

Seconds can save brain cells.

Welcome to SBH Bronx Health Talk produced by SBH Health System and broadcast from the beautiful studios at St. Barnabas Hospital in the Bronx. Hello I'm Steven Clark

Stroke is the fifth leading cause of death in the United States. It kills about a 140,000 Americans annually and is the number one cause of disability. Recognizing the signs and acting fast can mean the difference between life and death. Quick intervention can also reduce the risk of long-term disability. With us today is Dr. Sarah Jamison, an emergency medicine physician at SBH Health System. Welcome Dr. Jamison.

Thanks Steve.

Now a lot of us have heard the acronym F.A.S.T. or FAST, which is known for identifying the signs of a stroke. What exactly do these initials stand for?

So FAST is an acronym for different symptoms that we would like people to recognize before they come in to be evaluated for stroke. So the "F" in fast stands for face, so if you have one side of the face that's drooping or unable to move that's the facial symptom. "A" stands for arms, if you have the inability to

move one or both arms. Speech is another one if you have delayed speech or slurred speech or just the inability to speak and then "T" stands for time, basically meaning we want it to be remembered to call the ambulance immediately, to not waste any time with getting the person into the hospital.

So I guess part of the problem is that if somebody is having an episode say they have a droop or they're not finding the right words or something they shouldn't just say 'Well you know it's happened before I'll get better.' They should get treatment right away.

Absolutely. We see very often patients will come in a little bit later, and I guess we'll speak about time and treatment, but patients will come in a little bit too late to receive a certain type of treatment and so with that it's very important to come in early and come in often if you do have symptoms.

Hoping that it goes away is not necessarily the best decision to make and I guess there are also more subtle signs as well.

What are some of those?

Correct. So some of the more subtle signs would be blurry vision which could affect people for different reasons at different times, but persistent and very sudden visual blurred vision is

something that is very concerning. Another symptom that's more subtle would be dizziness and not just dizziness where you feel a little bit lightheaded, but dizziness to the point that you're unable to walk straight, where you have to hold on to the walls to be able to stand up and maybe it even causes you some sort of nausea or even vomiting that's very concerning and not to be mistaken for a stomach virus or something that could be a sign of stroke which should of course bring you into the emergency room.

Now there are two different types of strokes, right? Explain those.

So there are two different types of stroke. One, the more widely known kind, is called an ischemic stroke. Ischemia or an ischemic stroke basically just talks about or really means that there is a loss of blood flow to certain types of or certain tissues in the brain and so with that blood loss there's no oxygen for the tissue. The second type of stroke is a hemorrhagic stroke which is essentially when a blood vessel bursts in the brain for lack of a better description and it basically causes bleeding in the brain. However, it can have the same loss of tissue function that an ischemic stroke would have.

I guess as an emergency room physician it's all about time.

Correct, it's all about time so, as I alluded to a little bit earlier, we do have a certain treatment for certain types of strokes or rather for ischemic strokes, but we can only give that medication within a certain amount of time so within four to six hours is a recommended amount time spent between the onset of symptoms and treatment for what would be the amount of time that we need four to six hours like I said so time is tissue time is brain which is what we really would like for our patients to know so even if the symptoms start and you again are waiting for them to get better that's actually hurting more than helping it. It kind of robs us of the ability to give the medication that we need to help.

OK, so again either you or a loved one or someone on the street suddenly displays these symptoms, these signs, they may have a stroke what should they do?

Well, the T in fast stands for time meaning waste no time calling the ambulance and getting the patient over to a hospital. It's not helpful to give aspirin. I know a lot of people will do that outside of the hospital in an attempt to try to help because that's something that's recommended when you think someone's having a heart attack. Unlike heart attacks, with strokes because you could have a hemorrhagic stroke or a bloody

stroke if you will, aspirin increases your bleeding which would make it worse so unless we know whether or not this person is having an ischemic stroke or a hemorrhagic stroke we can't give any medication because we don't want to make the problem worse. So not giving any medication, avoiding treating someone on your own, would be the most helpful. Just call the ambulance and get the patient over to the emergency room.

Is one stroke worse than the other?

Yeah, hemorrhagic strokes are worse from what I hear. They're more deadly. They cause a lot more complications than an ischemic stroke in my opinion because it causes a lot of increase in the volume of the brain you're at risk for a lot of other problems like decreased breathing. So with hemorrhagic strokes more often I'll have to intubate or rather put the patient on life support so that they don't stop breathing, whereas with ischemic strokes you can see this you can see the same exact thing it's just that hemorrhagic strokes for whatever reason are just a lot more difficult to recover from. We see a lot more ischemic strokes, which are the equivalent of a heart attack but in the brain so a lot of people will I guess intertwine or use the word stroke and heart attack interchangeably. They occur in two completely different organs.

Who is the most likely candidate for a stroke?

The most likely candidates for strokes are of course people who are a little bit older, middle-aged and the elderly, those who have vascular issues and when I say vascular issues that includes hypertension that can include diabetes, that can include peripheral vascular disease because the stroke essentially is a disease of the vessels but in the brain and so those are patients who have other issues with their vessels or with their heart and are more likely to have risk to developing a stroke.

