

**TOM ROOK:** Hello, I'm Tom Rook. I'm a professor of medicine at the Mayo Clinic in the Gonda Vascular Center. And we're here today to talk about fibromuscular dysplasia, which we will refer to as FMD as we talk.

FMD is a disease that is gaining increasing attention in the media. There's recently been a number of big articles written in the lay press about it. And it's something that we're here to discuss today because it's a problem that we don't really know as much about it as we wish we did.

Fibromuscular dysplasia refers to an abnormality in the blood vessels that affects anywhere from 1% to 5% of people in the United States. These changes in the blood vessels cause narrowings, and weaknesses, and other problems that can predispose in some patients to very serious conditions, conditions like blockages in the arteries, conditions like tears in the arteries, which we call dissections, or problems in which parts of the artery balloon out. We call these aneurysms.

The vessels that are most commonly affected by fibromuscular dysplasia are the renal vessels, the kidney vessels. But somewhere close behind that are vessels like the carotid arteries in the neck and even vessels like the heart. In fact, we think that just about any blood vessel in the entire body can be affected by this condition. Unfortunately, we don't know enough about it to even know why some people get it.

Is this a genetic condition that they're born with? Is this something that is acquired over time? Is this caused by something in the environment? We're only now learning about this. One of the great advantages of working at the Mayo Clinic is that almost everything we tackle is tackled in a multi-disciplinary way. So we have a number of different people here at Mayo that have made a focus on studying and treating patients with fibromuscular dysplasia.

In addition to myself, there's Rob McBane the head of our vascular medicine group, Cindy Felty, one of our nurse practitioners, Sanjay Misra from the radiology department, and really a host of others. One of the big things that we concentrate on is being able to have different people from different disciplines, medicine, surgery, radiology, all come together and give input on patients that have this problem.

So that's what's really unique about the way we do it at Mayo. In terms of the number of patients that we treat, we probably see anywhere from dozens to hundreds of patients with this condition. Again, we're only learning about how prevalent it is now. So the more we look for it, the more we're beginning to find patients that have it.

Fibromuscular dysplasia is interesting among vascular diseases because it tends to appear at a much younger age than some of the other vascular conditions. So it's actually not uncommon to see people in their teens, or their 20s, or their 30s coming in. And some of this may be the majority of the patients we see, are younger patients. However, it clearly can exist in the older population as well. To what extent it occurs in infants and small children, we just really don't have a good handle on that.

With fiber fibromuscular dysplasia, the things that can be used to treat it really depends on where the disease is, how badly the blood vessel is affected, and how great the need is to treat it. Medical therapies can't cure fibromuscular dysplasia, but they can be used to treat things like high blood pressure, which we think is a serious side effect of it and may even contribute to some of the problems caused by fibromuscular dysplasia.

If the disease has caused the arteries to narrow so much that there is a true blood flow problem and the blood can't get through the narrowed or blocked arteries, we have treatments like balloon angioplasty, where we can put a catheter with a balloon on the end into the artery and stretch it open.

We also have to worry about some of the side effects or consequences of fibromuscular dysplasia, like aneurysms. And when these come along, we may need to fix these as well, often with surgical, formal surgical procedures. We are actually seeing these patients in a coordinated fashion in our vascular center right now.

Even though fibromuscular dysplasia is not a true vasculitis, meaning it's not an inflammatory condition of the blood vessels, at least as far as we know, we have a vasculitis clinic in which the people who work there are very interested in seeing these patients. So we do have formal ways of getting them in to one practice. We are trying to limit the number of practitioners that see these cases, because they're rare. This way a few people can see a maximum number of cases and become really expertise in this area.

One of the things that we're involved in is we're part of a national network that is trying to track, and study, and follow these patients. So we're working here at Mayo to enter patients into a large national registry. One of the big problems we have with fibromuscular dysplasia, in addition to the fact that we don't know how common it is, and we don't know what causes it, we also have the problem that we don't know what happens to people with it over time.

If you ask me, gee doc, I've got fibromuscular dysplasia, what will become of me in five years, or 10 years, or 20 years, we can't answer that question right now. But by enrolling people into a registry, where we can follow them over time and keep tabs on them, we're going to learn about what happens to patients over time, and whether the things we're doing to try to help them really work. That's one of the advantages of coming to a place like Mayo, where we're actively studying this problem.

Well, one of the valuable community resources that's out there for people with fibromuscular dysplasia is a group called the Fibromuscular Dysplasia Society of America. We try to work closely with them whenever possible on linking people into their resource network. They have a lot of public information, support systems, and a way for people with fibromuscular dysplasia to keep engaged in a community of others with this same condition.

If you're interested in contacting us, coming to see us for an evaluation, or just getting more information, we have a website. You can click on the website below. Or you may wish to give us a call at the number below. These are all good ways of getting in touch with us.

Well, thank you very much. I've enjoyed talking to you. We look forward to having you come and visit and discuss issues related to fibromuscular dysplasia. Thank you very much.