

VOL. 13, No. 7

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Charles Moore Georgia Richardson Mary Sprifke

UC Davis Research News (Web Site)

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Most of the important things in the world have been accomplished by people who have kept on trying when there seemed to be no help at all.

Dale Carnegie

## DAVIS

## TUESDAY, SEPTEMBER 8, 3:30 – 5:00 p.m.

## Program: Screening of Dr. Jeffrey Ralph "A Review of Peripheral Neuropathy"

Davis Senior Center

646 A Street, Davis, 95616

Call: Mary Sprifke (530) 756-5102 or Retta Gilbert at (530) 747-0186

## WOODLAND

TUESDAY: SEPTEMBER 8, 1:00 - 3:00 p.m.

## Program: Sonya Wells, Pharmacist "Pharmaceutical Intervention in PN"

Woodland Community and Senior Center 2001 East Street, Woodland 95695

Call: Elizabeth Chaudhry (530) 661-3859

## SACRAMENTO

TUESDAY, SEPTEMBER 15 1:30-3:30

**Program: To Be Determined** Northminster Presbyterian Church 3235 Pope Avenue Sacramento, CA 95825

Call: Charles Moore (916) 485-7723

September 2015

## **MEETING RECAPS**

#### DAVIS JUNE NOTES By Mary Sprifke



We reviewed a two-page list entitled "The Medicine Chest" which is a 'work-inprogress' from another PN support group. Comprised of about 68 entries, lots of things that work for some of us are included, from RX to exercise. *PN News* readers will recognize many of the items on the list from inclusion in our past "Toolkit" offerings. We hope to see a final version soon, which we would love to share with our readers. Our round-robin discussion was lively.

#### SACRAMENTO JUNE NOTES By Georgia Richardson

The meeting was opened at 1:30pm by leader Charles Moore. There were 11 in attendance.

Charles introduced the speaker, **Karen Romines** D.C., who spoke on peripheral neuropathy (PN) causes and care. Dr. Romines shared that she had suffered a broken wrist and had been away from her large, busy practice to recuperate.

She presented a power point show that began with pictures of dermatomes of legs and feet, and the nervous system. She talked about circulation also, and the anatomy of the vascular system. Peripheral Arterial Disease (PAD) should be considered when problems with feeling, numbness, cramping, aching, pain, or slow healing wounds present. She passed out a questionnaire titled "Do I Need a Test for PAD?" A vascular test might be in order to determine risk for PAD.

She continued the Power Point presentation with causes of PN including injury, compression, diabetes, toxin exposure, medications, chemotherapy, alcohol abuse, inactivity, vitamin deficiency and idiopathic (unknown causes). Some of the treatments included relieving chronic pressure in hose, shoes that are too tight, prescription medication (which should be monitored more closely), exercise including Yoga, Tai Chi, cessation of smoking (she told us that smokers have a 90% chance of an amputation), avoid alcohol, maintain correct blood sugar levels, and exercise – 150 minutes of cardio weekly.

Foot care is very important she emphasized. Check your feet daily or if difficult to do use a mirror or someone else to check for you. Avoid any sort of infection or activity that might lead to an infection. Treat skin problems including dry, flakey, scaling, or irritated skin. Preferably add lotion, not greasy unguents, to feet right after bathing as it helps to hydrate the skin.

Dr. Romines suggested insoles. They should be flexible and provide good support. Support hose should go over the knee. She cautioned that one should not sleep in support hose. She talked about toenail fungus that many, especially seniors, experience. There seems to be no cure, but it can be managed. Vicks Vapo Rub rubbed on to the feet and toes and/or soaking feet in a solution of 50% Listerine and 50% white vinegar have been helpful. She spoke of vitamins and supplements that have been shown to help. The B vitamins and Alpha Lipoic Acid, as well as fish oil and low dose aspirin help many with PN.

Dr. Romines said if anyone has additional questions, they could call her office at 916-362-5344. She is located at 9121 Folsom Boulevard, Sacramento, CA 95826.

## A note from Charles Moore, leader

New Secretary Needed . . .



The Sacramento PN Support Group is losing our

group secretary, Georgia Richardson, who is moving to Fort Bragg in Mendocino County. The present minutes will be Georgia's last after serving for some dozen years as secretary. We thank Georgia for all her efforts and wish her happiness in Fort Bragg.

