Letter by Stöllberger and Finsterer Regarding Article, “Reversible De Novo Left Ventricular Trabeculations in Pregnant Women: Implications for the Diagnosis of Left Ventricular Noncompaction in Low-Risk Populations”

To the Editor:

With interest we read the article by Gati et al1 who detected the development of left ventricular hypertrabeculation/noncompaction (LVHT) in 25% of pregnant women by serial echocardiographies, which resolved in 73% postpartum. These findings challenge the hypothesis that LVHT is attributable to a disturbed compaction process of the embryonic heart. Acquired LVHT has previously been reported in nonathletes and nonpregnant patients, the majority of whom experienced a neuromuscular disorder.2,3 Thus, it would be of interest if any of the women who developed LVHT experienced a neuromuscular disorder or if neuromuscular disorders were found in their families. Although the study suggests that LVHT can be acquired, it has frequently been associated with genetic disorders and found in other family members. Were relatives of the pregnant women with LVHT systematically investigated for LVHT to completely rule out a hereditary cause? Were these previous investigations systematically screened for LVHT?

The authors hypothesize that LVHT occurs in response to physiological changes in pregnancy. Because anemia is a frequent finding in pregnancy, it would be interesting to know the prevalence of anemia in women with and without LVHT.

Five of the 6 women with persistent LVHT in the postpartum period were aged ≥34 years. Thus, it would be interesting to calculate whether development or persistence of LVHT increased with age.

Did the outcomes of pregnancy and prevalence of problems during delivery differ between women with and without LVHT? Was LVHT or any other cardiac or noncardiac abnormality diagnosed in their babies?

Lactation and oxytocin levels influence the cardiovascular system.4 Was the regression or persistence of LVHT dependent on breast-feeding in the postpartum period?

It should be clarified at which time in the first trimester the echocardiography was carried out and whether the number of trabeculations at the first echocardiography was associated with the development of LVHT during pregnancy.

For diagnosis of LVHT, the Jenni criteria and Chin criteria were applied. How do we explain the low interobserver agreement for measurements when the Jenni criteria were applied? Would the prevalence of LVHT in the investigated patients change if other criteria such as those by Stöllberger et al4 were applied?

Will the women who developed temporarily or persistent LVHT remain in cardiologic observation? Because we do not know much about that abnormality, we recommend follow-up. It is mentioned that 1 woman with persisting LVHT became pregnant again and was excluded from the analysis. What was the outcome of this woman? Did LVHT further expand during the second pregnancy, or did it remain stable?

This interesting study shows that de novo LVHT occurs during pregnancy. However, as long as no follow-up data, neurological investigations, and family investigations are available for these patients, we consider it premature to conclude that these women belong to a “low-risk” group.

Disclosures

None.

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References


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_Circulation._ 2015;131:e425
doi: 10.1161/CIRCULATIONAHA.114.012305

_Circulation_ is published by the American Heart Association, 7272 Greenville Avenue, Dallas, TX 75231
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Print ISSN: 0009-7322. Online ISSN: 1524-4539

The online version of this article, along with updated information and services, is located on the World Wide Web at:
http://circ.ahajournals.org/content/131/18/e425

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