Inhaled Levodopa Shows Promise in Phase 2b

Phase 2b data for Acorda Therapeutics' Inhaled levodopa (CVT-301) therapy presented at the 19th International Congress of Parkinson’s Disease and Movement Disorders show that it provides rapid motor improvement in Parkinson’s disease (PD). CVT-301 is being developed to treat OFF episodes; Following inhalation, concentrations rise rapidly within approximately ten minutes to therapeutic levels.

Eighty-six patients were randomized to receive either CVT-301 or placebo. Onset of action was based on UPDRS III score improvements. With an average daily use of approximately two times per day, CVT-301 was associated with a 1.6-hour reduction in daily OFF time, or a 30-35 percent reduction from baseline during the period of use, according to a report presented at the 19th International Congress of Parkinson’s Disease and Movement Disorders. In addition, no increase in ON time with dyskinesia was evident. Treatment was well-tolerated with a low incidence of side effects.

Study investigator, Robert A. Hauser, MD, Director, Parkinson’s Disease and Movement Disorder, Neurology and Professor, Neurology, University of South Florida spoke with Practical Neurology about the significance of the findings. “The Phase-2B was a placebo controlled study, so of course, that stands out…What also stood out was the result with regard to efficacy as well as safety,” Dr. Hauser says.

New avenues for delivery of levodopa are welcome by clinicians, Dr. Hauser notes. “Despite the medications that we have available, off episodes are prevalent and we don’t really have the tools yet to eradicate them, or even adequately treat them. We still need good, easy to administer, treatments for off episodes,” he says. “Ideally, such treatments would work quickly and fill the gap between other treatments, particularly oral Levodopa. You’d like to see therapies that work quickly and last, typically, somewhere 60 to 90 minutes until the next oral levodopa dose kicks in.”

The study included both in-clinic and at-home use and evaluations. In-clinic, patients’ Parkinson motor scores were evaluated from 0 to 60 minutes. “For both the lower dose, which was 35mg and the higher dose, 50mg, there was a significantly better improvement in motor scores from 10 minutes all the way out through 60 minutes. So, an improvement in 10 minutes suggests that there is a rapid onset of action and suggests that this could potentially be beneficial for many patients who are experiencing off episodes,” Dr. Hauser observes.

Findings from the Phase 2b study warrant further investigation, Dr. Hauser suggests. In Phase 3 trials, he says. “We would like to see a replication of the difference between placebo and active medication in the in-office visit. We’ll be looking to confirm early onset of action and maintenance of benefit through the 60-minute time frame. In the Phase -2B study, patients were only allowed to take study medication at home up to 3 times per day. In Phase-3, they’ll be allowed to take it up to 5 times per day. We’ll be looking to see how much benefit CVT-301 provides compared to placebo with regard to home use.”

Inside the Expanded Label for Botox for Upper Limb Spasticity

FDA this spring approved an expansion of the indication for Botox (onabotulinumtoxinA, Allergan) for the treatment of adults with upper limb spasticity. The expanded label now includes the addition of two thumb muscles: flexor pollicis longus and adductor pollicis. The maximum dose is increased from 360 units to 400 units for the treatment of upper limb spasticity. The FDA also approved an increase in the maximum cumulative dose of Botox within three months from 360 units to 400 units in adults treated for one or more indications.

Researcher Allison Brashear, MD, Professor and Chair at Wake Forest School of Medicine, Wake Forest Baptist Medical Center in Winston-Salem, NC, spoke with Practical Neurology about the new indication and its clinical implications. Noting that the recent FDA action changes both the label and the dosing, Dr. Brashear says, “Hopefully it will allow a broader dissemination of information about the value of injecting the thumb in addition to the wrist and fingers.”

The label changes are based on review of findings from multiple studies. “For clinicians, it’s going to further expand what we know. It confirms what many of us have been doing. For patients, though, it should make a difference in terms of the payer and heightened awareness about the particular benefits of injecting in the thumb, as well as the wrists and fingers.”

Despite knowledge of the utility of neurotoxin treatment in spasticity, patient access may be limited, Dr. Brashear says. She notes a need for appropriate referral of patients who may benefit from injections or other assessments for
spasticity. “I think anything that we can do to get the word out more about spasticity and potential treatments is really important,” she says. “There is a website, botoxuls.com that has a lot of information about spasticity that can be helpful to people.”

