Marijuana and Parkinson’s Disease
By Joseph Jankovic, MD

There is growing interest in marijuana (cannabis) and cannabinoid-based drugs in the treatment of a variety of neurologic conditions including Parkinson’s disease (PD). Nearly every day I am asked by my patients what I think about marijuana for medical use. Many patients relate their own first-hand experience with marijuana. One patient recently related an anecdote how “Blue Dragon,” one of many strains of marijuana, helped her with her PD symptoms. Others describe similar benefits from other strains, such as Blue Pearl, Bubba Kush, Brainstorm Haze, Cherry Bomb, Haze Skunk, Jamaican Pear, Kahuna and Green Love Potion. Unfortunately, these anecdotes, while intriguing, are just that and there is little scientific evidence to support these observations. This is one reason why I was invited to briefly summarize a recent article my colleagues and I published reviewing the basic science and clinical research on therapeutic potential of cannabinoids in PD and other movement disorders (1).

Marijuana, also referred to as cannabis, consists of over 60 different chemicals that act on various parts of the brain, modulating the so-called endocannabinoid system which is involved in motor function. There is a huge variety of marijuana, but there are essentially two cannabis species, called sativa and indica. Sativa strains are higher in tetrahydrocannabinol (THC) which produce more sense of euphoria (“high”), whereas indica strains have more cannabidiol (CBD) and are more sedating and relaxing, and may be helpful in treating nausea and pain. While most people are familiar with smoked marijuana, edible cannabis is increasingly used for both recreational and medical purposes. In contrast to inhaled marijuana, the response to edibles may be delayed by several hours and may be less predictable. An unwitting user may not experience any effects until an hour or two after ingesting parts of cannabis fruit or chocolate bars at which time they may note the onset of side effects such as dry mouth, dizziness, visual hallucinations, drowsiness, unsteadiness and slowing of time perception.

Using animal models of PD, researchers have shown that cannabis may have neuroprotective effects. This suggests that it may possibly slow down the progression of PD. Indeed, in 2003, the U.S. Health and Human Services was granted U.S. Patent 6630507, which lists the use of cannabinoids found within the cannabis sativa plant as useful in certain neurodegenerative diseases such as PD. The exact mechanism by which cannabis exerts neuroprotection is not known but it may serve as a potent antioxidant. It may also have some anti-inflammatory effects and reduce toxicity from glutamate, a toxic neurotransmitter.

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Some but not all animal studies suggest that cannabinoids may actually worsen motor symptoms of PD (by inhibiting the release of dopamine). The animal studies also show that cannabinoids possibly improve involuntary movements caused by L-dopa (levodopa-related dyskinesias). When cannabis drugs, however, were tested in patients with PD, no clear benefits could be demonstrated. Indeed the American Academy of Neurology systematically evaluated the published clinical evidence and concluded that cannabis-based drugs are “probably ineffective in treating levodopa-induced dyskinesias in PD or tremor” (2). Although cannabinoid-based drugs, such as nabilone, dronabinol, Epidiolex™, and Sativex®, are now approved for some neurologic conditions, none have been approved for the treatment of PD.

In conclusion, despite the widespread publicity about the medical benefits of marijuana, further research is needed to better understand the potential role of this class of drugs in the treatment of PD and related movement disorders. Many individuals and groups have advocated removing cannabis from Schedule I of the Controlled Substances Act, the most tightly restricted category reserved for drugs which have "no currently accepted medical use" and a high potential for abuse, including heroin, LSD, ecstasy, and peyote to Schedule II or III class drugs with less abuse potential. Such re-classification would likely facilitate further research into neurological uses of cannabis. Until additional credible evidence is provided, marijuana cannot be recommended for the treatment of PD or levodopa-related dyskinesias.

References:

Joseph Jankovic, MD is Professor of Neurology and Distinguished Chair in Movement Disorders; Director, Parkinson’s Disease Center and Movement Disorders Clinic, Department of Neurology, Baylor College of Medicine. In 1977, he joined the faculty at BCM and became a founder and director of the Parkinson’s Disease Center and Movement Disorders Clinic, which has since been recognized as a “Center of Excellence” by the National Parkinson Foundation and the Huntington Disease Society of America. Dr. Jankovic has published over 900 original articles and chapters and has edited or co-edited over 50 books and volumes including several standard textbooks. Dr. Jankovic is a current member of numerous scientific and medical advisory boards including the HAPS Medical Advisory Board, the executive scientific advisory board of The Michael J. Fox Foundation for Parkinson’s Research and the National Parkinson Foundation Clinical and Scientific Advisory Board. He has mentored and trained countless individuals who have become leaders in the field of movement disorders.

AIRPO Members Exchange Information, Ideas and Resources

In March, Houston Area Parkinson Society Board President Mike Hendryx and Executive Director Anne Thobae attended a 2-day meeting of the Alliance of Independent Regional Parkinson Organizations (AIRPO) hosted by Parkinson’s Disease Foundation (PDF) in New York. This leadership consortium, which began meeting in 2009, formalized officially as AIRPO in 2014 and has grown to include eight members representing Parkinson’s patient support organizations in the U.S. that are not local chapters of national organizations. All member organizations share a common mission to improve life for those with Parkinson’s and each serves its respective community in regions across the nation in a variety of ways.

