

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
			Number of Patients with ION (n. and %)	Gender (n. and %)							
			Number of Patients of control groups (n. and %)	Involved Side							
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			2 cm above the carotid bifurcation				
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			3 cm above the bifurcation				

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

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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

