

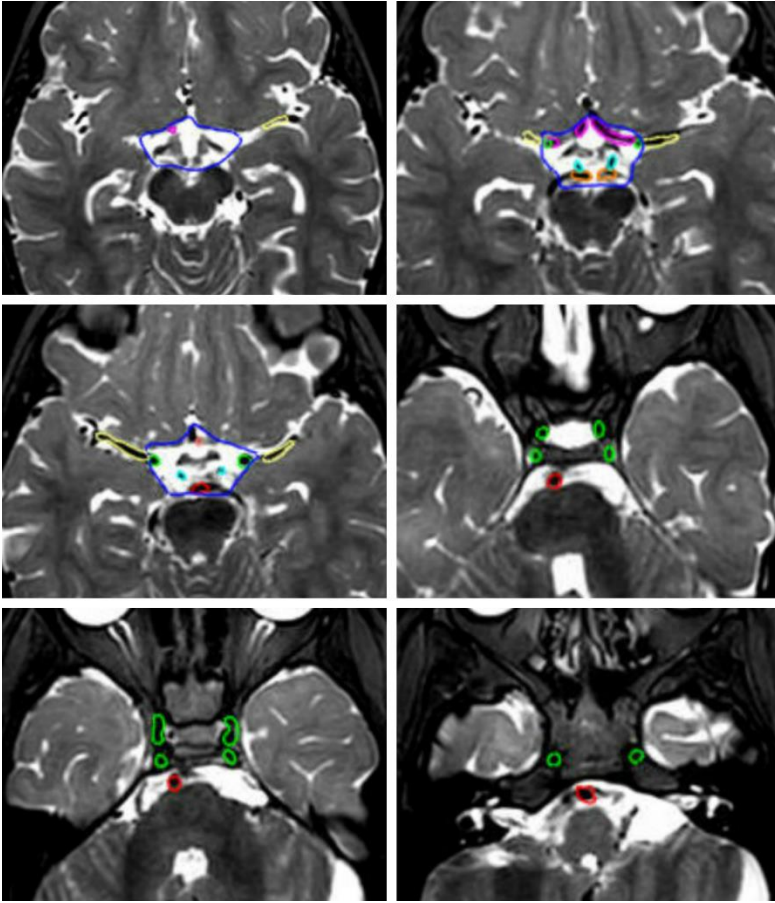
Supplementary material

Supplementary table 1: Comparison of Dmean to the individual arteries for the validation of the delineation atlas. The dose metrics are expressed in percentage of the prescription dose. Abbreviations: L left; R right; ACA anterior communicating artery; AComA anterior cerebral artery L/R; ICA internal cerebral artery L/R; M1 first segment of the middle cerebral artery L/R; PComA posterior communicating artery L/R; PCA posterior cerebral artery L/R; BA basilar artery.

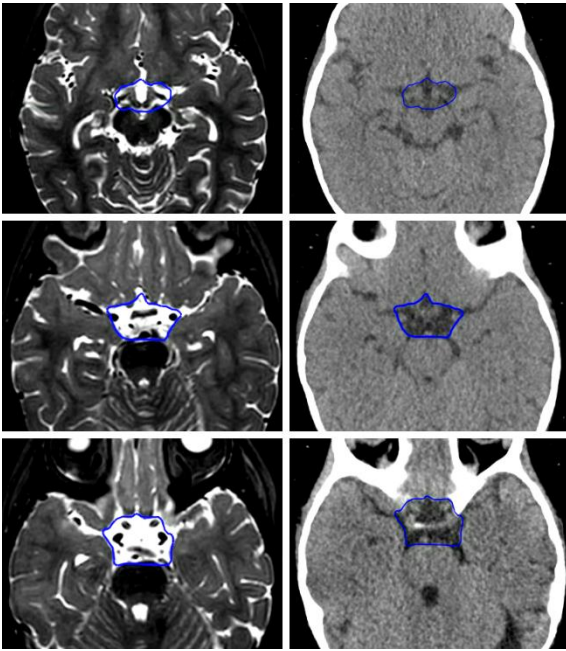
	Observer	AComA	ACA L	ACA R	ICA L	ICA R	M1 L	M1 R	PComA L	PComA R	PCA L	PCA R	BA
Case 1	1	61.1	63	49.9	72	55.9	40.2	14.5	80.4	70.9	83.2	70.2	91.9
	2	61.3	63.4	49.9	77	62.6	32.8	13.6	80.7	70.5	82.2	68.1	91.7
	3	61.6	63.3	49.3	72.1	58.5	37	12.6	80.8	70.8	81.9	69.6	91.5
Case 2	1	1.4	2.3	2.5	2.6	2.2	0.4	0.4	14.9	12.1	39.3	52.3	57.7
	2	1.6	2.3	2.1	2.2	2	0.3	0.5	13.6	13	39	55	57.3
	3	2	2.4	1.9	4.2	3.3	0.2	0.6	13.5	10.3	42.5	50.4	57.3
Case 3	1	0	0	9.1	0	3	0	70	0	2.6	0	3.8	0
	2	0	0	7.7	0	5.5	0	68.8	0	2.2	0	0.4	0
	3	0	0	4.4	0	4.9	0	67.1	0	3.1	0	0.2	0

