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WESTERN NEUROPATHY ASSOCIATION

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Neuropathy Hope

Hope through caring, support, research, education, and empowerment
A newsletter for members of Western Neuropathy Association (WNA)

ALTERNATIVE TREATMENT OF NEUROPATHIC PAIN: NMDA INHIBITION LITERATURE REVIEW

By William B. Donovan, MD

INTRODUCTION

Recently I have been reviewing the literature of treatment uncommonly used to control neuropathic pain of which peripheral neuropathy pain (PN) is a type. There is a rather technical article that reviews the various classes of chemical compounds yielding effective new analgesics. Recent research is documented in the following areas: serotonin/norepinephrine reuptake inhibitors, opioid receptor agonists, cox inhibitors, sodium and calcium channel blockers, topical capsaicin, P 38 kinase inhibitors, alpha adrenoreceptor agonists, and NMDA inhibitors. 124565006

We will limit our inquiry to those chemical agents that block the N-methyl-D-aspartate (NMDA) receptors. There is an optimistic Mayo review of the use of Ketamine, an NMDA antagonist originally used as an anesthetic, that is now used as an analgesic for the management of refractory neuropathic pain, available in oral, intravenous, subcutaneous, and topical forms. 22500483

Twenty-eight studies of NMDA receptor antagonists for the treatment of neuropathic pain including complex regional pain syndrome, post herpetic neuralgia and postamputation pain were reviewed. Oral memantine was ineffective for all groups and intravenous ketamine was effective only in postamputation pain. 21044263

KETAMINE

A small study reported on the non-randomized, uncontrolled treatment of 16 post-herpetic neuralgia patients with the addition of 5mg/ml ketamine gel topically, with reduction in pain levels from severe to either moderate or mild. 12707455

Another study of topical ketamine ointment (0.25%-1.5%) reported local anesthetic effect in the early dystrophic stage of complex regional pain syndrome. Effect is attributed to the drug's

blockade of the NMDA receptor. 12373705

Another positive study involved 20 patients with posttraumatic complex regional pain syndrome, thought to be a form of peripheral neuropathy. The application of 10% racemic ketamine in pluronic lecithin organogel inhibited allodynia (light brushing producing intense pain) in these exquisitely sensitive patients. 19703730

An early article from Hahnemann School of Medicine reported five cases of neuropathic pain responding within five minutes following the topical application of 10% ketamine gel, with a 53-100% reduction in NAS pain scores, without significant side effects. 15101968

A single case report described the progressive addition of topical amitriptyline 5% cream, 10% ketamine cream, and DMSO 50% three times a day with reduction of pain from 26/45 to 6/25 on the McGill Pain Questionnaire, 22028723

DEXTROMETHORPHAN

There were four articles that discussed dextromethorphan (DM). the common antitussant, found in over-the-counter cough medicines, which is also a NMDA inhibitor, A University of Chicago dose escalation study of dextromethorphan (DM) 45mg/ quinidine 30mg one to four daily resulted in significant pain relief (p=0.001 – probability of chance result less than 0.1%). Adverse events occurred as follows: nausea 27.8%, dizziness 25.0% and headache 25.0%. Quinidine is a cardiac drug used to control arrhythmias and incidentally can be used to increase blood levels of DM. 17157116

The second article discussed a novel combination drug, Nuedexta®, which contains the NMDA (N-methyl-D-Aspartate) antagonist, dextromethorphan (DM) and quinidine, a cytochrome p450 2D6 enzyme inhibitor that effectively prevents the metabolism of DM,

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Please contact your group leader or check your local paper to find out about the topic/speaker for the upcoming meeting.

Bev Anderson Editor

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Roster of Our WNA Information and Support Groups

CALIFORNIA

Alturas

For information, call: Bev Anderson (877) 622-6298

Antioch-Brentwood

3rd Wednesday, 2 PM- odd numbered months Antioch-Kaiser AMC-1H2 (from hospital lobby) Marty Price (925) 626-7988

Auburn

1st Monday, 11 AM Woodside Village MH Park 12155 Luther Road Sharlene McCord (530) 878-8392

Bakersfield

For information, call Bev Anderson 877-622-6298

Berkeley-Oakland

3rd Wed., 3-4 PM North Berkeley Senior Center 1901 Hearst Ave. Kathleen Nagel (510) 653-8625

Carmichael - Eskaton

2nd Tuesday, 1:30 PM Eskaton, 3939 Walnut Ave. Karen Robison (916) 972-1632 Call Karen before coming as it is a gated community and sometimes the day/time changes. She welcomes newcomers!

