

# MOSAIC Workshop

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# Introduction

**Currently Research Coordinator for MIPEERS study at WMed**

**To evaluate and decrease pediatric medication errors by Prehospital personnel**

**2016-present**

**Field Clinical Engineer at Angel Medical Systems**

**Worked on a clinical trial for implantable cardiac monitoring device**

**2009-2016**

**Clinical Performance Manager at Life EMS Ambulance**

**1984-2009**

**Paramedic, Dispatcher, Instructor Coordinator, Educator, Manager**

**Very active volunteer for AHA/ASA**

*I have no conflicts of interest to divulge*

# Personal Background

55 years old; 54 when CVA occurred. Post menopausal ~ 5 years

135 pounds, 5' 4"

Very active

Lift weights with personal trainer

(V E R Y S L O W) Runner; have completed several 5ks

Currently box at Title Boxing

Family history = AWFUL

Mom massive CVA ~ 2010. AF. Multiple heart issues. AAA surgery

Dad triple bypass, subsequent stents

All aunts, grandparents also heart, stroke and diabetic hx

# Medical History

BP and cholesterol are excellent

Minor to moderate exercise induced asthma

Advair, Singulair, Allegra

Back pain (thank you EMS career)

Lots of Motrin

GERD, taking Nexium

Minimally invasive open heart surgery 2016 for removal of Left Atrial Myxoma

Incidental finding as part of research study

Benign, non cancerous tumor in L atrium

Placed on ASA that day, cardiology apt and surgery scheduled

Size of golf ball!

Less than 1 year later, completed a 5k (also completed a 5k 2 months prior to diagnosis of myxoma)

*Myxomas need to be removed or else you might have a stroke...*

# Stroke on June 28, 2018

0745 on arrival to meeting at a Fire Department, lost vision in right eye

Lasted ~ 45 minutes and returned

Felt “off” the rest of the day

Hard to describe; slight headache but not severe

Went home, more sx at approximately 5-6 pm

Spilled soda pop which I rarely drink on myself; thought I fell asleep sitting on couch

Legs felt like I was walking in quicksand

Collapsed, fell against wall and plant, mostly paralyzed all over

Thx to my guardian angel, fell with phone in my hand!!!

Extremely slurred and garbled speech

Kept trying to get up and/or crawl to door. Fell several times (ouch)

Upon FD arrival, heard them say “oh, look at that facial droop”

# Pre Hospital and Emergency Department Treatment

EMS arrival...felt better. Stood and pivot to cot with assistance

Non emergency ALS transport to ED.

Joked with medics about completing monthly study online training

A&Ox3 in ED for the most part

ED Dr and myself questioned either TIA or migraine

He discussed CT scan and migraine cocktail; asked if I could get a ride home

Had CT and the treatment plan changed

Dr said I had a very concerning blockage in carotid and head

Said “things are going to start happening very quickly”

Neurology Resident literally came running, out of breath into my room

# Hospital Treatment

Emergent thrombectomy (ouch ouch ouch)

Clot was in my middle cerebral artery

Woke up next morning in ICU

Interventional Radiologist showed me photo of my clot on his iphone

**IT WAS 2" LONG!**

I was told that I was the talk of their office and they had never had a pt have a stroke score of zero in ED and a clot that big with no neuro deficits

Although, OT might disagree after first visit and testing in the ICU

# Final Diagnosis and Disposition

Diagnosed with cryptogenic stroke and dissected internal right carotid artery and had Medtronic LINQ implanted (*PRO TIP*: Do not set up base stations while still medicated!)

Admitted eve of June 28; discharged July 3 afternoon very soon after device implant

Discharged on ASA, Plavix and Lipitor.

Back to work Monday, July 9!

Nervous to drive. Got lost at work looking for I.T.

Also diagnosed with Fibromuscular Dysplasia in both carotids and L vertebral artery



# Fibromuscular Dysplasia

Fibromuscular Dysplasia is a disease that causes one or more arteries in the body to have abnormal cell development in the artery wall. As a result, areas of narrowing (called stenosis), aneurysms, or tears (called dissections) may occur. If narrowing or a tear causes a decrease in blood flow through the artery, symptoms may result. Many people with FMD do not have any symptoms or signs on physical examination and are diagnosed by accident during a radiology scan for another problem.

FMD can be found in any arterial bed in the body. It is most commonly found in the renal arteries and the carotid and vertebral arteries. Less commonly, FMD affects the arteries in the abdomen (supplying the liver, spleen and intestines) and extremities. In more than one-half of people with this disease, there will be evidence of FMD in more than one artery.