By expanding communication on a national scale, member organizations address the diverse challenges facing the Parkinson’s disease community together. Sharing perspectives and learning from each other enhances our collective ability to serve people with the disease. HAPS and fellow founding members—Michigan Parkinson Foundation, Northwest Parkinson’s Foundation, Parkinson Association of the Carolinas and Parkinson Association of the Rockies—welcomed AIRPO’s newest members at the meeting, which include Dallas Area Parkinsonism Society, Parkinson’s Association (serving Southern California) and Parkinson Support Center of Kentuckiana.

With a focus on various pertinent and relevant topics, Parkinson’s Action Network (PAN) Chief Executive Officer Ted Thompson, pictured with the group, updated members on advocacy efforts impacting public policies for Parkinson’s research and quality of life for those with the disease. Additionally, Parkinson Association of the Rockies presented an exciting social media opportunity for AIRPO collaboration, the Denver based Cardel Homes sponsored Push-ups 4 Parkinson’s Challenge campaign. For details on the May 1st launch of this initiative, see related article in this issue. Many thanks to PDF for its outstanding convening support which makes this meeting possible!

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HAPS Social Workers Go to Washington

On Monday, March 22, all three HAPS social workers traveled to Washington, D.C. with over 250 other Parkinson’s disease advocates to attend the three-day Parkinson’s Action Network (PAN) Forum.

The first day at the Forum opened with the White House Champions of Change event, which honored many individuals who have worked tirelessly for Parkinson’s disease research, advocacy and change. This exciting program was followed by the first two official days of the Forum which consisted of sessions covering many facets of the Parkinson’s disease experience including the latest in research, new technologies, access to innovations and the political climate in the United States as we approach a Presidential election year.

Participants were also prepped on several issues to advocate for on Capitol Hill on the third and final day of the Forum referred to as “Hill Day.” PAN prepared advocates to ask for support in three ways:

- Co-sponsoring H.R. 292: The Advancing Research for Neurological Diseases Act, which will help create a data collection system at the Centers for Disease Control (CDC), helping to increase our understanding of the disease – and, we hope, pave the way for better treatments and cures
- Supporting robust funding in the coming fiscal year (2016) through the Department of Defense (DoD), National Institutes of Health (NIH) and Food and Drug Administration (FDA) to ensure that medical research stays a top priority
- Joining the Congressional Caucus on Parkinson’s Disease, which helps raise awareness of Parkinson’s and demonstrates a commitment to finding better treatments and a cure

Hill Day was filled with excitement as all PAN Forum attendees congregated on Capitol Hill. The entire team from Texas met with staffers from Senator Ted Cruz’s and Senator John Cornyn’s offices before dividing into two groups to meet with Representatives and staff from eight of Texas’ 36 Congressional Districts. Representatives Gene Green and Sheila Jackson Lee took time from their busy schedules to meet in person with the Texas teams. These meetings were well-received and, hopefully, will prove fruitful as our nation’s leaders continue to work in our best interests.

As Assistant State Directors in PAN’s grassroots leadership, Director of Social Services and Program Development Kathleen Crist, LMSW, Social Worker and Special Programs Coordinator Celeste Harris, LMSW and Social Worker and Advocacy Outreach Coordinator Leann Randolph, LMSW will continue to work closely with Israel Robledo, State Director and Linda Swanson, Assistant State Director (all pictured above) as well as other PAN leaders in Texas. Being the nation’s 2nd largest state in both population and size, it was surprising that Texas brought a delegation of just five advocates, only two of whom have a Parkinson’s diagnosis. In 2016, our goal is to bring more people with us to Washington as we represent Texas in these advocacy efforts so our voices can be heard. We need your help to promote Parkinson’s disease research, the importance of improving treatments and urgency in finding a cure. To learn more about PAN, visit www.parkinsonaction.org.

Newly Diagnosed Education Program

For those who have been diagnosed with Parkinson’s disease within the last three years

Saturday, May 30th
8:30 am - 12:30 pm

Presented by Toby Yaltho, M.D.

Registration is required. Contact the HAPS office for more information: 713-626-7114 or crist@hapsonline.org
Researchers also hope it will help doctors track treatment

Researchers have developed a blood test that they say could help neurologists detect Parkinson's disease and track the illness as it progresses.

"If successful, we expect our findings will translate into a valuable diagnostic tool for Parkinson's disease," said study co-author Judith Potashkin, professor of cellular and molecular pharmacology at Chicago Medical School, Rosalind Franklin University of Medicine and Science.

An estimated 60,000 people in the United States are diagnosed with Parkinson's disease each year, according to the Parkinson's Disease Foundation. There is no cure for the disease, which can cause tremors and severely hamper movement. While medications can be helpful, the illness gets worse over time, and medications do not stop its progression.