Carmichael - Atria

3rd Tuesday, 3:30 PM Atria - Carmichael Oaks 8350 Fair Oaks Boulevard Tanysha (916) 944-2323 Community members welcome

Castro Valley

2nd Wednesday, 1:30 PM First Presbyterian Church 2490 Grove Way (next to Trader Joe) Joy Rotz (510) 842-8440

Clearlake

For information, call Bev Anderson (877) 622-6298

Concord

3rd Thursday, 1:30 PM First Christian Church 3039 Willow Pass Road Wayne Korsinen (925)685-0953

Costa Mesa

3rd Wednesday, 10:00 AM Call Martha Woodside 949-573-0056 for the location

Crescent City

For information, call: Bev Anderson (877) 622-6298

Davis

2nd Tuesday, 3:30-5:00 PM Davis Senior Center 646 A Street Mary Sprifke (530) 756-5102 **Elk Grove**

2nd Tuesday, 1 PM Elk Grove Senior Center 8830 Sharkey Avenue Roger White (916) 686-4719

Eureka

For information, call: Earlene (707) 496-3625

Folsom

1st Thursday, 12:30 PM
Berger Rehabilitation
1301 E. Bidwell St., Folsom
Bev Anderson (877) 622-6298
http://folsom.neuropathysupportgroup.org/

Fort Bragg

For information, call: Bev Anderson ((707) 964-3327

Fresno

3rd Tuesday, 11:00 AM Denny's Restaurant 1110 East Shaw Bonnie Zimmerman (559) 313-6140

<u>Garberville</u>

For information, call: Bev Anderson (877) 622-6298

Grass Valley

2nd Monday, 1:30 PM GV United Methodist Church 236 S. Church Street Bev Anderson 877-622-6298

<u>Jackson</u>

For information, call Bev Anderson (877) 622-6298

Lakeport

Meeting day and time, call Mito. Lakeport Senior Center 507 Konocti Ave. Mito Shiraki (707) 245-7605

<u>Lincoln</u>

For information, call: Bev Anderson (877) 622-6298

Livermore

4th Tuesday, 10 AM Heritage Estates 900 E. Stanley Blvd. Lee Parlett (925) 292-9280

<u>Madera</u>

For information, call Bev Anderson (877) 622-6298

<u>Merced</u>

2nd Thursday, 1 PM Central Presbyterian Church 1920 Canal Street (The Hoffmeiser Center across the street from the church) Larry Frice (209) 358-2045

<u>Modesto</u>

3rd Monday, 10:30 AM Trinity United Presbyterian Church 1600 Carver Rd., Rm. 503 Ray (209) 634-4373 **Monterey**

3rd Wed.,10:30 AM-odd numbered months First Presbyterian Church 501 El Dorado Street Dr. William Donovan (831) 625-3407

Napa

1st Thursday, 2 PM Napa Senior Center 1500 Jefferson Street Ron Patrick (707) 257-2343 bonjournapa@hotmail.com

Oxnard

For information, call: Bev Anderson (877) 622-6298

Placerville

For information, call Bev Anderson (877) 622-6298

Quincy

1st Thursday, 1 PM Our Savior Lutheran Church 298 High St. Stacey Harrison (530) 283-3702

Redding

For information, call: Tiger Michiels (530) 246-4933

Redwood City

4th Tuesday, 1 PM Sequoia Hospital Health and Wellness Center 749 Brewster Avenue Danielle LaFlash (415) 297-1815

Roseville

2nd Wednesday, 1PM - odd numbered months Sierra Point Sr. Res. 5161 Foothills Blvd. Stan Pashote (916) 409-5747

Sacramento

3rd Tuesday, 1:30 PM Northminster Presby. Church 3235 Pope Street Charles Moore (916) 485-7723 http://sacramento.neuropathysupportgroup.org/

Salinas

Contact Bill Donovan (831) 625-3407

San Francisco

4th Thursday, 10 AM UC-San Francisco Med Ctr. 400 Parnassus Avenue Amb. Care Ctr. 8th Flr., Rm A888 Y-Nhy (e nee) Duong Nhy-y.duong@ucsf.edu

San Jose

3rd Saturday, 10:30 AM O'Conner Hospital 2105 Forest Avenue SJ DePaul Conf. Rm. Danielle LaFlash (415) 297-1815

San Rafael

3rd Wednesday, 1 PM Lutheran Church of the Resurrection 1100 Las Galinas Avenue Scott Stokes (415) 246-9156

President's Message

By Bev Anderson

HAPPY NEW YEAR! I'm trusting that 2017 will be a peaceful and prosperous year with good health for all. Let's also look forward to more help for people with neuropathy and less false claims for treatments meant to be financially rewarding to the proponent.

