Additional file 1: Figure S1 Illustration of the influence of logistic model parameters on curve, and the model fitted to a CKC. From left to right: α defines the asymmetry of the logistic model, τ the steepness of the curve and *k* influences the terminal slope. The regression curve fitted to a given CKC for a malignant (blue) and a benign lesion (green).

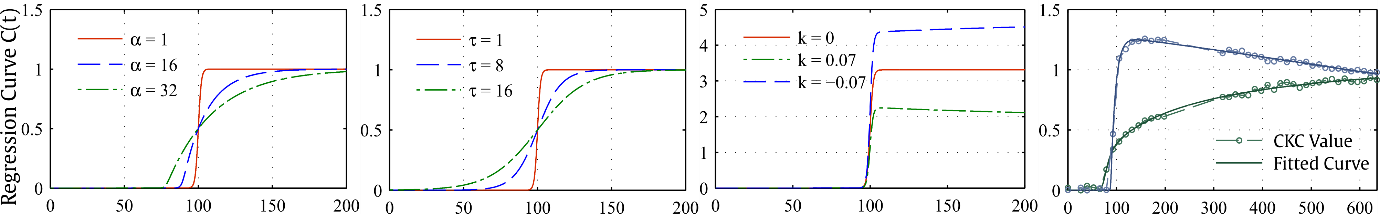


Figure S2 Boxplot of automatic segmentation performance in terms of Dice similarity coefficient (DSC). DWI, diffusion-weighted imaging; GI, Gini Importance; mRMR, minimum-Redundancy-Maximum-Relevance; PET, positron emission tomography; w/o, without

*G:\25 Katja manuscript\Suppl Fig2.tif*

Table S1Definitions of morphologic features.

|  |  |  |
| --- | --- | --- |
| **Morphological feature** | **Definition** | **Note** |
| Number of voxels in the lesion () = Volume of lesion () |  | Number of voxels and volume were the same in this case since a voxel had a volume of 1 mm. |
| Centroid () | , with |
| Maximum radial distance () |  |
| Normalized radial length () | , with |
| Area of enclosing surface () |  |
| Volume Overlap Ratio () |  | Ratio of lesion volume to circumscribing sphere. |
| Elliptic Volume Overlap Ratio () |  | Ratio of lesion volume to inertia ellipsoid. ...ellipsoid radii. The inertia ellipsoid is obtained by PCA of . |
| Discrete Compactness () 52 |  |  |
| Irregularity () | , with | Deviation of lesion surface from a sphere surface with the same volume. |
| Sphericity () |  | Ratio of inscribing sphere radius to circumscribing sphere. |
| NRL mean () |  |  |
| NRL variance () |  |  |
| NRL sphericity () |  |  |