



CAROTID WEBS:

An Important Etiology of Devastating Strokes
Especially in Young Women:

How Should they Be Diagnosed and Treated



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FINANCIAL DISCLOSURE



I Have No Financial Relationships to Disclose

Sx Carotid Disease

Severity of Stenosis: $\geq 50\%$

NASCET	Stenosis	Risk Reduction	p
Sx: $> 70\%$	16.5%/2 yrs.	$< .001$	
Sx: 50-69%	10.1%/5 yrs.	$< .05$	

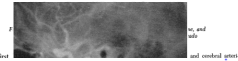
There Is An Exception to Every Rule

Carotid Webs

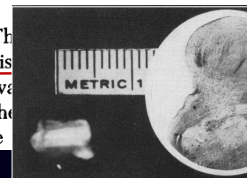


CAROTID WEBS

Fibromuscular Hyperplasia of the Carotid Artery
Causing Positional Cerebral Ischemia



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rarily (Fig. 2A),
primarily.

Submitted for publication September 5, 1967.
Revised manuscript received February 14, 1968.
Accepted for publication February 14, 1968.
Reprint requests to Dr. B. A. Perler, MD, MBA,
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Ann Surg, 1968

Carotid Webs: Descriptive Terms

- Atypical Fibromuscular Dysplasia
- Atypical Fibromuscular Hyperplasia
- Dysplasia
- Septal Fibromuscular Dysplasia
- Septa
- Diaphragms
- Pseudo-Valvular folds
- Webs

Carotid Webs: Demographics



- Variant of Fibromuscular Disease
- Young Patients (Most, 40-50 Yrs; Median, 40.5 Yrs.)
- Female Preponderance (Most series, $> 50\%$)
- Common in African Americans
- Atherosclerotic Risk Factors Uncommon
- Common Etiology of Cryptogenic CVAs

Incidence in Cryptogenic CVAs

4 CASE-CONTROLLED SERIES

- Patients with Cryptogenic CVAs
- < 60 Years Old

Carotid Webs
9.4% to 37%

- *Stroke*, 2016
- *Neurology*, 2017
- *Am J Neuroradiol*, 2017
- *Stroke*, 2017

Carotid Webs: Treatment

Antiplatelet Rx: INEFFECTIVE



3 CASE SERIES

- **Recurrent Events:** 24% - 71%
- **Time to Recurrence:** 1 - 20 (median, 9 - 13) Mos.
- **Dual Antiplatelet Therapy:**
No Better than Monotherapy

- *JNR*, 2015
- *Stroke*, 2014
- *Stroke*, 2017

Carotid Webs: Carotid Endarterectomy

Series: 11
Patients: 21
Years: 1967 - 2017

- No Perioperative Complications
- Median F/U: 8 Mos.
- ➔ **NO RECURRENT EVENTS**

JAMA Neurol, 2019

Carotid Webs: Carotid Stenting

Patients: 24
Mean Age: 47 Yrs.
Female: 58%

CVA: 20 (83%)
TIA: 4 (17%)

RESULTS

CVA: 0
DEATHS: 0

MEDIAN F/U: 12 Mos.

- ➔ **NO RECURRENT EVENTS**

Multicenter

Intervent Neurol, 2018

Carotid Webs: Rx

YEARS: 2016 - 2022
PATIENTS: 52
Women: 71%
AA: 67%
Age: 29-73 (mean, 49 yrs.)

SX:

CVA: 90%
TIA: 10%

STENOSIS < 50%: 96%

TREATMENT:

CEA: 27 (54%)
CAS: 23 (46%)

- ➔ **NO CVAs: Mean F/U: 26 Mos.**

Ochsner Clinic

J Vasc Surg, 2024

SUMMARY

Carotid Webs

- Variant of FMD
- Occurs in Younger Patients
- Female Preponderance
- Anti-Platelet Therapy Not Effective
- Cause of Cryptogenic Strokes
- Rx: CEA or CAS