Thanks to the leadership of our Board of Directors. You can see their names listed in the margin of page 2. They are all actively involved. It is an all-volunteer, working Board. Thanks to Lindsay and the others at our office site that help us, too.

Thanks to all our support group leaders and leadership teams as well as all those who encourage them by coming to meetings.

Thanks to every one of you for the great help during 2016. Everyone who paid dues as well as those that sent in a donation, too, made it possible for the Western Neuropathy Association to continue functioning and going forward with some new ideas and programs.

This issue of Neuropathy Hope has articles about some new approaches to pain relief. The lead article is by William B. Donovan, MD who writes the monthly research column (PN Review) and also is leader of the Monterey Neuropathy Support Group. This is an article you can share with your doctor. There are many approaches to pain relief available. It is hard to know everything about what can help neuropathic pain. You and your doctor are a team to find what helps you. Also included is the article on Low-Dose Naltrexone. Your doctor can pull up that article on the internet as it is guite detailed.

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WNA Information and Support Groups - continued from page 2

Santa Barbara

4th Saturday, 10AM - odd numbered months The First Methodist Church Garden & Anapamu Shirley Hopper (805) 689-5939

<u>Santa Cruz</u> 3rd Wednesday, 1PM- odd numbered months Trinity Presbyterian Church 420 Melrose Avenue For information call Mary Ann Leer (831) 477-1239

Santa Maria

For information, call Bev Anderson (877) 622- 6298 or Mary (805) 344-6845

Santa Rosa

1st Wednesday, 10:30 AM Meeting on Dec. 7 Santa Rosa Senior Center 704 Bennett Valley Road Larry Metzger (707) 541-6776

Sonoma

For information, call Bev Anderson (877) 622-6298

Sonora

For information, call Bev Anderson (877) 622-6298

Stockton

For information, call Bev Anderson (877) 622-6298

Susanville

For information, call: Bev Anderson (877) 622-6298

Thousand Oaks Region

For information, call Bev Anderson (877) 622-62988 Truckee

For information, call: Bev Anderson (877) 622-6298

Tulare-Visalia

For information, call Bev Anderson (877) 622-6298

Turlock

3rd Monday, 1 PM- odd numbered months Covenant Village Adm. Bldg. Classroom 2125 N. Olive St.

Joanne Waters (209) 634-0683

Ukiah

Last Tuesday, 5:30 PM Next meeting, Sept. 27 North Coast Opportunities (NCO) 413 N. State St. Carole Hester (707) 972-2795

Walnut Creek

4th Friday, 10 AM Rossmoor, Hillside Clubhouse Vista Room Karen Hewitt (925) 932-2248

West Sacramento

No meeting until new leader is found Sandra Vinson (916) 372-6093 slvins11@gmail.com

Woodland

For information, call Bev Anderson (877) 622-6298

Yreka

For information, call Bev Anderson (877) 622-6298 Yuba City-Marysville

For information, call Bev Anderson (877) 622-6298

NEVADA

Reno-Sparks

For information, call Bev Anderson (877) 622-6298

OREGON

Brookings

For information, call Robert Levine (541) 469-4075

Grants Pass

3rd Wednesday, 2:00 PM Club Northwest 2160 N.W. Vine St. Carol Smith (541) 955-4995 www.grantspass.neuropathysupportgroup.org

Medford

For information, call Bev Anderson (877) 622-62988

Portland

For information, call Bev Anderson (877) 622-6298

Salem

For information, call Bev Anderson (877) 622-6298



If the number is not in your area, call the one listed and ask for the right number.

Medicare

www.Medicare.gov

The Affordable **Health Care Act**

For current information go to www.HealthCare.gov

HICAP Health Insurance Counseling

for seniors and people with disabilities. www.cahealthadvocates.org /HICAP/ Call (800) 434-0222 to ask a question or to make an appointment.

