Dr. Debra Moser (00:08):

So I'd like to welcome you to the American Heart Association Getting to the Heart of Stroke podcast, titled Depression and Mental Health Post-Stroke. My name is Dr. Debra Moser. I'm a professor and endowed chair at the University of Kentucky College of Nursing.

(00:25):

Before we begin, let's review the learning objectives for the specific podcast. Those objectives are to discuss the effect stroke has on mental health, to describe how common depression is after stroke, to review who is prone to depression after stroke, and to summarize how depression is managed after stroke.

(00:46):

So we're very lucky today to be joined by two distinguished colleagues, Dr. William Hines, and Amy Towfighi. And I would like to let both of them introduce themselves. So Dr. Hines, let's start with you introducing yourself.

Dr. William Hines (01:00):

Yes, thank you. Dr. William Hines. I'm National Medical Director of Behavioral Health Services for HCA Healthcare and very excited to be part of this American Heart Association and American Stroke Association discussion.

Dr. Debra Moser (01:16):

Thank you. Dr. Towfighi, can you introduce yourself?

Dr. Amy Towfighi (01:20):

Thank you, Dr. Moser. Thanks for having me on. My name is Amy Towfighi. I'm a vascular neurologist. I'm professor of Neurology and Population Public Health Sciences at the Keck School of Medicine of USC. I also oversee neurological services for the Los Angeles County Department of Health Services and am the director of the Southern California Healthcare Delivery Science Center.

Dr. Debra Moser (01:45):

Great, thank you. And welcome to both of you.

Dr. William Hines (01:47):

Thank you.

Dr. Debra Moser (01:49):

We'll start with a first question, and this is for Dr. Hines. Can you talk to us about how stroke affects one's mental health?

Dr. William Hines (01:57):

Yeah, Deb. For folks who have a stroke, it can contribute to a variety of mental health issues such as exhaustion, which comes from insomnia often and can also be associated with depression. Apathy, anxiety can come post-stroke, including even having post-traumatic stress-like symptoms because there's always this concern about having a repeat of having a stroke after you've had an initial stroke.

(02:28):

So there's a variety of emotional reactions that people have, including depression as I said. People often will have difficulties because they won't be able to perform the activities that they typically have done in the past, what we call activities of daily living, and they'll become more reliant on their family members and caregivers. And obviously, this loss of independence can be a significant cause of depressed feelings for people leading to depression long-term. It can obviously impact their social relationships as well as their own perception of themselves and how they fit into the world.

(03:08):

So it's a complete game changer for many people in their lives. They can't often do the things that they used to enjoy doing, whether it be something as simple as sewing or going fishing or participating in recreational activities, being around family members at events may not be as easy as it once was. So there's this sense of social isolation that often goes along with it. And many people will experience even loss of employment over it because they're not able to do the jobs that they used to do. So all of this, kind of the aggregate of it, can lead to a significant effect upon one's mental health. And there are, as Dr. Towfighi will probably comment, that there are neurological changes that are related to the stroke that we don't really have a full understanding of, but these clearly do affect one's mental health.

Dr. Debra Moser (04:05):

Thank you. So huge impact on mental health. Thank you. I'll next turn to Dr. Towfighi to answer a question, just how common is depression after stroke?

Dr. Amy Towfighi (04:16):

After stroke, depression is fairly common. About one in three individuals experience depression at some point after their stroke. The incidence is higher in the first year and decreases with time. But because it is so common and can affect outcomes after stroke, including functional abilities as well as mortality, it's critically important to screen for and address depression after stroke.

Dr. Debra Moser (04:45):

Thank you. Important information. Let me ask you another question. So why do patients become depressed after stroke? Is it a reaction to the new disability or biological effects from the stroke?