Supplementary table 2: Comparison of Dmax to the individual arteries for the validation of the delineation atlas. The dose metrics are expressed in percentage of the prescription dose. Abbreviations: L left; R right; ACA anterior communicating artery; AComA anterior cerebral artery L/R; ICA internal cerebral artery L/R; M1 first segment of the middle cerebral artery L/R; PComA posterior communicating artery L/R; PCA posterior cerebral artery L/R; BA basilar artery.

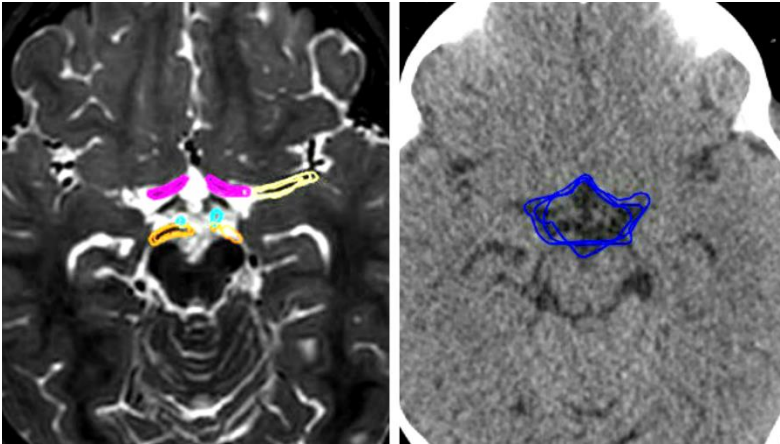
	Observer	AComA	ACA L	ACA R	ICA L	ICA R	M1 L	M1 R	PComA L	PComA R	PCA L	PCA R	BA
Case 1	1	65	68.3	61.8	90.5	78.6	64.9	38.2	86.4	76	88.7	85.2	96.1
	2	65.5	69	60.8	90.9	80.9	60.5	36.3	86.3	75.8	85	82.4	96
	3	65	67.8	59.9	84.9	80.4	65.9	35.6	86.2	75.7	85.5	82.4	95.6
Case 2	1	2.4	3.9	4.9	12	8	1.3	2.4	30.9	42.2	69	71	82.5
	2	2.6	3.9	4.9	10.4	7.5	1.3	1.9	26.1	37.1	67.6	71.1	84.9
	3	3.7	4.1	5.1	15.4	11.1	1.1	2.5	26.1	37.1	74.3	73.8	84.7
Case 3	1	0.1	0	44.2	0.1	40	0	80.2	0	6.3	0	13.1	0
	2	0	0	34.1	0.2	47	0	79.2	0	5.5	0	2.2	0
	3	0	0	30.1	0.1	42.7	0	79.2	0	7.4	0	2.8	0