Health Rights Hotline

Serving Placer, El Dorado, Yolo, & Sacramento Counties, regardless where you receive your health coverage. Tollfree (888) 354-4474 or TDD (916) 551-2180. In Sacramento. (916) 551-2100. www.hrh.org.

HMO Help Center

Assistance 24 hours a day, seven days a week. (888) HMO-2219 or (877) 688-9891 TDD

DRA's Health

Access Project Free publications about the health care, insurance rights and concerns of people with disabilities and serious health conditions. For more information, go to http://dralegal.org/ and click on "Projects".

Start a support group in your area: Contact Bev Anderson at (877) 622-6298 or info@pnhelp.org

DISCOUNTS FOR WNA MEMBERS

The following companies or individuals have agreed to give WNA a discount to WNA members. Give them a call or visit. If you choose to purchase the service or wares of any on this list, pull out your PCNA/WNA Membership Card and claim the discount.

Anodyne Therapy

Infrared Light Therapy equipment-\$50 off Model Freedom 300 (single leg at a time) and \$50 discount on Model 120 that does both legs at the same time. Contact: 800-521-6664 or www.anodynetherapy.com

HealthLight Infrared Light Therapy equipment - 10% off Single Boot System and Dual boot system.

Contact: 888-395-3040 or www.healthlight.us

Auburn The Footpath

825 Lincoln Way (530) 885-2091 www.footpathshoes.com PCNA Discount: 10% off the regular price shoes.

Elk Grove Shoes That Fit

8649 Elk Grove Blvd. (916) 686-1050 PCNA Discount: 20% off the regular price shoes.

Fortuna Strehl's Family Shoes & Repair

Corner of 12th & Main 1155 Main Street (707) 725-2610 Marilyn Strehl, C.PED is a Certified Pedorthic PCNA Discount: 10% off the regular price shoes.

Sacramento Midtown Comfort Shoes

3400 Folsom Blvd. (916) 731-4400 PCNA discount: 15% on the regular price.

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THE FIRE WITHIN - NERVE DAMAGE IN NEUROPATHY PROGRESSES SOONER THAN PREVIOUSLY THOUGHT, LENDING URGENCY TO EARLIER DETECTION AND TREATMENT

By David Glenn

http://www.hopkinsmedicine.org/news/publications/hopkins_medicine_magazine/features/fall-2016/the-fire-within

Anna Beck in Carmel, CA, sent this article (see link above) which is quite interesting but too lengthy for Neuropathy Hope so I'm providing the link so you can find it easily. It is from John Hopkins University Medical Center Neurology Department which is well known to be an excellent hospital and research center in Baltimore, MD. Their method of diagnosis is especially interesting in that they actively take skin biopsies as they find many times the peripheral neuropathy starts as small fiber neuropathy and spreads inward to the larger "Peripheral neuropathy often begins with damage in the unmyelinated small-fiber nerves, resulting in numbness, tingling and lightninglike shooting pains, most commonly in the feet and hands."

In taking sequential biopsies from the same areas of the body, they found that changes happened rather rapidly compared to the normal

person used as comparison that didn't change. It seemed that prediabetes showed the changes dramatically leading them to believe that neuropathy definitely develops in prediabetes.

"Sequential skin biopsies have become an increasingly powerful tool for uncovering the mysteries of neuropathy."

"The study's first striking finding was that patients with impaired glucose regulation – a condition often known as prediabetes – saw their neuropathy progress just as aggressively as patients with full-blown diabetes. The second finding was that nerve damage increased just as fast at sites on the patient's upper thighs as it did on patients' toes and feet, where they actually perceived their symptoms."

The article expands on this study and some other work being done at Johns Hopkins. It is well worth reading.

MEDICAL ERRORS: THIRD LEADING CAUSE OF DEAH IN U.S.?