The group will need to find a new secretary to report the minutes and to make announcements each month. The new secretary will need to be able to use e-mail and to attend most meetings of the PN Support Group. It may be some time before you receive your next PN Minutes, depending on our success in finding a new secretary.

If you need to reach me, call me at 916-485-7723



Don't measure yourself by what you have accomplished, but by what you should have accomplished with your ability. -- *John Wooden* 

Promise me you'll always remember: You're braver than you believe, and stronger than you seem, and smarter than you think. -- *A. A. Milne* 

# It's To Laugh . . .

A police officer called in to his supervisor on the radio:

"I've just responded to the report of shots fired at 123 Maple Street.

An elderly woman just shot her husband for stepping on the floor she just mopped."

"Did you make an arrest?" "Not yet. The floor is still wet."

Two Eskimos sitting in a kayak were chilly, so they lit a fire in the craft. Unsurprisingly it sank, proving once again that you can't have your kayak and heat it too.

A group of chess enthusiasts checked into a hotel and were standing in the lobby discussing their recent tournament victories. After about an hour, the manager came out of the office and asked them to disperse. "But why," they asked, as they moved off. "Because," he said, "I can't stand chess-nuts boasting in an open foyer."



Mahatma Gandhi, as you know, walked barefoot most of the time, which produced an impressive set of calluses on his feet. He also ate very little, which made him rather frail and with his odd diet, he suffered from bad breath. This made him a super calloused fragile mystic hexed by halitosis.

A jumper cable walks into a bar. The bartender says, "I'll serve you, but don't start anything."

A woman has twins and gives them up for adoption. One of them goes to a family in Egypt and is named "Ahmal." The other goes to a family in Spain; they name him "Juan." Years later, Juan sends a picture of himself to his birth mother. Upon receiving the picture, she tells her husband that she wishes she also had a picture of Ahmal. Her husband responds, "They're twins! If you've seen Juan, you've seen Ahmal."



## NOTES FROM THE ANNUAL WESTERN NEUROPATHY ASSOCIATION MEETING

APRIL 22, 2015 by Mary Sprifke

The keynote speaker was Dr. Kevin Sawchuk, a Neurologist with Kaiser in Walnut Creek. His topic was *Neuropathy: Anatomy, Clinical Features and Taking Control.* 

**Dr. Sawchuk** noted that the causes for PN are many and are often unknown. Two common factors are aging and medications. He began with a quick overview of PN. Large fibers provide rapid feedback to the brain, at about 120 mps, while small fibers are slower, at about 40 mps. A peripheral nerve is about 3-4 feet long and is covered with a myelin sheath that may become damaged by lots of things. The nerve needs protein for its full length and many types of neuropathy are length dependent. It carries lots of messages, Schwann cells, axon as well as the sheath. Think of a fiber optic bundle with a cover around it as an example.

Problems are numbress to temperature or pain, or to vibration (large fibers are involved) and balance.

Weakness, motor or sensory, is related to small fibers that present as pain, electric shock, itching or constant burning. Other nerve systems work automatically (breathing, heart beating, blood pressure, gastro-intestinal tract and bowel/bladder function. These are called the autonomic nerve systems.

#### **Typical Patterns of Nerve Damage:**

1. Mononeuropathy –a single nerve (such as carpal tunnel) is damaged due to compression.

- Polyneuropathy Involves the distal, or longest nerves first and is length dependent. Once numbness in the legs rises above the knees, the arms and hands generally follow.
- 3. Mononeuritis is a multiplex pattern associated with Lupis and other diseases.
- Radiculopathy leads to bulging disks and thus compression. Numbness is rare in the hands. An MRI is the first appropriate test. Mindful relaxation my bring relief.

5. Plexopathy – symptoms are sudden, with side-to-side rapid movement.

In Carpal Tunnel compression, the thumb, first middle finger and half of the fourth finger have



early pain; there is weakness with buttoning

and atrophy to the base of the palm. Use splints first, with surgery later. Surgery is very effective. With ulnar neuropathy the

inside of the hand, the baby finger and two medial fingers and elbow may be painful. Avoid flexing and use a pillow.

