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Letter to the Editor

Different Aortic Root Diameters on Echocardiography and MRI During Pregnancy in Mosaic Turner Syndrome

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▸ See the article "Surprising Course of a Pregnant Patient With Mosaic Turner Syndrome" in volume 54 on page 425.

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We read with interest the article by Majdalani et al.[1] about a pregnant woman with mosaic Turner syndrome and balloon valvuloplasty in childhood who had asymptomatic aortic root dilatation at 32 weeks' gestation. On transthoracic echocardiography (TTE), the aortic root diameter was 45 mm (parasternal long axis) or 48 mm (short axis) and on cardiac magnetic resonance imaging (MRI) 65 mm.[1] The study is excellent, but some points should be discussed.

The first point is that differential causes of aortic dilatation have not been sufficiently excluded. In a patient with progressive aortic root dilatation, it is essential to also exclude a second disorder such as Marfan syndrome, Ehlers-Danlos syndrome, familial thoracic aortic aneurysm syndrome, bicuspid aortic valve, atherosclerosis, aortic arteritis, aortic dissection, trauma and syphilis. Did the patient have hyperextensible joints? Was there any evidence of acromegaly, aneurysms, pectus carinatum, mitral valve prolapse, scoliosis, hindfoot valgus, glaucoma or retinal detachment? Does the patient have classic risk factors for atherosclerosis? Was the venereal disease research laboratory test positive?

The second point is that there is a significant difference in the diameter of the aortic root measured by TTE and cardiac MRI.[1] What is the reason for these significant differences between the TTE and cardiac MRI measurements?

The third point is that it was not reported whether the aortic root ectasia was still present after delivery. Was there any evidence that the aortic root ectasia was actually just a compensatory mechanism and normalized after delivery? How large was the aortic root diameter after delivery? What was the latency period between TTE and cardiac MRI? Why was valve replacement and aortic prosthesis surgery not performed?

In summary, this interesting study has limitations that put the results and their interpretation into perspective. There is a need to explain the different measurements of aortic root diameter using different techniques and to exclude causes of aortic root dilatation other than Turner syndrome.

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