Medical error is the third leading cause of death in the United States, after heart disease and cancer, according to findings published in the BMJ in May. The researchers examined four studies that analyzed data on medical death rates from 2000 to 2008. Then, using hospital admission rates from 2013, they extrapolated that, based on 35,416,020 hospitalizations, 251,454 deaths stemmed from a medical error. That number of deaths translates to 9.5% of all deaths each year in the United States and puts medical error above the previous third-leading cause, respiratory disease.[88] Physicians and other clinicians who commented on the article predominantly disagreed with the study's finding, as described in a "Physicians Are Talking About" article published later that month

on Medscape.[89] In fact, in a June Medscape poll, 51% of respondents said they do not think medical errors are the third leading cause of death in the United States compared with 31% who do and 18% who are uncertain. For physician respondents, those percentages were 66%, 18%, and 15%, respectively. Regarding other issues, 74% of overall respondents said the way the authors defined medical error was much too broad or somewhat too broad vs 13% who said it was accurate, 3% who called it somewhat or much too narrow, and 5% who were uncertain.[90] In July, two physicians called for the BMJ to retract the study, but the journal said a retraction was not warranted.[91]

■ THALIDOMIDE NEUROPATHY

Some people take thalidomide to treat other problems like Crohn's disease. It can cause neuropathy. A study reported in the Journal of Pediatrics 8-25-2016 concludes "Factors in addition to the total dose may contribute to the risk profile for thalidomide neuropathy,

including pharmacogenetic susceptibilities. The severity of the neuropathy does not worsen relentlessly. Children, adolescents and young adults receiving thalidomide should undergo regular neurophysiological studies to monitor for neuropathy."

LOW-DOSE NALTREXONE FOR REFRACTORY PAINFUL DIABETIC NEUROPATHY

(I had hoped to be able to present the whole article with permission from the Journal of the American Academy of Pain Medicine, April 2016, but I've not received the permission as yet so this is a quick summary of a valuable article you can find on line by the title of this article.)

Naltrexone is a long-acting, potent, competitive opioid antagonist approved for the treatment of alcohol and opioid dependence at a dose of 50 mg/day. It has also been found to be effective for diabetic nerve pain, AKA neuropathy. The experience of a 76-year-old male with a 30-year

history of Type 2 diabetes and 7 years of neuropathic symptoms is given in illustrating the value of this drug.

This is a new treatment for neuropathic pain. If you have not found something that works for you, you might talk to your doctor about this. Give him or her a copy of the article if you are able to find it or the title of this article and that it is found in the Journal of the American Academy of Pain Medicine, April 2016.

Full article may be downloaded from http://painmedicine.oxfordjournals.org/content/17/4/790. full. You may want to ask your doctor to download this for you as it requires membership log in to access.

D.C. WEEK: 'CURES' ACT GOES TO PRESIDENT'S DESK AND OTHER NEWS

by Shannon Firth, Washington Correspondent, MedPage Today, December 10, 2016

WASHINGTON -- The Senate passed a sweeping 1,000 page "Cures" bill in the hope of speeding drug development, expanding treatment for opioids and reforming mental health.

Senate Passes 21st Century Cures Act

The Senate passed the 21st Century Cures Act, sweeping legislation that aims to bring treatments more quickly from the lab bench to patients' bedsides, on Wednesday afternoon in a vote of 94-5.

"As a result of a lot of strong bipartisan work, we are sending a bill now to the president's desk that will invest in tackling our hardest to treat diseases, put real dollars behind the fight against the opioid epidemic and make badly needed changes to mental health care in our country," said Sen. Patty Murray (D-Wash.), ranking member of the Senate Health, Education, Labor and Pensions Committee, just before the vote.

The "Cures" bill authorizes a total of \$6.3 billion for funding basic science, streamlining the FDA's review process, and addressing the opioids epidemic.

But not everyone was cheering: Public Citizen called the bill an early Christmas present for the pharmaceutical industry.

Earlier in the week, Sen. Bernie Sanders (I-Vt.), who voted against the bill, pressed Congress for an amendment to allow Medicare to negotiate with drug companies and to allow drugs to be imported from other countries.

"I have been fighting the greed of the prescription drug industry for decades and as far as I can tell the pharmaceutical industry always wins. They win but the American people lose," he said in a floor speech on Tuesday.

The bill now goes to President Obama, who is expected to sign it.

Opioid Overdose Deaths Keep Climbing, Says CDC

The number of people dying from opioid and heroin overdoses continues to rise according to new CDC data released on Thursday.

In 2015, approximately 33,091 people died from overdoses associated with illegal or prescribed opioids. Overdose from prescription opioids saw only a slight uptick, signaling that efforts to reign in their use may be working, noted a White House press release.

