

Table S1: Characteristics of studies included in the systematic review

First Author	Country	Study Design	Total Sample Size (n.)	Age (years, mean \pm SD or mean and range or mean age and 95% CI)	Study Time	Type of ION	Type of Dissection and occlusion site	Mean time between ION onset and first consultation	Follow-up Duration	Diagnostic investigation used for diagnosis	Stenosis severity
Rivkin et al., 1990	USA	Case Report	1	N/a	N/a	PION	Spontaneous Dissection	24 hours	N/a	Angiography	N/a
			1 (100%)	Female							
			N/a	Right							
Tsai et al., 1997	Taiwan	Case-Report	1	55	N/a	PION	Spontaneous Dissection	3 days	4 weeks	Angiography	N/a
			1 (100%)	Male							
			N/a	Right							

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			Number of Patients with ION (n. and %)	Gender (n. and %)							
			Number of Patients of control groups (n. and %)	Involved Side							
Biousee et al., 1998	France	Case Series	Total: 110 AION: 2 (1.8%) PION: 2 (1.8%)	Patient 1: 33 Patient 2: 41 Patient 3: 51 Patient 4: 51 Patient 1: female Patient 2: male Patient 3: female Patient 4: female Patient 1: right Patient 2: right Patient 3: left Patient 4: right	14 years	AION PION	Patient 1: Spontaneous Dissection Infrapetrous portion Patient 2: Spontaneous Dissection Cervical portion of the right ICA extending up to its supraclinoid segment Patient 3: Spontaneous Dissection Cervical segment extending into the petrous portion of the left ICA Patient 4: Spontaneous Dissection Infrapetrous portion	N/a	N/a	Total Sample: 72 patients: Angiography 38: MRA Patient 1: Angiography Patient 2: Angiography Patient 3: Angiography Patient 4: Angiography	Patient 1: 95% Patient 2: 80% Patient 3: 95% Patient 4: 90%
Biousee et al., 1998	France	Cross-Sectional	Total: 146 AION: 2 (1.25%) PION: 2 (1.25%) N/a	Total: 45.5 (14 to 71) Female: 67 (45.9%) Male: 79 (54.1%) N/a	25 years	AION PION	Traumatic and spontaneous Dissections N/a	N/a	N/a	Total Sample: 77 patients: Angiography 69: MRA	80-95%

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Archer et al., 1998	Australia	Case Report	1 1 (100%) N/a	52 Man Left	N/a	PION	Spontaneous Dissection 2 cm below the skull base	N/a	10 months	CTA and MRA	100%
Kerty, 1998	Norway	Cross-Sectional	Total: 28 PION: 1 (3.5%) N/a	Total: 37.8 (19–65) Female: 10 (35.7%), Male: 18 (63.1%) N/a	5 years	PION	Spontaneous Dissection N/a	N/a	N/a	Angiography: 5 MR; Doppler ultrasonography and MRA: 23	N/a
Babovic et al., 2005	USA	Case Report	1 1 (100%) N/a	43 Female Right (Bilateral CAD)	N/a	AION	Traumatic Dissection N/a	Same day	3 months	MRI and MRA	Bilateral internal carotid arteries, with 50% stenosis on the right side
Koch et al., 2005	USA	Case Report	1 1 (100%) N/a	53 Male Right	N/a	PION	Spontaneous Dissection N/a	24 hours	3 months	Angiography	N/a
Kawabe et al., 2009	Japan	Case Report	1 1 (100%) N/a	73 Male Left	N/a	PION	Spontaneous Dissection 1 cm above the bifurcation	N/a	N/a	Carotid artery Doppler and Angiography	100%

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Lysandropoulos et al., 2010	Switzerland	Case Report	1 1 (100%) N/a	27 Female Right	N/a	PION	Spontaneous Dissection N/a	N/a	6 months	Carotid artery Doppler and CTA	Subocclusive dissection
Anders et al. 2014	USA	Case Report	1 1 (100%) N/a	35 Male Left	N/a	PION	Traumatic Dissection Cavernous segment	Immediate	N/a	CTA	100%
Jah et al., 2019	India	Case Report	1 1 (100%) N/a	55 Male Right	N/a	AION	Spontaneous Dissection N/a	1 month	N/a	Doppler ultrasonography	100%
Zheng et al., 2020	China	Case-Report	1 1 (100%) N/a	44 Female Right	N/a	AION/ PION or a combination of thereof	Spontaneous Dissection N/a	N/a	5 months	CTA and angiography	90%
Lains et al., 2021	USA	Case-report	1 1 (100%) N/a	64 Male Right	N/a	AION	Spontaneous Dissection N/a	4 days	18 months	CTA	100%

Abbreviations: ION: Ischemic Optic Neuropathy; PION: Posterior Ischemic Optic Neuropathy; AION: Anterior Ischemic Optic Neuropathy; Wks.: Weeks, N: number; SD: Standard Deviation; ICA: Internal carotid artery; MRA: Magnetic resonance angiography; CTA: Computed tomography angiography, CI: Confidence interval; N/A: Not applicable; CAD: Carotid artery dissection

