
Lesion 1008: No volume data available for the lesion.

The History of Lesion 1004



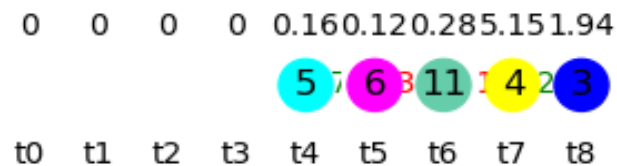
Lesion 1004: No volume data available for the lesion.

The History of Lesion 1007



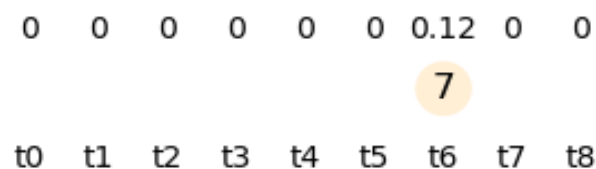
Lesion 1007: No volume data available for the lesion.

The History of Lesion 1004



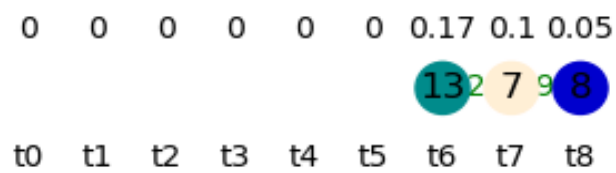
Lesion 1004: No volume data available for the lesion.

The History of Lesion 1008



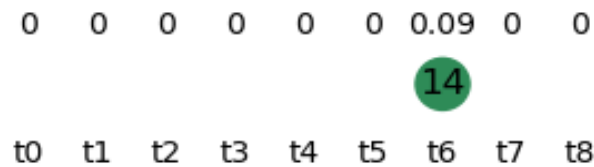
Lesion 1008: No volume data available for the lesion.

The History of Lesion 1006



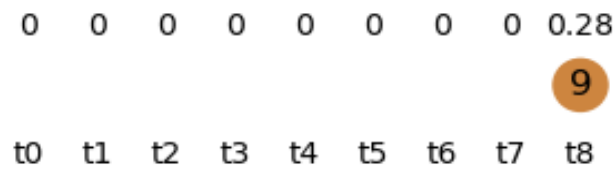
Lesion 1006: No volume data available for the lesion.

The History of Lesion 1008



Lesion 1008: No volume data available for the lesion.

The History of Lesion 1008



Lesion 1008: No volume data available for the lesion.

Total Lesion Growth History

Tumor burden of 16 lesions decreased over time by 49%