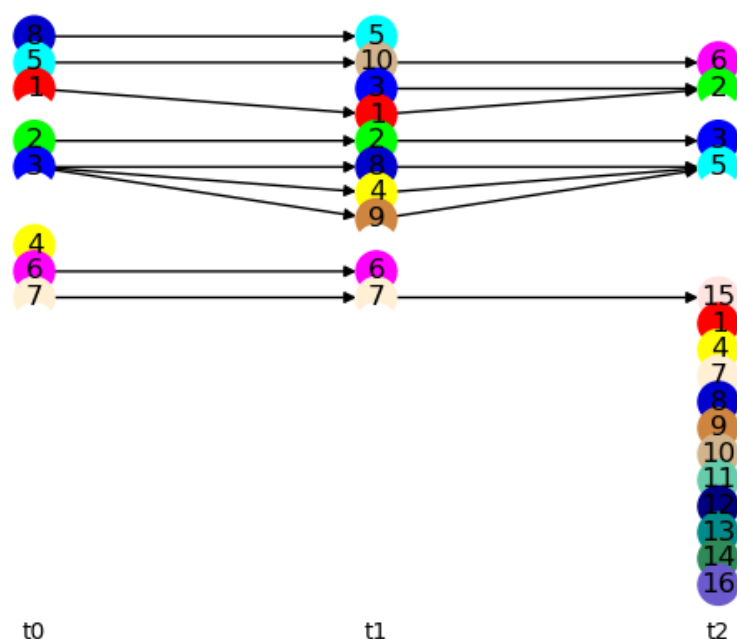


A. S. S. Patient Summary

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	7	0	1
1	0	1	0	0	1	9	0
2	0	2	11	2	0	3	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	386.61	-	-
1	200.98	-48%	-185.63
2	319.73	+59%	+118.75

Individual Lesion Changes

New Lesions

Lesions 1, 4, 7, 8, 9, 10, 11, 12, 13, 14, 16 appeared for the first time in the last scan.

Lesions that have disappeared over time

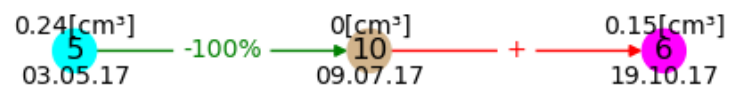
Over time, 3 lesions disappeared.

1 lesion was last identified in t0 scan.

2 lesions were last identified in t1 scan.

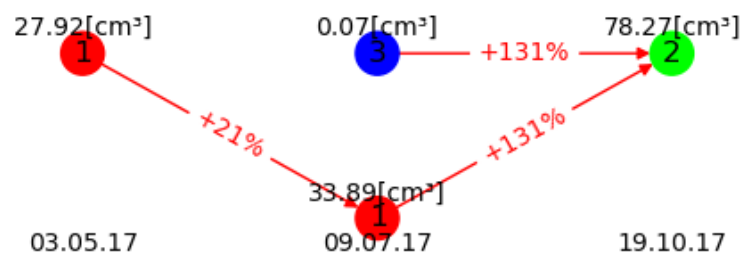
Lesions appearing throughout several scans

The History of Lesion 6



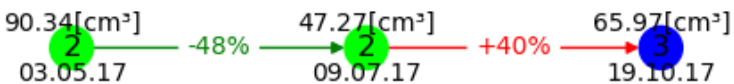
Classification of connected component: linear_p

The History of Lesion 2



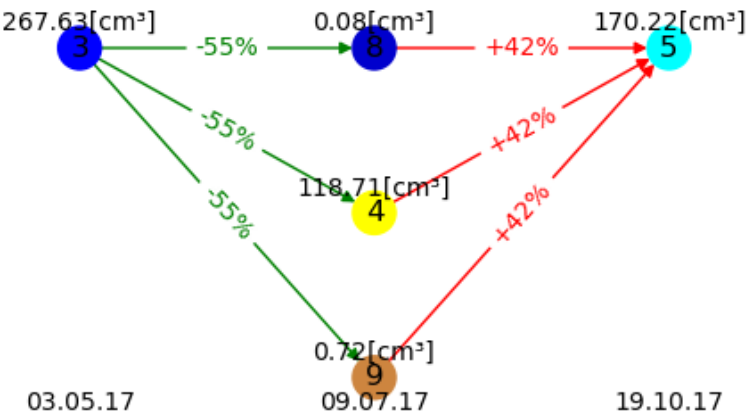
Classification of connected component: merge_p

The History of Lesion 3



Classification of connected component: linear_p

The History of Lesion 5



Classification of connected component: complex_p

The History of Lesion 15

0.11[cm³]		0.03[cm³]		0.5[cm³]
7	-76%	7	+1699%	15
03.05.17		09.07.17		19.10.17

Classification of connected component: linear_p