For Dr. Brashear, it comes down to offering comprehensive care to patients. “We do a great job of taking care of stroke patients: Shorter needle time. Comprehensive stroke centers like we have at Wake Forest, are amazing. What we don’t do a good job with is the afterthought of stroke. The patient goes home. They’ve already gone to their acute rehab. Or they’re in a skilled nursing facility, or they’ve gone home, and over months they’ve developed spasticity. That is when we need to really get patients back engaged with their provider. So that when they have the tightness in the elbow, wrist and fingers, and now in the thumbs, they can really think about being treated and evaluated appropriately at one of these centers.”

Research Highlights Minority Experiences in MS

Research presented at the 2015 Annual Meeting of the Consortium of Multiple Sclerosis Centers (CMSC) shows that the unmet education needs of minority patients with MS are similar to those of MS patients in general. “One major area of unmet need is better education on the value of participating in clinical trials and how to participate in clinical trials,” observes Leslie Meltzer, PhD, co-author and Director, US Medical Affairs - MS Franchise at Biogen. The study found that patients treated by an MS specialist were more likely to participate in clinical trials.

Researchers conducted a study to understand varying components of patient educational need, including experience with MS diagnosis, satisfaction with quality of medical care, attitudes regarding clinical trials, barriers to medical care, preferred MS educational sources and topics, and unmet MS educational needs. Screening questions were designed to ensure that the survey would be directed to US minorities, specifically African American and Hispanic patients, and were available in both English and Spanish. Data are being collected using an online survey system and analyzed using descriptive and inferential statistics. Survey items, including socioeconomic demographics, years with MS, and current treatment regimen, will be used to stratify the responses and help understand specific needs of this community.

“The majority of patients agreed that their health care provider was the most reliable source of information for them,” Dr. Meltzer says. “I think that really speaks to the needs of the physicians to make themselves the primary resource to those patients.”

Dr. Meltzer notes that Biogen, which supported the study, is dedicated to researching the underrepresentation of minority populations in MS research in hopes to bring these individuals into research and improve access to care.

Another poster, “Clinical Course of Relapsing-Remitting Multiple Sclerosis (RRMS) in Non-White MS Patients” presented by Mitzi J. Williams, MD and supported by Biogen, found MS disability outcomes were worse in Black versus White patients and baseline disease seemed to be more severe in the Asian population among placebo-treated patients from MS clinical trials. Baseline disease seems to be more severe in the Asian population among placebo-treated patients from MS clinical trials. Mitzi J. Williams, MD of the Multiple Sclerosis Center of Atlanta, spoke with Practical Neurology® magazine about her research. Listen to her comments online in the “Audio” section of the Neuromuscular and Immune Disorders Center on PracticalNeurology.com.

Codman Neuro Launches Family of Coils for Treatment of Brain Aneurysms

Codman Neuro (DePuy Synthes Companies of Johnson & Johnson) has introduced a new platform of embolic coils for the treatment of brain aneurysms that they say is supported by an enhanced detachment system designed to improve microcatheter stability and provide an optimized detachment zone for coils. The family of framing, filling and finishing coils used during a minimally invasive endovascular procedure is designed to help doctors individualize intervention based on the unique anatomy of the aneurysm. Offering coils designed for each step of the procedure may help clinicians achieve aneurysm stability, effective neck coverage and the packing density needed for treatment of brain aneurysms, the company says. The announcement was made at Society of
NeuroInterventional Surgery (SNIS) 12th Annual Meeting.
The enhanced detachment system provides the physician with improved microcatheter stability. Tactile fluoro markers on the delivery wire improve visibility and control during the procedure, potentially reducing X-ray exposure time for patients and hospital staff. The announcement was made at the Society of NeuroInterventional Surgery (SNIS) 12th Annual Meeting.

The Codman Neuro family of coils features exclusive DELTAWIND™ Technology. This coil technology was designed with hundreds of natural micro-deflection points so the coils can easily change direction, which allows the coils to seek and fill open spaces and be uniformly distributed to facilitate increased packing density. High packing densities have been correlated with low patient retreatment rates.

