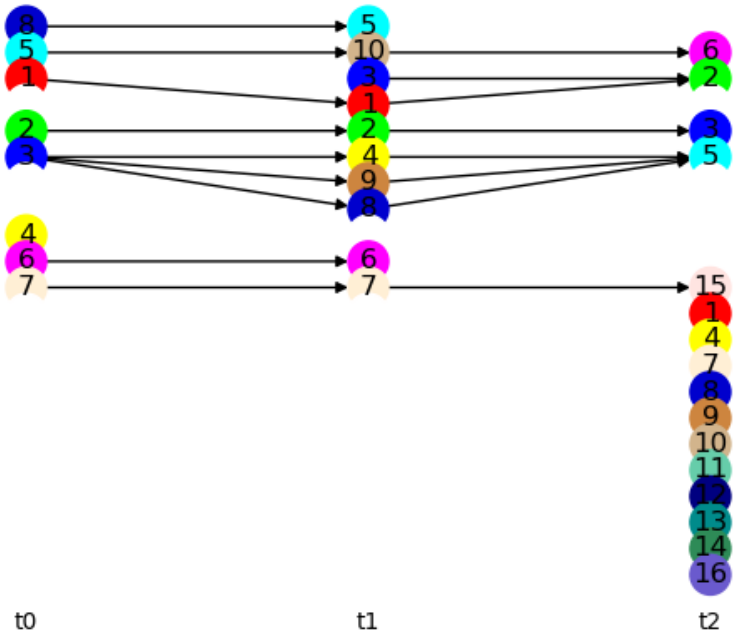
A. S. S. Patient Summary

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 Count According to 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 [cm³]	Volume Difference Percentage	Volume Difference [cm³]
0	386.61	-	-
1	200.98	-48%	-185.63
2	319.73	+59%	+118.75

Individual Lesion Changes

New Lesions

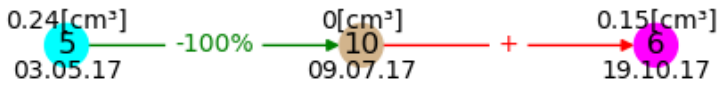
Lesions 1, 4, 7, 8, 9, 10, 11, 12, 13, 14, 16 appeared for the first time in the last scan.

Disappeared Lesions

Over time, 3 lesions disappeared.
1 lesion was last identified in 03.05.17.
2 lesions were last identified in 09.07.17.

Lesions Appearing in Multiple Scans

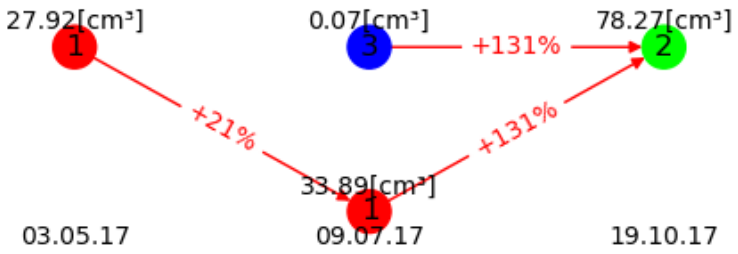
• The History of Lesion 6



Lesion volume has decreased by 21% from previous scan to current scan. Volume consistently decreased over time by 51% from first scan to last scan.

Classification of connected component: linear.

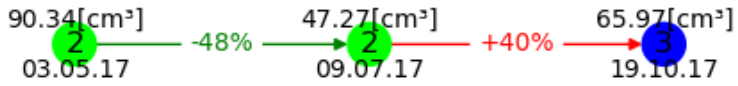
• The History of Lesion 2



Lesion volume has decreased by 66% from previous scan to current scan. Volume consistently decreased over time by 13% from first scan to last scan.

Classification of connected component: merge.

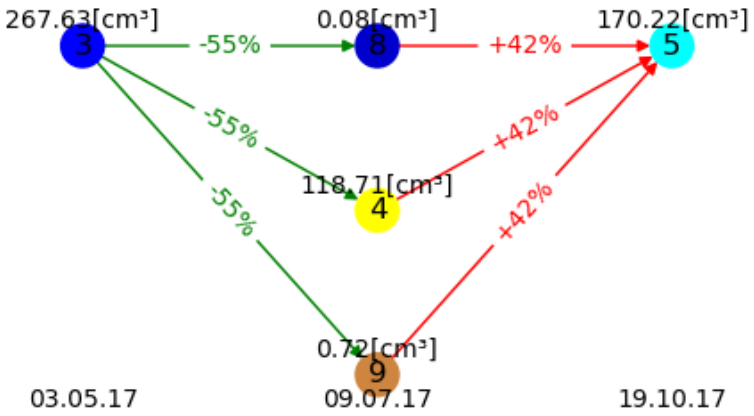
• The History of Lesion 3



Lesion volume has decreased by 98147% from previous scan to current scan. Volume consistently decreased over time by 75% from first scan to last scan.

Classification of connected component: linear.

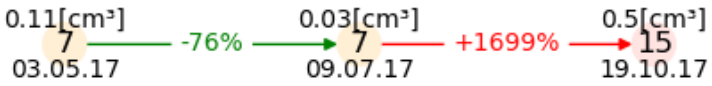
• The History of Lesion 5



Lesion volume has decreased by 176243% from previous scan to current scan. Volume consistently decreased over time by 69895% from first scan to last scan.

Classification of connected component: complex.

• The History of Lesion 15



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

Classification of connected component: linear.