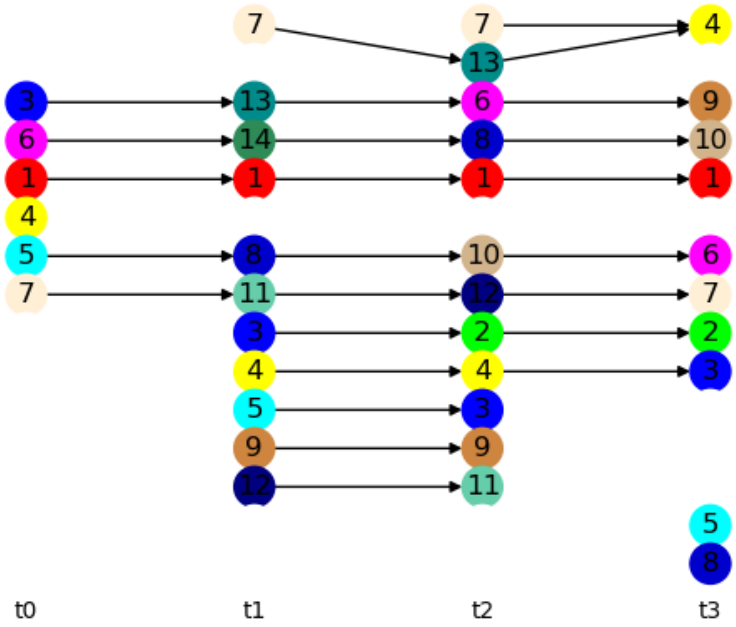
B. B. S. Patient Summary

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	6	0	0
1	0	1	0	0	6	5	0
2	0	0	0	0	1	11	0
3	0	3	2	1	0	7	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	0.4	-	-
1	1.32	+233%	+0.93

2	1.11	-16%	-0.21
3	0.95	-14%	-0.16

Individual Lesion Changes

New Lesions

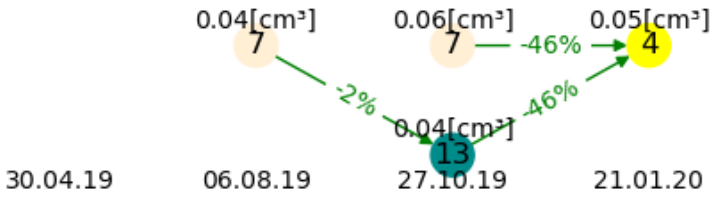
Lesions 5, 8 appeared for the first time in the last scan.

Lesions that have disappeared over time

Over time, 4 lesions disappeared.
1 lesion was last identified in 30.04.19.
0 lesions were last identified in 06.08.19.
3 lesions were last identified in 27.10.19.

Lesions appearing throughout several scans

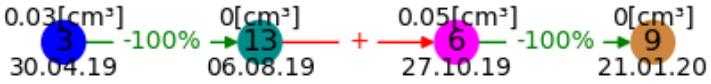
• The History of Lesion 4



Lesion volume has decreased by 31% from previous scan to current scan. Volume shows both increases and decreases over time from first scan to last scan.

Classification of connected component: merge.

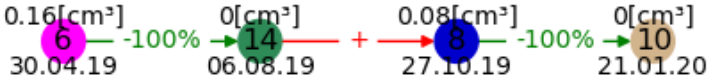
• The History of Lesion 9



Lesion volume has decreased by 182% from previous scan to current scan. Volume consistently increased over time by 182% from first scan to last scan.

Classification of connected component: linear.

• The History of Lesion 10



Lesion volume has decreased by 49% from previous scan to current scan. Volume consistently increased over time by 49% from first scan to last scan.

Classification of connected component: linear.

• The History of Lesion 1

Lesion volume has decreased by 384% 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.

• The History of Lesion 6

Lesion volume has decreased by 147% from previous scan to current scan. Volume consistently decreased over time by 26% from first scan to last scan.

Classification of connected component: linear.

• The History of Lesion 7

Lesion volume has decreased by 85% from previous scan to current scan. Volume consistently increased over time by 253% from first scan to last scan.

Classification of connected component: linear.

• The History of Lesion 2

Lesion volume has decreased by 17% 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.

• The History of Lesion 3

Lesion volume has decreased by 0% 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.