Majority of residents report being satisfied

Despite large debts and long hours, new survey results find most medical residents are satisfied with their compensation, professional relationships, and career choices. Recently released results of part one of Medscape’s 2015 Residents Salary & Debt Report are based on responses from 1,745 residents across more than 24 specialties. The two-part report examines financial, professional topics, lifestyle, and practice-related issues that impact job satisfaction, career outlook and employment considerations.

Ahead are highlights of the findings.

Compensation and Debt:
• In 2015, the average resident reported a salary of $55,400, up slightly from $55,300 the year before.
• Male and female residents averaged nearly the same salary ($56,000 to $55,000 respectively); a slight improvement since 2014 ($56,000 vs. $54,000, respectively).
• Eighth-year residents made about 20 percent more ($63,000) than those newly graduated ($52,000). The highest paid residents are in critical care ($62,000), oncology ($61,000) and pulmonary medicine ($61,000), while the lowest paid are in internal and general/family medicine (each $53,000).
• More than one-third (37 percent) of residents carry upwards of $200,000 in debt, while approximately two-thirds (68 percent) have at least $50,000 in unpaid loans compared to the average graduate student who carries $57,600 in debt.
• About three quarters (74 percent) of 2015 respondents stated that potential earnings were somewhat-to-extremely influential in their specialty selection, and more than half (56 percent) of primary-care residents planned to switch specialties.

Hospital Life and Personal Wellness
• The majority of reported hospital time is devoted to patient care, with 79 percent of residents seeing patients at least 40 hours per week and 38 percent treating patients 60 hours per week.
• The percentage of residents working more than 60 hours per week is high in the first year (67 percent), but declines gradually through the fifth year (36 percent).
• 13 percent report that they always spend enough time and attention on personal wellness in order to prevent burnout.
• 58% of residents felt that they had a reasonable balance of important responsibilities and standard chores—20 percent said they had too much scut work, and 22 percent reported no menial work at all.
• 84 percent affirm that they look forward to becoming a doctor, and cite “clinical knowledge and experience” (75 percent), “Being very good at putting what I’ve learned into practice” (69 percent), and “Gratitude/relationships with patients” (63 percent) as key satisfaction measures. “Making good money” ranked near the bottom, with 32 percent citing it as a source of job satisfaction.
• The survey also found that 70 percent of respondents would be willing to conduct telehealth sessions via online videoconferencing, though this willingness seems dependent on incorporating face-to-face time
Projects that do not fall under one of these themes but provide a valuable contribution to the consortium will also be considered. Each selected school will join the consortium and work together with the founding 11 schools to share innovative ideas and best practices on new programs and curricula that can quickly be disseminated and implemented in additional medical schools across the country.

Two FDA-Approved Mini-Probes Launch

Monteris Medical has launched two new reduced diameter mini-probes for its NeuroBlate System, a minimally invasive robotic laser thermotherapy tool.

The new mini-probes have a reduced outer diameter of 2.2 mm. Each of the new FDA-cleared probes offers advantages, according to the company, depending on a surgeon’s particular procedural needs: SideFire Select is a directional laser for contoured ablation of targets while preserving adjacent healthy tissue, whereas the FullFire Select is a diffusing laser designed to provide fast, volumetric ablation in a concentric zone of hyperthermia.

NeuroBlate SideFire Select and FullFire Select laser mini-probes can be used within a standard MRI bore, and can also be used in conjunction with Monteris Medical’s Robotic Probe Driver and Mini-Bolt, as well as other skull fixation devices, the company noted.

The reduced outer diameter will help physicians and patients, said Eric Leuthardt, MD, of Washington University School of Medicine in St. Louis, who has studied the tools, in an interview with Practical Neurology® magazine.

“The reduced footprint on the brain allows us to go after more sensitive areas and smaller regions that are harder to target,” he said.

The NeuroBlate System employs a pulsed surgical laser to deliver targeted energy to ablate soft tissue. Each of the new probes “employs proprietary hyperthermia modulation and a unique sapphire capsule with high laser transparency and robust thermal properties,” according to the company.

Dr. Leuthardt said, per the usual, surgeons should exercise appropriate caution.

“As always, even if minimally invasive, this is still a surgical procedure with surgical risks,” he said. “The surgeon always has to be mindful that the area that they are treating with the laser can affect normal brain regions unless careful attention is given to both the abnormal areas, which should be treated, and the normal tissue, which should be avoided.”