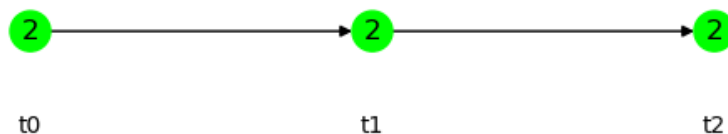


A. W. Patient Summary

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 | 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

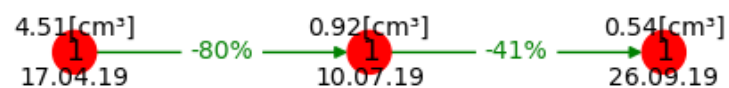
No new lesions had appeared.

Lesions that have disappeared over time

Over time, no lesions disappeared.

Lesions appearing throughout several scans

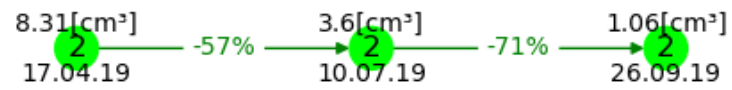
• The History of Lesion 1



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.