Physicians traditionally diagnosed Parkinson's by analyzing symptoms. Now, brain scans are available that provide insight, but scan images can still leave room for doubt, Potashkin said.

In their new study, researchers say they've found two genetic markers that are 90 percent effective at indicating the presence of Parkinson's disease. The markers are related to how the body processes glucose (blood sugar) and insulin, said study lead author Jose Santiago, a research associate at Chicago Medical School.

The researchers then tracked 101 people with Parkinson's and 91 healthy people. They found that gene "expression" changed significantly over three years in the Parkinson's patients.

More research is needed to confirm that the test works, and the researchers would like to make it more accurate. Also, it's not clear how much the test might ultimately cost.

One goal is to "greatly" improve the accuracy of Parkinson's diagnosis through a combination of analysis of symptoms, brain scans and blood tests, Potashkin said. It would also help to diagnose Parkinson's in early stages and use blood tests to check its progress and see if drugs work early on, she said.

"There has been a suggestion from earlier clinical studies that diabetes may be a risk factor for subsequent Parkinson's development," Andersen said. "It is also possible that Parkinson's and diabetes share similar underlying causes associated with aging."

The study was published in the Feb. 3 online issue of the Proceedings of the National Academy of Sciences.

Changes You Should Know About

Due to circumstances beyond our control (fire, water main bursts, etc.) several of our groups have had to temporarily move to new locations or be put on hold while facilities undergo repair. Please make sure that you check the group insert in this newsletter to confirm group schedule, time and locations or contact Angelica Rodriguez at 713-313-1652 or rodriguez@hapsonline.org for more information.
The Michael J. Fox Foundation and AbbVie have partnered to create Partners in Parkinson’s, a national strategic health initiative which aims to fill in knowledge gaps and provide new educational tools and resources for the Parkinson’s community to help patients optimize their care from point of diagnosis through advanced disease.

Combining virtual and face-to-face opportunities, Partners in Parkinson’s empowers patients and families to “discover the benefits of team” by connecting them with information and resources that can be crucial in developing a plan of care specific to their Parkinson’s.

Together, HAPS and MJFF are bringing Partners in Parkinson’s to Houston September 12, 2015. Stay tuned for more details about this exciting, upcoming event!
Have you heard of the ALS Ice Bucket Challenge? Now is your chance to participate in a similar challenge to benefit people with Parkinson’s disease. Join HAPS and the other Alliance of Independent Regional Parkinson Organizations (AIRPO) members across the nation and take the Cardel Homes Push-ups 4 Parkinson’s Challenge kicking off on May 1st! Created by Cardel Homes in Colorado in partnership with the Parkinson Association of the Rockies, this challenge is designed to encourage creative and fun online videos to help raise awareness for Parkinson’s, as well as generate crucial funding for the programs and services of each participating Parkinson’s support organization.

Here is how it works:

* Take a video of yourself doing any kind of push-ups including modified push-ups, air push-ups, or pushing up off a chair – anything is acceptable. The more innovative, the better!
* In your video, nominate specific friends to donate and take the Push-ups 4 Parkinson’s Challenge.
* Upload your video to your Facebook page, tagging the friends you challenged and using the hashtag #pushups4parkinsons.
* Go to www.pushups4parkinsons.com, click the HAPS link and make a donation.
* Encourage your community groups to get involved—schools, churches, fitness groups, companies, restaurants, etc.

Don’t forget to “like” the HAPS Facebook page to see all HAPS push-up videos with Board President Mike Hendryx being the first member of HAPS to take the challenge. For more information, visit the HAPS website or contact nicholls@hapsonline.org.

**COMING THIS SUMMER TO A LOCATION NEAR YOU....**

HAPS has new groups in the works for the Kingwood, Sugar Land and Dickinson areas. Stay tuned to the HAPS newsletter for more information on these new and exciting groups!

**Parkinson’s in the Park**

The storm clouds and rain couldn’t keep away the fun at HAPS’ first Parkinson’s in the Park event held in recognition of Parkinson’s Awareness Month on Thursday, April 16th. Fortunately, the venue had an indoor option so the party was simply moved inside.

Over 40 people gathered for games, music, traditional picnic food and prizes. Some chose to play bean bag toss, washers and Frisbee—which were a hit, while others played games like checkers and chess.

Nothing could deter this group from achieving the goal of the day, which was to just have fun!

Thanks to all the HAPS Board members and volunteers who helped out and to The Original Carrabba’s for wonderful prizes.
CONTRIBUTIONS
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HAPS Heroes Take 2nd Place as Top Fundraising Marathon Charity
Holy fundraising, Batman! HAPS Superhero Squad received honors as the 2nd Place Overall Top Fundraising Charity in the 2015 Chevron Houston Marathon after raising an impressive $119,756. HAPS would like to thank all of its fundraisers and donors who helped make this HAPS’ most successful Marathon yet. With recognition in 2004, 2011, 2014 and 2015—we have a reputation to uphold...Look for information soon in the HAPS newsletter and on our website about how you can be a hero in the 2016 race and help us keep our place of honor!
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