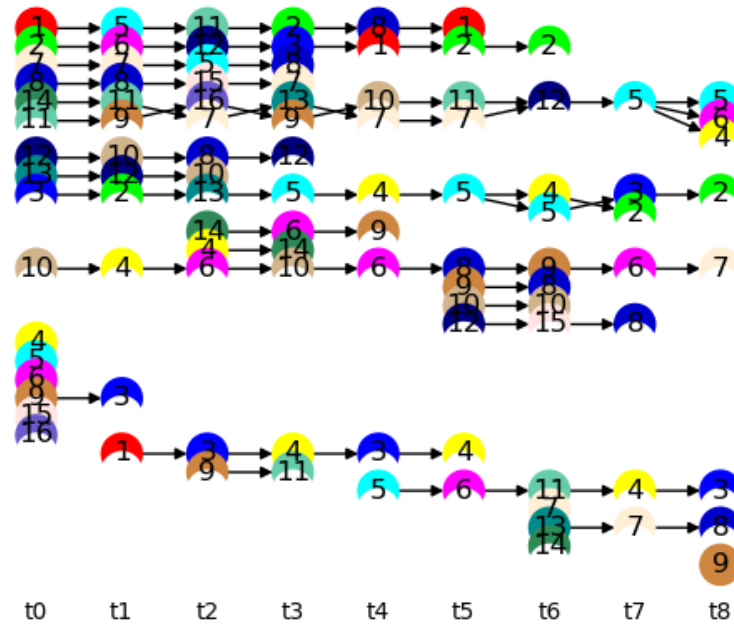


## C. A. Patient Summary

### 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	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 <sup>3</sup> ]	Volume Difference Percentage	Volume Difference [cm <sup>3</sup> ]
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

## New Lesions

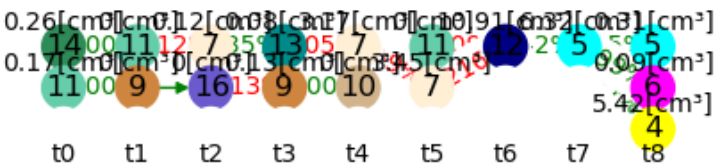
Lesion 9 appeared for the first time in the last scan.

## 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.

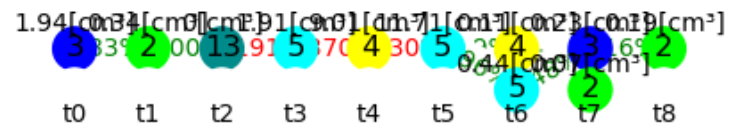
## Lesions appearing throughout several scans

## The History of Lesions 5, 6, 4



Classification of connected component: complex\_p

## The History of Lesion 2



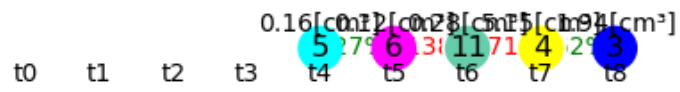
Classification of connected component: split\_p

### The History of Lesion 7



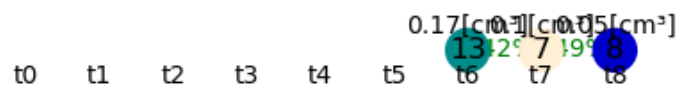
Classification of connected component: linear\_p

### The History of Lesion 3



Classification of connected component: linear\_p

### The History of Lesion 8



Classification of connected component: linear\_p