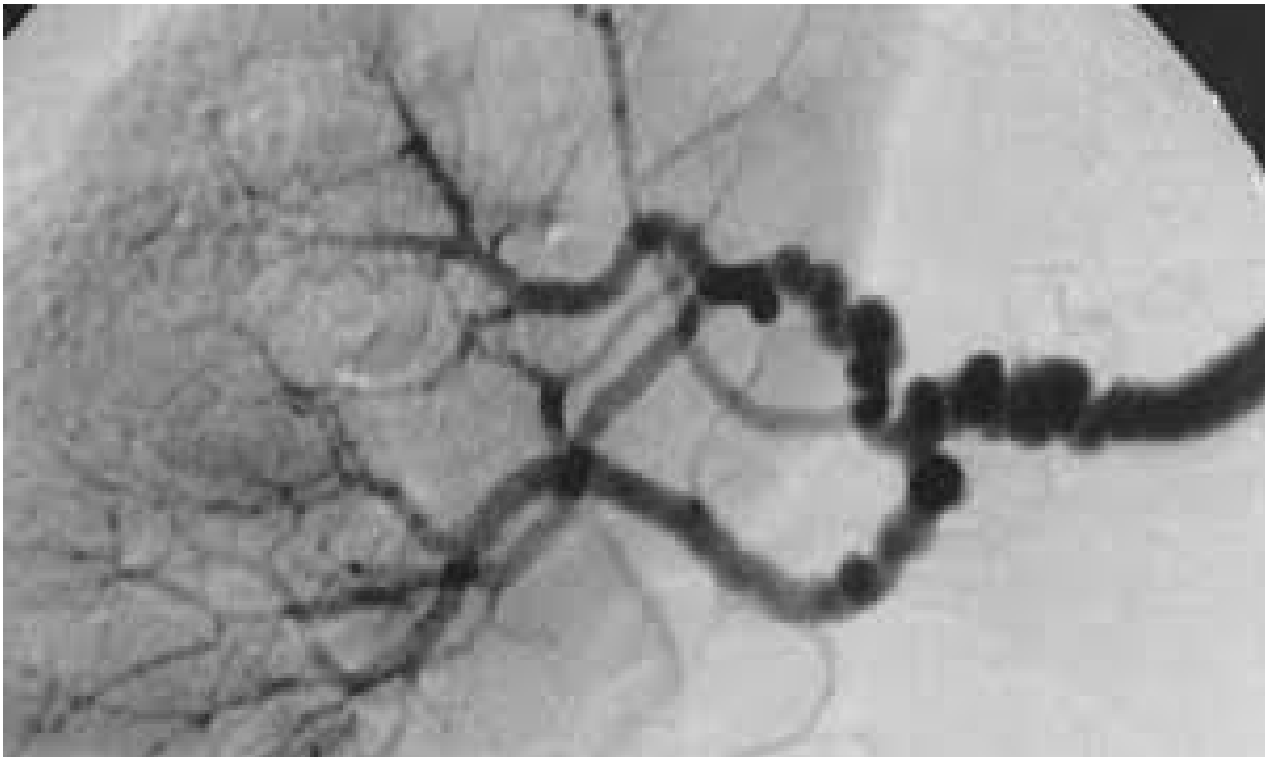
Can also be found in coronary arteries causing spontaneous coronary artery dissection.

Cause unknown; believed to be genetic.

Far more common in women; often diagnosed in middle age.

People with carotid FMD have a higher risk for aneurysms of the arteries in the brain (intracranial aneurysms). Bleeding in the brain (intracranial hemorrhage) may occur if an aneurysm ruptures, and it is important to identify and treat brain aneurysms early to prevent this.

# Potential s/s FMD



## Renal Arteries:

BP > 140/90

Abnormal kidney function

Flank pain from dissection

Kidney failure

## Carotid Arteries:

Bruit

Pulsatile tinnitus

Vertigo/dizzy

Headache

TIA/CVA

Neck pain

Horner's Syndrome

Dissection

# \*Incidental Finding Alert\*

TEE performed prior to device implant

Lambl's excrescence visualized in the ventricular aspect of the aortic valve

LE are rare cardiac structures described as fine, mobile, filiform fronds that typically occur at sites of valve closure, and are believed to result from minor endothelial damage due to valve wear and tear. The differential diagnosis for these excrescences includes fibroelastoma, myxoma, thrombi, vegetations, cardiac neoplasms, and metastases. First described in 1856 by Bohemian physician Vilem Dušan Lambl, many clinicians consider LE to be part of the normal aging process. Since its description, several case reports about LE have been published in the medical literature. The clinical significance of LE remains controversial and the effective treatment of LE has not been established, ranging from DAPT to surgical debridement

Can cause stroke; treatment may be based on if first or second stroke



“People of CVS”





“People of CVS”





## “People of CVS”

Post OHS, July 2016 ☺

# Follow up and ongoing issues

Had follow up with IR and Neurologist with further CT and US testing in September and November 2018

No healing or changes with arteries; still 50% blockage in R internal carotid with intimal dissection flap. Renal US showed FMD and 1.2 cm aneurism on L renal artery

Plavix d/c'd on Dec 28; still on ASA and Lipitor

Restrictions:

20 lb weight limit

No yoga, planks, pushups, lifting over head

No chiropractor ☹️ (saw twice monthly for decades...)

Keep HR < 130 per cardiologist

No skydiving, zip lining, bungee jumping, roller coasters, wave runner, etc.

Some minor BP fluctuations. Check BP often

# Stroke Effects

## Minor brain issues

- Short term memory issues

- Stumble over words

- Trouble eating at times? Food has dropped out of my mouth

- Grip strength and/or dexterity

## Fatigue

- Pressure in neck and head when horizontal

- Neck pain and/or headaches. Pain at site of dissection?

- Can't sleep well on right side – can cause pressure and dizziness

- Fuzzy headed after exercising

## Emotional:

- Fear of another dissection, aneurism and/or CVA

- Being made fun of



**Would I have done anything differently?**



Tracy 1  
Stroke 0

**Victory!!!**

**THANK YOU!**

**Tracy Hover**

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