#### **Getting Help**

Primary Care doctors should have knowledge for basic evaluation. Patients need to give information and observations about when and where all symptoms appear, including weight loss. Giving an excellent history is to your advantage. Anything out of the ordinary, e.g., numbness locations higher in the body could involve the brain; are there any atypical patterns? Rapid changes in symptoms between hands and legs may involve the spinal cord. Stomach stapling, alcohol use, toxins, Vitamin V6 in high doses and calorie/nutrition as well as medications can cause PN.

A neurologist uses exam pathways to guide a diagnosis: if motor sensation is involved, are they large or small fibers? Is there proximal weakness? Common polyneuropathies are distal sensory polyneuropathies and are very gradual... idiopathic neuropathy. Causes are diabetes, alcohol use, some vitamins. Not so common are amyloidosis, medications (chemotherapy, colchicine and nitrofurantion). Sciatica (Radiculopathy) usually involves one leg, with a pattern of L 2,3,4 or S1, 2 leading to inflammation, infection or compression.

#### Lab Tests

Often used are fasting blood sugar, HgbA1C%, B12 (monitor if low), thyroid, SIEP, and

#### thiamine.

#### **Other Tests**

A Nerve Conduction Velocity test (NCV) combined with an EMG (Electromyography) test is good for many neuropathies, but not for most common problems. Also, the test does not show sensory nerves. A TSH test for low thyroid.

#### **Idiopathic Neuropathy**

Five percent of folks over 60 have this diagnosis. It develops over five-ten years, and usually arrests at some time. It may or may not be painful, and usually progression stops at mid-shin. There is not much disability.

#### Polyneuropathy Treatment and Management

First treat the underlying disease; second control pain. RX's include Nortriptyline/Venafaxine; Gabapentin/Pregabalin; Capsaicin 75%;

Opioids. Don't overlook CTS as an additional cause. Good foot care, cushioning, form-fitting socks and shoes with roomy toe box help a lot. If both hands and feet are numb, there is likely something other than just PN involved.

#### When To See a Neurologist . . .

If there is a rapid tempo of symptom changes (e.g., toes to ankles in six months), or foot drop, or asymmetry or difficulty getting

up from the chair. Weird rashes, fevers, or chills can indicate more serious issues.

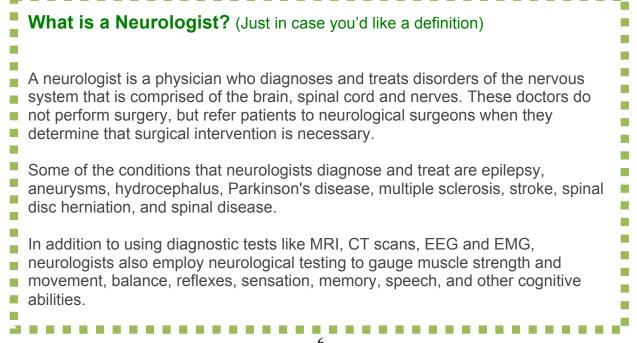
**Note:** the Veteran's Administration thinks it is possible that Agent Orange could cause PN. However, studies are not conclusive.

#### Recommendations

Long-term relief is possible with good posture! Exercise and increase strength in the core muscles. Do light balance exercises at each meeting. Water-based exercise is good for foot pain or balance problems. Maintain your range of motion, keep your heart and brain active and seek **healthy** stress. Weight-bearing exercise is important to train other parts of the body to compensate (e.g., stand on one foot). Use eyes, hands-sensation to increase proprioception (where the body is in space). Alpha Lipoic Acid (600 mg) per day helps with PN pain.

#### Summary

- Neuropathy can be complex and difficult to diagnose
- Distal Sensory Motor Polyneuropathies are very common
- Doctors use a standard workup
- o Get treatment for pain
- Idiopathic cases are very common
- Consider unusual symptoms as 'red flags'



## From the UC Davis news Web Site

http://news.ucdavis.edu/search/news\_detail.lasso?id=11258

## UC Davis researchers find key mechanism that causes neuropathic pain

Scientists at the University of California, Davis, have identified a key mechanism in neuropathic pain. The discovery could eventually benefit millions of patients with chronic pain from trauma, diabetes, shingles, multiple sclerosis or other conditions that cause nerve damage.