Dr. Amy Towfighi (04:58):

It's likely multifactorial. So all the changes that Dr. Hines referred to definitely contribute to depressed mood, namely the functional and psychosocial changes that had happen after a stroke. In addition, there have been numerous biological factors that have been explored. However, none of them have become clear culprits of depression after stroke, but some of the things that have been explored include the location of the lesion, changes in brain perfusion, changes in neurotransmitters, as well as inflammation in the brain. However, the data is pretty heterogeneous and no single biological cause has been found. And so it's really likely to be a multitude of factors causing depression after stroke.

Dr. Debra Moser (05:58):

Thanks. Very interesting. And let me ask you another question. Can you talk to us a little bit about who might be at risk or more prone to depression after stroke?

Dr. Amy Towfighi (06:10):

So the most commonly cited risk factors that have been found in the literature include a history of prior depression or mental illness, a higher severity of stroke, physical limitations, cognitive impairment. However, there are numerous other factors that have been associated with depression after stroke, including poor social support, a family history of mental illness, anxiety, lower education, female/sex, lower socioeconomic status, the lesion location, prior stroke and personality style, especially individuals with traits of obsession or neuroticism. However, the data, again is pretty heterogeneous.

Dr. Debra Moser (06:59):

Great. So a broad range of people who might be affected, but still we don't have the complete risk factor profile.

Dr. Amy Towfighi (07:06):

Right.

Dr. Debra Moser (07:06):

It deserves a look in everybody. Let's go back to you, Dr. Hines, and talk a little bit about how depression after a stroke is managed.

Dr. William Hines (07:17):

Yeah, so treatment of depression for folks who have a stroke is very similar to patients who've not had a history of prior stroke and we treat in terms of them having depression. So in general, we use a combination of antidepressants and psychosocial interventions. These can span in terms of the psychosocial interventions. These could be anything from cognitive behavioral therapy to just general counseling. And both of these modalities, both the pharmacotherapy and the psychosocial interventions together have been shown to improve depression symptoms in post-stroke patients as they do in the general population.

(08:00):

There's really limited evidence whether we can use to provide recommendation for specific antidepressants to use. And clearly, the treatment needs to be in collaboration with the patient and consider comorbidity such as diabetes, if weight gain is a significant concern, or possibly hypertension and other comorbidities that people might have in terms of selection of antidepressant. And you also want to of course look at drug-drug interactions.

(08:32):

But additionally, the antidepressants, especially the SSRIs, have had positive outcomes in studies for the prevention of depression in post-stroke patients. But the use of preventive pharmacotherapy, so just starting someone on an antidepressant post-stroke is not fully supported in the literature. But family and caregivers will play an important role in the monitoring of how treatment affects folks.

(09:05):

It is recommended for post-stroke patients with depression definitely to start an antidepressant unless there's a true contraindication for usage. And there are specific treatments depending on age group in the elderly where you might use a combination of different psychosocial treatments such as a group life review treatment or group cognitive behavioral therapy. But in general, the thinking is, and the evidence shows, that the antidepressant in combination with some type of a psychotherapy is the greatest benefit. There hasn't been really any significant randomized controlled trials that have shown a true effect of what we would consider to be non-invasive brain stimulation, modalities such as TMS or ECT.

And I would just say that in general, you're looking at a combination of antidepressants along with the therapy.

Dr. Debra Moser (10:11):

Great, thank you. And then of course, to treat people, we have to recognize them. So could you talk a little bit about when and who should be screened for depression and what kind of instruments are available that are recommended for use?

Dr. William Hines (10:25):

Well, and I'm sure Dr. Towfighi would agree with this, is that all post-stroke patients really need to be screened for depression. It is recommended in the early management of stroke, but the specific timing and the setting in which you do that, it's unclear. So you've got the neurological effects of a stroke, which can include communication difficulties. You have emotional liability that people often have following stroke. These are barriers to the appropriate identification often of depression and post-stroke patients. But the effectiveness of screening is dependent on appropriate diagnosis, management, follow up. There's really not a gold standard screening tool for post stroke depression. There's a multitude of screening tools that can be used including what's called the Center of Epidemiological Studies Depression Scale, the 21 item Hamilton Depression Rating Scale. But probably the most practical to use for many people in most settings is going to be the Patient Health Questionnaire, which is called the PHQ-9. And it tends to be fairly easy to utilize in the clinic setting and often provides very robust results in terms of we can trust its findings. And we have good scales to show that.