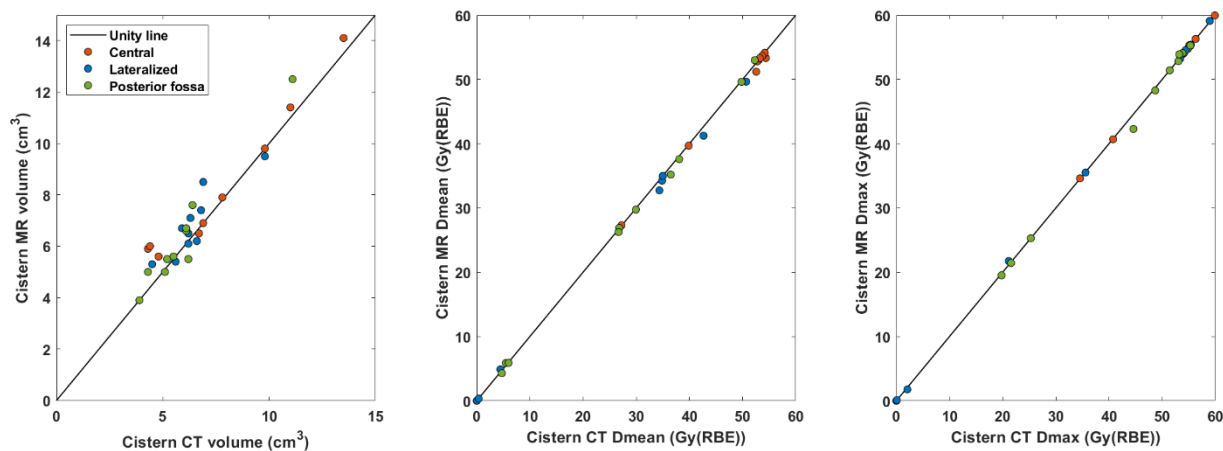
Supplementary Figure 1: Slice-by-slice delineation of the large intracranial vessels. The basilar artery (BA) runs along the ventral part of the brainstem, originating caudally from the union of the two vertebral arteries, while its cranial limit is located approximately at the junction of the midbrain and pons, where the BA divides into the two posterior cerebral arteries (PCA, left and right). Only the first segment (P1) of the PCAs is a part of the CW and delineated, with the lateral limit on each side being the connection point with the posterior communicating arteries (PComA, left and right). PComAs are connecting the PCA to the internal carotid artery (ICA, left and right). The ICA gives rise to the first segment of the anterior cerebral artery (ACA, left and right) cranially, and the middle cerebral artery (MCA, left and right) laterally. The first segment of the MCA, M1, following the upper limit of the temporal lobes, is delineated. The caudal limit of the ICA is defined as the point where the vessels exit their canal in the temporal bone. The carotid siphon is also entirely delineated as part of the ICA. The first segment of the left and right ACA are connected together by the anterior communicating artery (AComA), which completes the CW. The CW is further defined as the Boolean sum of all individual arteries (except M1 left/right) with the caudal limit being the junction between PComA and ICA. Color code: AComA pink; ACA purple; ICA green; M1 yellow; PComA cyan; PCA orange; BA red; SC dark blue.



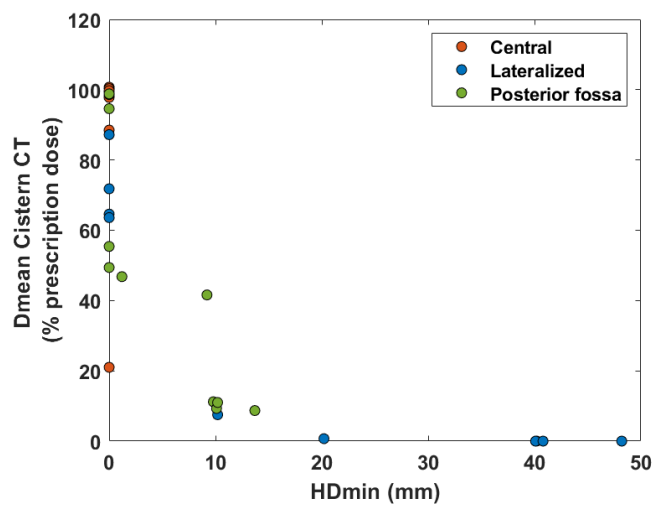
Supplementary Figure 2: Delineation of the SC on MRI- (left) and CT-scan (right).



Supplementary Figure 3: Illustration of the inter-observer differences in the contours of the CW individual arteries (left) and the SC (right). In the right panel, the differences in the inclusion of the interpeduncular cistern is shown. Color code: ACA purple; MCA yellow, PComA cyan; PCA orange; SC dark blue.



Supplementary Figure 4: For the SC delineated on CT- vs. MRI-scan: Agreement between the volume (left), mean dose (Dmean) (center) and maximum dose (Dmax) (right). A good agreement exists when the individual data points fall on the unity line. Each group is represented by a specific color.



Supplementary Figure 5: Dmean to the SC (delineated on CT-scan) as a function of the HDmin between the target volume and SC. Each group is represented by a specific color.