Art Therapy Linked to Slowed Parkinson's Progression

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Adding art therapy to standard drug treatment in Parkinson’s disease (PD) not only improves severity of both motor and nonmotor symptoms, but also slows rates of disease progression, new research suggests.

Fifty PD patients were randomly assigned to receive either art therapy, including sculpting and drawing, plus drug therapy or drug therapy alone, and followed up over 12 months.

Patients receiving combined therapy experienced improvements in symptoms, depression, and cognitive scores, and had reduced tremor and daytime sleepiness. They were also substantially less likely to experience disease progression.

"The use of art therapy can reduce the severity of motor and nonmotor manifestations of Parkinson's disease," said study investigator Iryna Khubetova, MD, PhD, head of Neurology Department, Odessa Regional Clinical Hospital, Odessa, Ukraine.

Crucially, the positive effects "persisted throughout the observation period," she added.

The findings were presented at the 34th European College of Neuropsychopharmacology (ECNP) Congress, held in Lisbon, Portugal and virtually because of the pandemic.

A Promising Approach

Khubetova told Medscape Medical News that offering art therapy to PD patients was "very affordable," especially as professional artists "provided materials for painting and other art supplies free of charge."

"We hope this approach is very promising and would be widely adopted."

She suggested the positive effect of art therapy could be related to "activating the brain's reward neural network."

This may be via improved visual attention acting on visuospatial mechanisms and emotional drive, with "activation of the medial orbitofrontal cortex, ventral striatum, and other structures."

The researchers note PD, a "multisystem progressive neurodegenerative disease," is among the three most common neurological disorders, with an incidence of 100-150 cases per 100,000 people.

They also note that nonpharmacologic approaches are "widely used" as an adjunct to drug therapy and as part of an "integrated approach" to disease management.

To examine the clinical efficacy of art therapy, the team recruited patients with PD who had preserved facility for independent movement, defined as stages 1 to 2.5 on the Hoehn and Yahr scale.

Patients were randomly assigned to art therapy sessions alongside standard drug or standard drug therapy alone. The art therapy included sculpting, free drawing, and coloring patterns.

Multiple Benefits

Participants were assessed at baseline and at 6 and 12 months with the Unified Parkinson Disease Rating Scale (UPDRS), the Beck Depression Inventory, the Montreal Cognitive Assessment, and the Pegboard Test of finger dexterity.

Fifty patients were included in the study, with 30 assigned to standard drug therapy alone and 20 to the combined intervention. Participants had a mean age of 57.8 years, and 46% were women.

Over the study period, investigators found patients assigned to art therapy plus drug treatment had improved mood, as well as decreased daytime sleeping, reduced tremor, and a decrease in anxiety and fear intensity.

Between baseline and the 6- and 12-month assessments, patients in the combined therapy group showed improvements in scores on all of the questionnaires, and on the Pegboard Test. In contrast, scores were either stable or worsened in the standard drug therapy alone group.
The team notes that there was also a marked difference in rates of disease progression, defined as a change on the Hoehn and Yahr scale of at least 0.5 points, between the two groups.

Only two (10%) patients in the combined drug and art therapy progressed over the study period, compared with 10 (33%) in the control group ($P = .05$).

The findings complement those of a recent study conducted by Alberto Cucca, MD, Fresco Institute for Parkinson's and Movement Disorders, NYU School of Medicine, New York City, and colleagues.

Eighteen patients took part in the prospective, open-label trial. They were assessed before and after 20 sessions of art therapy on a range of measures.

Results revealed that following the art therapy, patients had improvements in the Navon Test (which assesses visual neglect, eye tracking, and UPDRS scores), as well as significantly increased functional connectivity levels in the visual cortex on resting-state functional MRI.

### Many Benefits, No Side Effects

Rebecca Gilbert, MD, PhD, vice president and chief scientific officer of the American Parkinson Disease Association, who was not involved in either study, told Medscape Medical News that the idea of art therapy for patients with Parkinson's is "very reasonable."

She highlighted that "people with Parkinson's have many issues with their visuospatial abilities," as well as their depth and distance perception, and so "enhancing that aspect could potentially be very beneficial."

"So I'm hopeful that it's a really good avenue to explore, and the preliminary data is very exciting."

Gilbert also highlighted that the "wonderful" aspect of art therapy is that there are "so many benefits and not really any side effects." Patients can "take the meds…and then enhance that with various therapies, and this would be an additional option."

Another notable aspect of art therapy is the "social element" and the sense of "camaraderie," although that has "to be teased out from the benefits you would get from the actual art therapy."

Finally, Gilbert pointed out that the difference between the current trial and Cucca's trial is the presence of a control group.

"Of course, it's not blinded, because you know whether you got therapy or not…but that extra element of being able to compare with a group that didn't get the treatment gives it a little more weight in terms of the field."

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