"Prescription opioid misuse and use of heroin and illicitly manufactured fentanyl are intertwined and deeply troubling problems," said CDC Director Tom Frieden, MD, MPH. "We need to drastically improve both the treatment of pain and the treatment of opioid use disorders and increase the use of naloxone to reverse opioid overdose. We must also work collaboratively with our public safety partners to further reduce access to illicit opioids."

President Obama has been pressing for \$1 billion in new funding to increase access to opioid treatment since February, said Michael Botticelli, the Director of National Drug Control Policy for the White House.

"This week Congress finally acted on the President's request. The Administration will work to get this new funding out to States as quickly as possible to make sure that every American who wants treatment for an opioid use disorder is able to get it."

Other

The Alliance for Health Reform will soon discuss the role of social determinants of health.

The Association of Academic Health Centers and the GW Workforce Health Institute will co-host a panel to discuss recent developments and potential next steps in graduate medical education.

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DISCOUNTS FOR WNA MEMBERS

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West Sacramento
Beverly's Never Just
Haircuts and Lilly' Nails
2007 W. Capitol Ave, West
Hair-(916) 372-5606
Nails-(916) 346-8342
PCNA discount: 10% off
the regular price.

Neuropathy Support Formula

(1-888-840-7142) is a supplement that a sizable number of people are taking and reporting it has helped them. The company gives members of WNA a discount and free shipping. The 30-day supply is \$40 (normally \$49.97). It can be auto-shipped monthly for the same. A 3-month supply via auto-ship is \$95.00. They also have a Nerve Repair Optimizer that is available for \$20 with free shipping. Marsha, the manager, said that if anyone wants more information about the product, they can call and ask for her. If she is not readily available, leave your number and she will call you back.

Free DVD on
"Coping with Chronic
Neuropathy", introduced
by Dominick Spatafora
of the NAF and endorsed
by major university
neurologists, is available by
contacting the Neuropathy
Support Network at
www.
neuropathysupportnetwork.

Additional Discounts

org/order-neuropathy-dvd.

Do you know a business that might offer our members a discount? Tell them that they will be listed each month in our newsletter and on our website so our members will know of their generosity and patronize their business. Call (877) 622-6298 or e-mail info@pnhelp.org.

We'll mail an agreement form to the business, and once we have it, we'll add them to this list.

Alternative Treatment Of Neuropathic Pain: NMDA Inhibition Literature Review - Continued from page 1

increasing its blood level. DM (commonly used as a cough suppressant in cold medicines) is effective in reducing diabetic neuropathic pain as well as pseudo bulbar affect (uncontrolled emotionality post stroke). 20373255

The third article, from Baylor, is a 13 week randomized, placebo-controlled trial of dextromethorphan (DM) 45mg/quinidine 30mg, an NMDA inhibitor Nuedexta® and its lower dose form, DM 30mg/quinidine 30mg, found reduced diabetic neuropathic pain and insomnia as well as increased activity level. Both dosage forms were statistically better than placebo, but the higher dosage was statistically more significant than the lower. 22314263

The fourth article is a placebo controlled double blind randomized crossover study of 15 posttraumatic neuropathy patients at the University of Oslo that compared dextromethorphan (DM) 270mg with placebo. At high doses of DM, light-headedness was a problem for some. Analgesia was achieved with extensive metabolizers indicating that the main metabolite, dextrorphan, was important for analgesia. 14982566

AMANTADINE

There were three articles, which discussed amantadine (Symmetrel®) as a treatment for neuropathic pain. It is an NMDA inhibitor used to treat Parkinsonism as well as to prevent influenza. The first article was a randomized controlled trial of analgesia for post surgical pain in 15 cancer patients, which found that amantadine (Symmetrel®) 200mg administered intravenously on two occasions, a week apart, reduced pain by 85%, where placebo reduced pain by 45% (p=0.009). 9583771

The second article was a double blind randomized placebo controlled crossover study of amantadine 200mg in a single infusion for painful diabetic peripheral neuropathy that showed a significant improvement (p=0.003) over placebo, and was sustained for at least a week, ht12581262

The third article was an uncontrolled, open 4-week trial of oral amantadine (Symmetrel®) 200mg daily with 19 neuropathic pain patients found intolerable side effects in over half. Only two patients had good or excellent pain relief. 14566521

SUMMARY

Although there has been reported success in controlling the pain of peripheral neuropathy with NMDA inhibitors, also referred to as blockers or antagonists, no drug company has received FDA approval for that indication. NMDA inhibitors, however, are available on the market for other indications:

Ketamine (IV anesthetic); DM (cough syrup); memantine (Namenda®) for Alzheimer's disease; Nuedexta® (a combination drug of DM 20mg/quinidine 10mg used to control pseudobulbar affect; and amantadine (Symmetrel®) 100mg for control of Parkinsonism and prevention of influenza.