A biological process called **endoplasmic reticulum stress, or ER stress**, is the significant driver of neuropathic pain, said lead researchers Bora Inceoglu of the UC Davis Department of Entomology and Nematology and UC Davis Comprehensive Cancer Center, and Ahmed Bettaieb, Department of Nutrition. **The work is published July 6 in the journal** <u>Proceedings of the National Academy of</u> <u>Sciences</u>.

"This is a fundamental discovery that opens new ways to control chronic pain," said co-author Bruce Hammock, distinguished professor at the UC Davis Department of Entomology and Nematology and the UC Davis Comprehensive Cancer Center. "We can now specifically search for agents to control ER stress and its downstream pathways," Hammock said. "This search is already underway in a number of laboratories working on cancer and other diseases."

Working with Professor Fawaz Haj of the UC Davis nutrition department, Bettaieb found that key molecular signatures associated with diabetes and diabetic pain were linked to ER stress. Neuropathic pain is a common consequence of both Type 1 and Type 2



diabetes, affecting up to 70 percent of patients.

Inceoglu, working in Hammock's laboratory, showed that neuropathic pain could be initiated by compounds that cause ER stress and reversed by agents that block

it. The researchers had previously shown that a class of natural bioactive lipids has powerful analgesic effects in the body. These analgesic lipids are broken down in the body by an enzyme, soluble epoxide hydrolase. The team was able to show that blocking soluble epoxide hydrolase blocks ER stress and associated neuropathic pain.

The work sheds new light onto at least one biological process that mediates neuropathic pain, Inceoglu said. With this knowledge, researchers can now test ER-stress blocking drugs in the clinic, and carry out fundamental research on how different types of pain grouped under the name "neuropathic" differ from each other and respond to new drugs.

The study provides convincing evidence for a novel concept as to what causes neuropathic pain said John Imig, professor of pharmacology and toxicology at the Medical College of Wisconsin, Milwaukee, who was not involved in the study. The work provides new opportunities for drugs or drug combinations to treat chronic pain, he said.

Additional authors on the paper are Kin Sing Stephen Lee and Carlos Trindade da Silva, both at the UC Davis Department of Entomology and Nematology and the UC Davis Comprehensive Cancer Center.

The research was supported by grants from the National Institute of Environmental Health Sciences and NIEHS Superfund Basic Research Program grant, National Institutes of Health, the National Institute of Arthritis and Musculoskeletal and Skin Disease.

## **UPCOMING MEETINGS**

### Davis

2<sup>nd</sup> Tuesday, October 13, 3:30-5:00 (Mary Sprifke (530-756-5102) Davis Senior Center 246 A Street, Davis

## Sacramento

**3<sup>rd</sup> Tuesday, October 20, 1:30-3:00** (Charles Moore 916-485-7723) Northminster Presbyterian Church 3235 Pope Avenue, Sacramento

## Woodland

2<sup>nd</sup> Tuesday, October 13,1:00-3:00 (Elizabeth Chaudhry (530-661-3859) Woodland Community and Senior Center 2001 East Street, Woodland

#### **RESOURCES:**

- 1. Norman Latov M.D., Ph.D. Peripheral Neuropathy: When the Numbness, Weakness and Pain Won't Stop
- 2. Harry J. Gould, III, M.D., and Ph.D. Understanding Pain: What It Is, Why it Happens and How It's Managed
- 3. Alexander McLellan N.D. and Marc Spitz D.P.M. The Numb Foot Book
- 4. Mims Cushing & Norman Latov, MD You CAN Cope With Peripheral Neuropathy 365 Days a Year
- 5. John Senneff Numb Toes and Aching Soles: Coping with Peripheral Neuropathy
- 6.John Senneff Numb Toes and Other Woes: More of Peripheral Neuropathy
- 7. John Senneff Nutrients for Neuropathy: How to use natural supplements to treat the severe pain of PN
  The Foundation for Peripheral Neuropathy- www.foundationforpn.org (a national organization)
- Western Neuropathy Association (WNA) (formerly PCNA) www.pnhelp.org or toll-free (877) 662-6298
- www.neuropathyjournal.org
- www.neuropathysupportnetwork.org

The mission of the Yolo Neuropathy Groups is to ensure that through information, empowerment and mutual support, all may have hope and that no one faces their peripheral neuropathy alone.

To send PN News to others or if you no longer wish to receive this newsletter, please contact (530) 756-5102.

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