

Using a Machine Learning Approach to Predict Outcomes after Radiosurgery for Cerebral Arteriovenous Malformations

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Features	Type	Units
Age	Continuous	years
Associated aneurysm	Categorical - Binary	yes/no
Deep venous drainage	Categorical - Binary	yes/no
History of Hemorrhage	Categorical - Binary	yes/no
Isodose	Continuous	percentage
Location 1 – frontal	Categorical - Binary	yes/no
Location 2 – temporal	Categorical - Binary	yes/no
Location 3 – parietal	Categorical - Binary	yes/no
Location 4 – occipital	Categorical - Binary	yes/no
Location 5 – thalamic	Categorical - Binary	yes/no
Location 6 – basal ganglia	Categorical - Binary	yes/no
Location 7 – callosal	Categorical - Binary	yes/no
Location 8 – brain stem	Categorical - Binary	yes/no
Location 9 – cerebellum	Categorical - Binary	yes/no
Marginal dose	Continuous	Grey (Gy)
3D surface dose	Continuous	Gy x mm ²
Max dose	Continuous	Grey (Gy)
Maximum diameter	Continuous	millimeter (mm)
Number of isocenters	Ordinal	natural numbers
Prior embolization	Categorical - Binary	yes/no
Sex	Categorical - Binary	female/male
Surgery	Categorical - Binary	yes/no
Volume	Continuous	mm ³