Even though these medications are not FDA approved for PN, they can be prescribed "off-label" by the physician. A compounding pharmacist can also mix them with other medications. When a patient with chronic pain is unresponsive to more commonly used drugs, the NMDA inhibitors might be worth considering.

NOTE: This article uses the hyperlinked PMID of the referenced article as a footnote, which can be clicked in the online edition, taking the reader to the article summary at the National Library of Medicine website.

An Annotated Bibliography of NMDA Inhibition and Neuropathy

- 17157116 This University of Chicago dose escalation study of dextromethorphan (DM)/ quinidine 30mg one to four daily resulted in significant pain relief (p=0.001—probability of chance result less than 0.1%). Adverse events occurred as follows: nausea 27.8%, dizziness 25.0% and headache 25.0%. DM is the ingredient found in cough medicine and is an NMDA inhibitor. Quinidine is a cardiac drug used to control arrhythmias and incidentally increases blood levels of DM.
- 20373255 This paper discusses a novel combination drug, Nuedexta®, which contains the NMDA (N-methyl-D-Aspartate) antagonist, dextromethorphan (DM) and quinidine, a cytochrome p450 2D6 enzyme inhibitor that effectively prevents the metabolism of DM, increasing its blood level. DM (commonly used as a cough suppressant in cold medicines) is effective in reducing diabetic neuropathic pain as well as pseudo bulbar affect (uncontrolled emotionality post stroke).
- 21044263 This systematic review of 28 studies of NMDA receptor agonists for the treatment of neuropathic pain including complex regional pain syndrome, post herpetic neuralgia and postamputation pain. Oral memantine was ineffective for all groups, and intravenous ketamine was effective only in postamputation pain.
- 22314263 This13 week Baylor randomized, placebocontrolled trial of dextromethorphan (DM) 45mg/quinidine 30mg, an NMDA inhibitor marketed as Nuedexta® and its lower dose form, DM 30mg/quinidine 30mg, found reduced diabetic neuropathic pain and insomnia as well as increased activity level. Both dosage forms were statistically better than placebo, but the higher dosage was statistically more significant than the lower.
- 24565006 This rather technical article reviews the various classes of chemical compounds yielding effective new analgesics. Recent research is documented in the following areas: serotonin/norepinephrine reuptake inhibitors, opioid receptor agonists, cox inhibitors, sodium and calcium

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Alternative Treatment Of Neuropathic Pain: NMDA Inhibition Literature Review - Continued from page 6

- channel blockers, topical capsaicin, P 38 kinase inhibitors, alpha adrenoreceptor agonists, and NMDA inhibitors.
- 12373705 This study of ketamine (0.25-1.5%) ointment reports local anesthetic effect in the early dystrophic stage of complex regional pain syndrome. Effect is attributed to the drug's blockade of the NMDA receptor.
- 12707455 This study reports on the non-randomized, uncontrolled treatment of 16 post-herpetic neuralgia patients with the addition of 5mg/ml ketamine gel, with reduction in pain levels from severe to either moderate or mild.
- 15101968 This article from Hahnemann School of Medicine reports 5 cases of neuropathic pain responding within 5 minutes following the topical application of 10% ketamine gel, with a 53-100% reduction in NAS pain scores, without significant side effects.
- 19703730 This is a study of 20 patients with posttraumatic complex regional pain syndrome, thought to be a form of peripheral neuropathy. The application of 10% racemic ketamine in pluronic lecithin organogel inhibited allodynia (light brushing producing intense pain) in these exquisitely sensitive patients.
- 22028723 This is a case report involving the progressive addition of topical amitriptyline 5% cream, 10% ketamine cream, and DMSO 50% three times a day with reduction of pain from 26/45 to 6/25 on the McGill Pain Questionnaire.
- 22500483 This is an optimistic Mayo review of the use of Ketamine, an NMDA antagonist originally used as an anesthetic, that is now used as an analgesic for the