(11:51):

So screening instruments for people who may have post-stroke, aphasia do exist. So there are sort of specialty screening tools that are used for that population. And they can include things such as the Stroke Aphasic Depression Questionnaire, which is the H10, and also the signs of depression scale for if someone has aphasia. But those are really what we use for the tools that we use for post stroke screening of depression.

Dr. Debra Moser (12:29):

Great, thank you. Just let me ask you an additional question maybe for both of you. So given my experience in this area of depression, particularly in patients with cardiovascular disease, that depression is very commonly under-recognized and then under treated. Do you find that same situation in stroke that we just don't recognize it enough?

Dr. Amy Towfighi (12:52):

Yes, absolutely. A lot of clinicians just view it as just a natural response to the stroke and the disabilities that ensue. Very few health systems have robust screening systems in place with adequate referral mechanisms to ensure that patients receive the care that they need. So the first step is really broadening the awareness of clinicians and patients and their family members about how common and treatable depression is after stroke. And the second is really developing an infrastructure to be able to refer patients to get appropriate treatment.

Dr. William Hines (13:33):

And just to piggyback on Dr. Towfighi, I mean, when you have a statistic such as one in three post-stroke patients have depression, definitely the balance ways in going ahead and screening all folks post-stroke

for depression because the PHQ-9 is a screening tool, as I said, is extremely easy to give folks and gives you pretty good indication of whether someone may have depression and whether it could be a moderate to severe case. For the ones that may seem to be less intense, you can always initiate potentially psychotherapy if a patient or their family members don't feel very comfortable with the usage of antidepressants. But definitely the antidepressants would be indicated certainly for moderate to severe depression, no doubt about it.

Dr. Debra Moser (14:30):

Excellent. Thank you. And given the potential long-term effects on recovery and future stroke of depression, it really bears trying to recognize the situation more often in using better screening.

(14:45):

Let me just ask you, Dr. Hines, first, or both of you, if you think about some... If there are any takeaways from today's discussion you'd like to emphasize. So Dr. Hines, if you had to summarize one or two things that you really want people to remember from the discussion, what would they be?

Dr. William Hines (15:04):

Yeah, I would say that just, number one, all post-struck patients should be screened for depression. I think that would be a clear takeaway. And I would say that people should not shy away or providers shouldn't shy away from looking at starting treatment with potentially an SSRI. Of course, you need to look at the comorbidities that a patient may have. But generally speaking, we now have close to about almost 40 years of experience with SSRIs, and they really have been shown to have significant positive impact with a very low burden in terms of causing side effects for most people. And generally speaking, if people do have side effects, those tend to be remitting fairly quickly, so something like GI side effects if they're not. So those would be the biggest takeaways that I would probably have people focused on.

Dr. Debra Moser (16:11):

Thanks. And Dr. Towfighi?

Dr. Amy Towfighi (16:14):

And I would agree with what Dr. Hines said. I would just also add that depression is quite common after stroke, and it's really important to educate not only clinicians, but also patients and family members about how common and treatable it is.

Dr. Debra Moser (16:32):

Great. Great point about including caregivers in both recognizing and then bringing that to the attention of clinicians maybe when it's missed, otherwise. Thank you, both.

(16:43):

I need to finish with a statement about HCA Healthcare and the HCA Healthcare Foundation. They are the national sponsor of Getting to the Heart of Stroke, and the views and opinions in this activity are those of the speakers and reflect the synthesis of science. So content should not be considered as the official policy of the AHA. And to get any additional information on this topic, please visit learn.heart.org for more education. Thank you and have a great day.