

A. W. Patient Summary

Patient Study Based on Lesion Graph



t0

t1

t2

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	2	0	0
1	0	0	0	0	0	2	0
2	0	0	0	0	0	2	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	12.82	-	-
1	4.52	-65%	-8.3
2	1.6	-65%	-2.92

Individual Lesion Changes

New Lesions

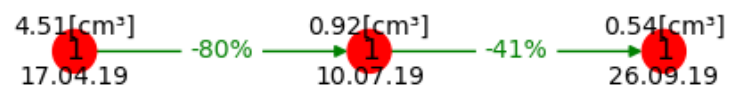
No new lesions had appeared.

Disappeared Lesions

Over time, no lesions disappeared.

Lesions Appearing in Multiple Scans

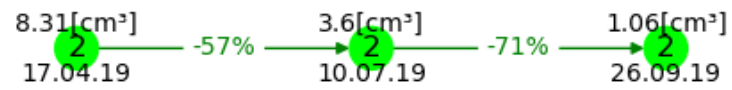
• The History of Lesion 1



Lesion volume has decreased by 41% from previous scan to current scan. Volume consistently decreased over time by 88% from first scan to last scan.

Classification of connected component: linear.

• The History of Lesion 2



Lesion volume has decreased by 71% from previous scan to current scan. Volume consistently decreased over time by 87% from first scan to last scan.

Classification of connected component: linear.