

Mayo Clinic Podcast - Dr. Gabor Bagameri - YouTube Audio - ...

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SUMMARY KEYWORDS

aortic aneurysm, aneurysm, thoracic aortic, mayo clinic, aortic, aortic valve, aorta, surgery, patients, emergency surgery, symptoms, rupture, blood, problem, disease, cardiologist, genetic, present, cardiac surgeon, sudden death

SPEAKERS

Dr. Gabor Bagameri, Narrator, DeeDee Stiepan

- N** Narrator 00:00
Coming up on Mayo Clinic Q&A:
- D** Dr. Gabor Bagameri 00:03
In the United States alone the aortic aneurysm is responsible for approximately over 50,000 deaths annually.
- N** Narrator 00:09
A thoracic aortic aneurysm is a weakened area in the major vessel that carries blood out to the body. When the aorta weakens, blood pushing against the vessel wall can cause it to bulge like a balloon or what's called an aneurysm.
- D** Dr. Gabor Bagameri 00:21
Unfortunately, the aortic aneurysm most of the time is this silent killer.

D DeeDee Stiepan 00:26
Welcome everyone to Mayo Clinic Q&A I'm DeeDee Stiepan sitting in for Dr. Halena Gazelka. A thoracic aortic aneurysm is a weakened area in the major blood vessel that feeds blood to the body. When the aorta is weak, blood pushing against the vessel wall can cause it to bulge like a balloon. This is called an aneurysm. And depending on the cause, size and growth rate, your thoracic aortic aneurysm treatment options can vary. Joining us to discuss is Mayo Clinic Cardiovascular surgeon, Dr. Gabor Bagameri. Welcome to the program. Thanks for joining us.

D Dr. Gabor Bagameri 01:02
Thank you for the invitation.

D DeeDee Stiepan 01:03
Of course. So, let's start with how common is this problem?

D Dr. Gabor Bagameri 01:06
So, in the United States alone, the aortic aneurysm is responsible for approximately over 50,000 deaths annually. If you put it into context, it's probably then 19th leading cause of death in all ages, and probably the 15th leading cause of death about age of 65. Now unfortunately, this number is probably underestimating the true burden of the aortic aneurysm. Most of the time this aortic aneurysm is sudden onset presenting with most commonly death. So, it's falsely misrepresented as a heart attack or their standard reason of sudden death. So, if you look at the autopsy series, probably behind the sudden deaths, approximately 2 to 9% of the sudden death is related to the aneurysm.

D DeeDee Stiepan 01:47
Okay, and so are there any signs or symptoms patients should be aware of, or is this kind of a silent condition?

D Dr. Gabor Bagameri 01:54
Unfortunately, the aortic aneurysm most of the time is a silent killer. It's very insidious, it's asymptomatic. When it causes symptoms, it's usually when it represents as an acute aortic syndrome, meaning tear or rupture, and then needs emergency treatment. Sometimes they can be noticing some other symptoms and if the aneurysm gets bigger, it

can cause compression in the surrounding structures. Some people can present with some dysphasia, difficulty swallowing, it gets compressing, or difficulty breathing, or maybe compressing some nerves. But unfortunately, most of the time the aneurysm, until it gets to the tipping point when it becomes unstable, it can cause an aortic syndrome, it's mostly asymptomatic.

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DeeDee Stiepan 02:33

And so, you've pretty much touched on this, but if you could just reiterate the danger of having a thoracic aortic aneurysm?

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Dr. Gabor Bagameri 02:41

The problem is I tell my patients similar like a balloon, the bigger it gets, the balloon is going to weaken. And at some point, that the structural integrity will be compromised, most of the time it can cause rupture, and it unfortunately suddenly ends up with sudden death. Or even here when you get very sick, and you need emergency surgery or care.

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DeeDee Stiepan 03:02

Great segue into the next question, which is how is this condition managed? Is it watchful waiting, preventative surgery, or is this an emergency surgery situation?

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Dr. Gabor Bagameri 03:12

So, if we know that somebody has aortic aneurysm, then when it reaches certain size, we recommend that you seek out the cardiologist who is experienced managing thoracic aortic aneurysm, or surgeons who is comfortable and doing a lot of aortic surgery. Most of the time we are following serial imaging and then we operate when it gets to the point when the risk of rupture gets higher than the risk of surgery. Now in emergency settings, when it's sudden onset, you didn't know about it. Most of the time, unfortunately, it happens in the emergency settings, and you have to rush to the local emergency room. So, if you have, the most common presenting symptoms, the most commonly is pain, sudden onset of chest pain. Of course, many other medical conditions can present with the similar symptoms but probably the most common and present in symptoms.

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DeeDee Stiepan 03:55

Let's talk about how or why does this occur in some people, are there risk factors?

