

When you move into adolescence, then things can become a little more real when it comes to cardiovascular implications. So we still do carry over some of that potential arrhythmia burden, but as patients get older, you can also think about more advanced imaging strategies.

So I would not pursue cardiac MRI on an 8-year-old, for example, typically, unless I felt really comfortable that they could perform the study without sedation and whatnot. And so we just haven't really pursued it in younger patients. But in our adolescents, I think it makes a fair amount of sense because, as we see things on cardiac MRI that are consistent with Fabry phenotype, that might be a nidus to trigger enzyme replacement therapy, for example.

So in our later adolescence, we will do cardiac MRIs, and sometimes we do see evidence of LGE. And there is another imaging opportunity when it comes to MRI that we haven't really talked a lot about but we can talk about in other sections, is the idea of not giving contrast and looking for disease in the myocardium. So you can do a technique called native T1 imaging, which means you would do this imaging and acquire the information that you need without an exposure to gadolinium.

And that's important for a couple of things. One is that maybe you don't need the IV. You don't need the exposure. But remember, Fabry patients also have kidney disease many times, and there are certain GFR cutoffs, depending on your institution, where you won't be able to give gadolinium. So we have to be cognizant to be able to look on cardiac MRI in other ways, and that's one opportunity that we can use. And there are very characteristic findings of patients with Fabry that are very unique to that diagnosis compared to any other pathology that we see in the myocardium.