- management of refractory neuropathic pain, available in oral, intravenous, subcutaneous, and topical forms.
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- 14982566 This placebo controlled double blind randomized crossover study of 15 posttraumatic neuropathy patients at the University of Oslo compared dextromethorphan (DM) 270mg with placebo. At high doses of DM light-headedness was a problem for some. Analgesia was achieved with extensive metabolizers indicating that the main metabolite, dextrorphan, was important for analgesia.
- 9583771 This randomized controlled trial of analgesia for post surgical pain in 15 cancer patients found that amantadine (Symmetrel®) 200mg administered intravenously on two occasions a week apart reduced pain by 85%, where placebo reduced pain by 45% (p=0.009).
- 12581262 This double blind randomized placebo controlled crossover study of amantadine 200mg in a single infusion for painful diabetic peripheral neuropathy showed a significant improvement (p=0.003) over placebo, sustained for at least a week.
- 14566521 This uncontrolled open 4 week trial of oral amantadine (Symmetrel®) 200mg daily with 19 neuropathic pain patients found intolerable side effects in over half. Only two patients had good or excellent pain relief.

President's Message – Continued from page 3

Welcome to new group leaders: Bonnie Zimmerman in Fresno is stepping into the leadership role after Marvin Arnold, recipient of one of the Leader of the Year Awards at last year's conference, passed away. Larry Frice, leader of the Merced Neuropathy Support Group and Regional Coordinator in that area, assisted her at her first meeting. Lee Parlett, is now leader in Livermore. Sandra Grafrath moved to Escondido where she is closer to family members. Sandra as regional coordinator was also meeting with the Antioch-Brentwood Neuropathy Support Group. Their new leader is Marty Price who is ably assisted by Jim Perales.

As I write this, we are approaching December 21, the shortest day, longest night, so from there on it won't get darker any earlier. When you receive this newsletter, you may even be beginning to notice that there is more daylight each day. Spring is on its way. Almond trees and camellias may already be blooming.

Happy 2017,

Bev

EXERCISE IS OUR FRIEND

"Exercise and stretching can help relieve arthritis pain" is the title of an article in UCLA's HEALTHY/Years, Volume 14G-H. In the same issue, another headline proclaims "Maintaining Muscle Mass May Help Prolong Your Life." A piece from an internet source headlines "Exercise Eases Side Effects of Chemotherapy." As we go into a new year one of our resolutions could be to get more exercise.

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WESTERN NEUROPATHY ASSOCIATION

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BIG NEWS FOR THE NEW YEAR The 2017 Annual Neuropathy Conference April 18, 2017

The Mind Institute • U.C. Davis Medical Center Campus Sacramento, CA.

MARK YOUR CALENDARS NOW!

COMPOUNDING ALTERNATIVES FOR CONSIDERATION FOR NEUROPATHIC PAIN

David DeMartini, RPh, compounding pharmacist at DeMartini's Compounding Center in Grass Valley, spoke to the Grass Valley Neuropathy Support Group in November. He gave sheets listing four compounds he recommends for neuropathic pain.

- 1. Gabapentin 10% Gel 70 gm Apply BID
- 2. Gabapentin 10% Ketamine 10% Lidocaine 5% 60 gm Apply BID
- 3. Gabapentin 6% Ketamine 5% Amitriptyline 2% Baclofen 2% Lidocaine 2% Nifedipine 2% Gel 60 gm Apply BID
- 4. Naltrexone 4.5 mg Capsules #30 one daily

LIMIT FLUOROQUINOLONE USE IN LIGHT OF RISKS, FDA SAYS

Patients with uncomplicated infections should no longer receive fluoroquinolones, given the risk for disabling and potentially permanent adverse events, the FDA said in May. Labels for these antibiotics already warn about the risks for tendonitis, tendon rupture, central nervous system effects, peripheral neuropathy, myasthenia gravis exacerbation, QT prolongation and torsades de pointes, phototoxicity, and hypersensitivity. The FDA has updated the labels to state that the serious risks posed by fluoroquinolones generally outweigh their benefits for patients with sinusitis, bronchitis, and uncomplicated urinary tract infections that are treatable by other means.[95]



Western Neuropathy Association (WNA)

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Bev Anderson, Editor

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Our mission is to provide support, information and referral to people with neuropathy and to those who care about them, to inform and connect with the health care community, and to support research.

Dues - \$30 a year All contributions and dues are tax-deductible.

We are supported by dues-paying members, contributions by members and friends, and occasionally, small grants and fundraisers.

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