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Dr. Gabor Bagameri 04:00

So, there are multiple etiology right, aortic aneurysm can happen. The aorta is the largest vessel which you can order fresh blood and it's slowly tapering. It starts at the at the heart and it travels upwards and turns and gradually tapers. As you're getting older, from mid adulthood to the late adulthood, there's a slow progressive growth in everybody. The measurement of the aneurysm is sporadic or degenerative. Meaning there is no known risk factors apart from the known underlying atherosclerotic risk factors like hypertension, hyperlipidemia. Some people, especially men that present aneurysm before the sixth or the seventh decades in their 30s or 40s. There is always have a high index of suspicion, maybe they have underlying genetic predisposition.

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DeeDee Stiepan 04:46

And that's what was my next question was going to be, is this genetic or hereditary? Should other first degree family members be tested?

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Dr. Gabor Bagameri 04:54

So, that's a very good question. As I said before, the majority, probably over two-thirds are sporadic, no non-genetic predisposition. But the younger person there is always, have to assume that maybe some underlying genetic. If it happens in a younger age, it's always good to get a full evaluation, cardiology and genetic. There are certain genetic testing panels available. Currently we have probably over 20 genes we can test and then as year goes by, we always discovering more and more. If you have known family members who had previous aortic aneurysm, needed surgery, or had dissection, needed emergency surgery, it's always good to get first degree relatives and sometimes even the second-degree relatives because it can skip generation to get the screening test and most commonly, probably the first screening tool is a non-invasive echocardiogram is a very good screening tool.

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DeeDee Stiepan 05:43

Okay, that's very good to know. Tell us about how the aortic valve may also be affected.

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Dr. Gabor Bagameri 05:50

So, the first part of the aorta, when it starts at the heart is called the aortic root where the aortic valve sits. Normally, most of our aortic valve is if you have a tricuspid aortic valve, and if you look and pause, look at the valve it looks look should look like a Mercedes sign.

There are very common congenital problems with the aortic valve, and the most common is the bicuspid aortic valve. It's hereditary, in 1 or 2% of the population, it's very common. Most people don't know about it. Sometimes it can be misdiagnosed, because early in the life, they hear some innocent murmur. And it's always a state of suspicion that you might have bicuspid aortic valve. And with a bicuspid aortic valve, there is some association increased risk of aneurysm formation. It's not as bad like the other connective tissue disorder like the Marfan disease, but it's also good to know if you know that somebody in your family had like a bicuspid aortic valve, bicuspid aortic valve, then definitely the first-degree relatives they should be screened, not just for bicuspid valve itself, but for the associated aortopathy, like aortic aneurysm.

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DeeDee Stiepan 06:50

Could you talk about Mayo's approach to treatment, what types of surgery are offered?

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Dr. Gabor Bagameri 06:55

So, at Mayo Clinic, we offer a whole wide spectrum of aortic surgery including open or endovascular minimally invasive surgery. Our approach is we have a multidisciplinary approach. So, it's with multiple specialties with a very close collaboration. Thoracic aortic clinic, when the patients are seen and a treatment team include the cardiologist, of course, the cardiac surgeon. Most of the patients, especially the genetically driven diseases, they have other musculoskeletal problems, orthopedic surgeons, they can have eye problems, so often ophthalmologists, and last but not least, also the genetic evaluation, advising predisposition, and they can advise you about the genetic testing and its implication, especially for your offspring, and also the radiologists who are reading the different imaging studies and these radiologists are specifically trained in reading of cardiac and aortic disease.

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DeeDee Stiepan 07:52

Very good. Dr. Bagameri, is there anything else that you think is important for patients to know?

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Dr. Gabor Bagameri 07:57

I think it's important to, it's common, but obviously it's not everyday. Most of this aneurysm is discovered incidentally. Nowadays the imaging is a more widespread. Going to the doctors you sometimes you have an echocardiogram, and they get an incidental finding. The most important when your aorta is enlarged, especially men it gets about four

centimeters, and in normal adult the aorta shouldn't be larger than four centimeters, and it gets to that point, I think you should seek medical attention and get connected already to cardiology. So, cardiac surgeon who is expertise and really focusing on this disease. I recommend that patients should go in centers when they are doing a high volume of these surgeries, and they have a close multidisciplinary approach, not just a cardiologist or cardiac surgeon, but they're all specialties. Because this patient needs lifelong surveillance, and not just replacing the aorta but you know, blood pressure management, etc.



DeeDee Stiepan 08:52

Our thanks to Mayo Clinic cardiovascular surgeon, Dr. Gabor Bagameri. Thank you so much for joining us today.



Dr. Gabor Bagameri 08:58

Thank you for the invitation.



Narrator 08:59

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