Inflammation, Depression, Slow Gait Define High-Risk Phenotype in Seniors

Amy Karon

SAN FRANCISCO — Patients with unchecked inflammation, depression, and slow gait make up a "depressed frail phenotype at grave risk of death," Patrick J. Brown, PhD, said at the 2016 International Psychogeriatric Association Congress.

"There are multiple pathways into this phenotypic cycle. Depression and slow gait share a bidirectional relationship, and inflammation may indirectly lead to depression because of its impact on mobility," said Dr. Brown, a clinical psychologist in the department of psychiatry at Columbia University, New York. Clinicians should consider aggressive interventions for older patients with depression and frailty, recognizing that exercise and dietary changes may be "much more relevant" than switching or augmenting antidepressants and other psychotropic medications, which can be especially risky for seniors, he said.

Models of psychiatric illness, particularly depression, come from studies of younger adults "and have failed us in geriatric medicine," Dr. Brown emphasized. About 3% to 7% of adults older than 65 meet criteria for major depressive disorder, and another 15% have "significant but subthreshold" depressive symptoms, but less than half of depressed seniors have responded to antidepressants in controlled trials. High rates of treatment failure in late-life depression suggest that it has diverse etiologies that have to be identified and targeted to improve outcomes, Dr. Brown said. Frailty, characterized by slowed gait, weak grip, and decreased physical activity and energy, resembles and often co-occurs with late-life depression, giving rise to the concept of a "depressed-frail" phenotype at potentially greater risk of imminent death, he added.

To test that idea, Dr. Brown and his associates analyzed 10-year longitudinal data for 3,075 adults 68 to 80 years old who were free from significant disabilities or functional limitations at baseline. These participants were from the Dynamics of Health, Aging, and Body Composition study, which annually measured body composition, gait, grip strength, comorbidities, and other clinical data. Using a method called latent class analysis, the researchers examined trajectories of depression (defined as a score of at least 10 on the Center for Epidemiologic Studies Depression Scale), slow gait (walking speed less than 1.02 meters per second), and inflammation (serum interleukin-6 levels above 3.24 pg/mL) over time. They also used multivariable regression to understand how each of those features correlated with mortality.

The latent class analysis showed that 22% of participants had either rising or consistently high probabilities of inflammation, slow gait, and depression. Slow gait was associated with inflammation and depression. Inflammation was independently associated with mortality, while slow gait was linked to mortality only in participants with depression that worsened over time. Among the 247 patients with a high level of inflammation and slow gait with increasing or a consistently high level of depression, the 10-year mortality was 85%, the highest of any group of patients in the study, Dr. Brown said.

The study also confirmed the overlap between depression and frailty. Depression and inflammation each independently predicted slow gait, with odds ratios of 1.37 and 1.22, respectively. Slow gait also was a significant predictor of depression (OR, 1.27), even after the investigators accounted for age, sex, body mass index, comorbidities, use of anti-inflammatories, and scores on the Modified Mini-Mental State Examination.

These and other recent findings highlight frailty as a physical manifestation of greater biologic aging, Dr. Brown said. Accordingly, researchers are studying whether combating age-related deterioration can improve outcomes in late-life depression.

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Caring *for Consumers*

From Blue to Black: Is It Holiday Blues or Clinical Depression?

Caring *Editor in Chief Karl Steinberg, MD, CMD, HMDC, talks about how to tell if you or a loved one just have the blues or something more serious.*

With the holidays approaching, it isn't unusual for people to feel a bit of the blues. However, it is important to know the difference between feeling blue and being clinically depressed. Everyone feels sad or unhappy sometimes, but these periods of feeling blue are temporary. They often are related to a certain situation, such as a loss or other sad event or disappointment, and may dissipate fairly quickly. However, if the blues drag on or you also feel things such as worthlessness, fatigue, loss of appetite, or hopelessness, you may have clinical depression. Depression is not a normal part of aging.

How can you tell if you have depression or are just feeling sad? When you're feeling blue, it usually goes away in a few days or weeks. If your feelings interfere with work or life, it's temporary; that is, you might miss a meal or turn down an invitation to play cards. Although you are sad, you understand that you'll likely feel better soon and you still have basic self-esteem and hope for the future.

Sometimes with depression, a loss of interest in activities — particularly those you once loved — can be the primary symptom. With depression, feelings of worthlessness, hopelessness, excessive or inappropriate guilt, and even suicidal thoughts are common. You may cry a lot, sometimes for no specific reason. Depression often leads to sleep problems, fatigue, difficulty thinking or concentrating, irritability, or significant weight loss or gain. If you have five or more of these symptoms for most of the day, almost every day for 2 weeks or more, you should seek help.

Depression can be treated. Your practitioner may prescribe medications such as antidepressants, or recommend referral to a psychiatrist to consider other treatments. Having depression does not mean you are weak. This is a real illness like arthritis or asthma, and it's not your fault that you have it. You need help, and this is nothing to be embarrassed about.

If you have the blues during the holidays, there are things you can do to feel better. Invite family and friends to visit, and participate in holiday activities. Enjoy favorite holiday music or movies. Talk to your practitioner or other team member about things that would cheer you up. For example, if you miss your dog, they might be able to arrange for your family to bring it for a visit. If you miss singing in the choir, they might be able to bring in some carolers or musical groups. Don't be afraid to ask for help making the holidays more fun.

Questions to Ask Your Practitioner

- How do I know if a loved one has clinical depression?
- What lifestyle activities may contribute to depression?
- What medications can treat depression? What side effects might they have?
- Are medications AND counseling necessary?

What You Can Do

- Tell your physician or other practitioner right away if you or a loved one has any signs of depression.
- Seek out activities and people that bring you joy and strength. Ask caregivers if you need help.
- Avoid alcohol and caffeine, especially if you are having trouble sleeping. Get sunlight and exercise.

For More Information

- Is It Depression or Just the Blues? http://wb.md/2ehptoS
- Feeling Blue Versus Being Depressed: What Is the Difference? http://bit.ly/2eho8OZ
- 10 Tips to Beat the Holiday Blues: http://bit.ly/2dYK4Nt
- Beating the Holiday Blues: http://bit.ly/2dxlEam

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