OK, so as an emergency room physician do you get called ahead that the stroke patient is coming to the hospital?

Yes, more often than not we will get phone calls from EMS to let us know that a stroke is coming to the emergency room and then we're able to prepare.

OK, so what does that mean as far as the preparation goes?

So preparation for a stroke before it comes in basically means that the treatment team is going to rush to the resuscitation area where the patient will come in for us to do a very focused history and a very focused physical exam. it also allows us to make sure that our cat scan on the suite or the radiology suite is open

and clear so that the patient can within 15 minutes of coming to the emergency room make it into getting the cat scan. The cat scan is extremely important because again it lets us know whether or not we're dealing with an ischemic versus a hemorrhagic stroke, which is very important because the treatment is extremely different and so that's information that we need to get much sooner than later.

Let's talk about the treatment you mentioned earlier that TPA is not like a wonder drug that everyone gets when they're suspected of having a stroke.

Right, correct. So we do have a medication for strokes it is called TPA. It's a medication that is only used for ischemic strokes, the reason being that TPA is a medication that essentially eats up any clots that are in the body and namely any clots that are causing your stroke. So TPA is a good drug in the fact that it can help people recover from ischemic strokes if they have very serious symptoms. Because of that the downside is that the way TPA works is that it essentially causes bleeding in the body and you can't control when, where and if it causes bleeding in the body so it is a drug that has a lot of risks as well as a lot of benefit. It's a very effective drug, but also it can be a very dangerous drug as well.

So if you don't give TPA, what do you do?

Well with strokes that you are not able to give TPA – and there are a lot of factors that go into whether or not that patient can get TPA – the biggest treatment for strokes that are not treated with TPA is really rehab, physical therapy, occupational therapy, basically re-teaching that person how to do certain functions that they may have lost because of this stroke. So one of the things that has been very well studied and very well confirmed is that patients who suffer from strokes one of the determining factors of having a good outcome is really the nursing care that is associated with that patient during their hospital stay. So nurses who are very mindful to get the patient out of bed, to turn them to prevent certain hospital-acquired infections and basically take very good care of this person while they don't necessarily have full function, that care alone has been proven to really help the outcome and cause a better outcome for these patients.

What's a TIA? Why don't we discuss that?

A TIA stands for a transient ischemic attack and a TIA as I've heard it is called by our patients a mini-stroke. The reason why it's I guess considered to be a mini stroke is because it can mimic the symptoms of stroke but as the word transient

suggests it doesn't last permanently. It's something that the symptoms might come on lasts for about 15 minutes to an hour or even two and then go away on its own. The reason why TIA's are important when you speak about stroke is because TIA's are almost warning signals for a potential permanent stroke or a quote-unquote larger stroke. A TIA is almost your body's warning sign saying "Hey you know there might be some issue with the vessel in the brain and even though it's not something that's permanently affected right now or the vessel may not be permanently occluded or blocked up, it's something that could occur later on and become completely blocked or completely occluded and actually cause a real stroke." So for patients who do have symptoms that they are familiar with as TIA's, if you will, it's very important for even them to come in because it means that we can catch whatever deficit is going on sooner than later and prevent them from having a stroke.

How would you prevent it from becoming a stroke at a later date?

There are certain tests that are done to see what the underlying issue is. So some people might have, as I mentioned, certain blockages in their arteries or veins, particularly the carotid arteries, which are arteries in your neck essentially that supplies blood flow to the brain. If your carotid arteries have blockages,

whether they be partial or complete, that can cause decreased flow of blood to the brain and thereby can cause a stroke so some people have as I mentioned a partial occlusion in this vein and that can cause TIA's. If we know that we can or rather if we test the carotid arteries and see that they have a blockage before a partial blockage before it becomes a complete blockage then interventions can be done to prevent it from becoming a complete blockage and thereby causing a stroke.

For example, what are some of those interventions?

There is something called embolectomy where they basically go into the vessel and take out whatever would be occluding it. There is also another condition called atrial fibrillation which is basically a heart condition where the heart beats very fast and very very irregularly because of the irregular beating of the heart it can cause the heart to form blood clots. These blood clots are then thrown into the circulation by the heart and they can end up in the brain and that can cause a stroke so patients who have atrial fibrillation. The treatment for that, or rather the preventative measure for that, would be to put them on a blood thinner like coumadin or warfarin. Putting these patients on blood thinners prevents them from ever developing the clots and thereby again can prevent stroke. So stroke is not just an acute event as in yes it might happen one day you know upon

waking up or just all of a sudden, but there have been or there are usually a lot of events prior to a stroke that can be intervened on to prevent the stroke from having happen to begin with.

I guess the bottom line is if you think you may have a problem don't wait.

Exactly. A lot of people I think are pretty comfortable with just quote-unquote waiting for things to go away. Some things do, but others don't and you should really work with your doctor to figure out which symptoms are those that can wait to go away as opposed to those that need to be acted on.

Thank you Dr. Sarah Jamison. Thank you for joining us in SBH Bronx Health Talk. For more information on the treatment and prevention of stroke or other services available at SBH Health System visit us at www.sbhny.org.