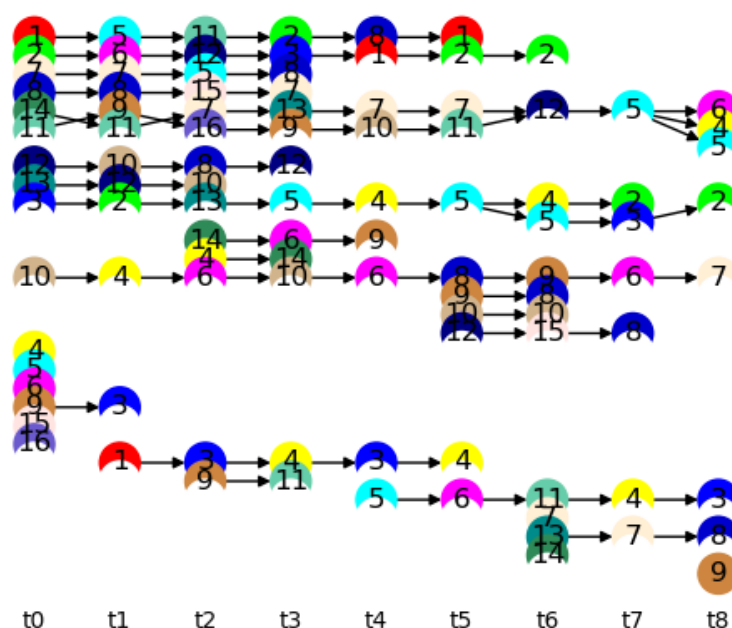


C. A. Patient Summary

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	16	0	0
1	0	5	0	0	1	11	0
2	0	1	0	0	3	11	0
3	0	1	0	0	0	13	0
4	0	5	0	0	1	8	0
5	0	1	0	0	3	7	1
6	0	2	2	1	1	8	0
7	0	5	0	0	0	6	1
8	0	2	1	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	-	-
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

New Lesions

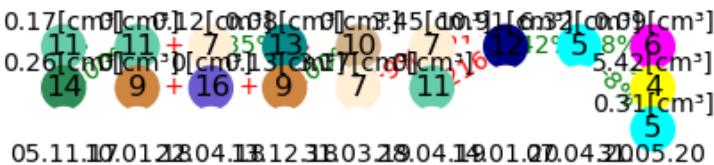
Lesion 9 appeared for the first time in the last scan.

Lesions that have disappeared over time

Over time, 21 lesions disappeared.
5 lesions were last identified in t0 scan.
1 lesion was last identified in t1 scan.
1 lesion was last identified in t2 scan.
5 lesions were last identified in t3 scan.
1 lesion was last identified in t4 scan.
2 lesions were last identified in t5 scan.
5 lesions were last identified in t6 scan.
1 lesion was last identified in t7 scan.

Lesions appearing throughout several scans

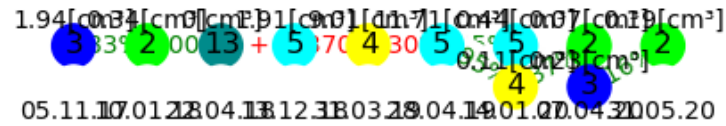
The History of Lesions 6, 4, 5



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.

Classification of connected component: complex_p

The History of Lesion 2



Lesion volume has decreased by 88% from previous scan to current scan. Volume shows both increases and decreases over time from first scan to last scan.

Classification of connected component: split_p

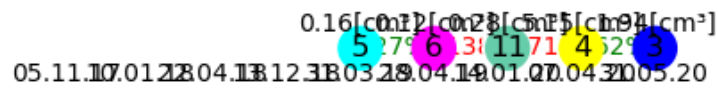
The History of Lesion 7



Lesion volume has decreased by 82% 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_p

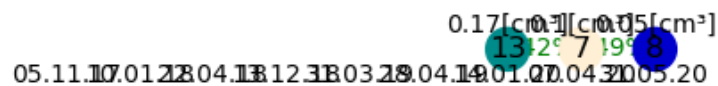
The History of Lesion 3



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.

Classification of connected component: linear_p

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.

Classification of connected component: linear_p