

Fu et al.

**Rapid vessel segmentation and reconstruction of head and neck angiograms using**

**3D convolutional neural network**

Supplementary Table 1. Comparison of image quality between CerebralDoc and

Manual processing

	CerebralDoc	Manual processing	<i>P</i> value
	(Percentiles, P <sub>25</sub> , P <sub>75</sub> )	(Percentiles, P <sub>25</sub> , P <sub>75</sub> )	
VR	(3,3)	(2,3)	<0.001
MIP	(3,3)	(2,2)	<0.001
MPR/CPR	(3,3)	(3,3)	0.617

Mann–Whitney test were used for comparing two groups.

Supplementary Table 2. Comparison with previous work, two categories of methods (rule-based and DL-based) are listed.

Type	Study	Test set patients	Image	AO	Carotid artery	Cerebral vessel
				DSC	DSC	DSC
Rule-based	Olivier Cuisenaire et al. (2009)	28	CTA	-	90.3	-
	Danilo Babin et al. (2013)	4	CTA	-	-	0.82
	Duan et al. (2016)	10	CTA	0.93	-	-
DL	Michelle Livne et al. (2019)	66	MRA	-	-	0.88
	Ours	1826	CTA	0.975		