

## Safety concerns in pregnancy

Emre Yalcinkaya,<sup>1</sup> Murat Celik,<sup>1</sup> Baris Bugan,<sup>2</sup> Uygur Cagdas Yuksel<sup>1</sup>

<sup>1</sup>Gulhane Military Medical Faculty, Department of Cardiology, 06018, Ankara, Turkey. <sup>2</sup>Malatya Army Hospital, Department of Cardiology, Malatya, Turkey.

Email: dremreyalcinkaya@gmail.com  
Tel.: 905336577191

To the Editor,

We greatly enjoyed reading the article by Roscani et al. (1) titled "Congenital aneurysmal circumflex coronary artery fistula in a pregnant woman." In the article, the authors presented a case report of a congenital aneurysmal coronary artery fistula to the right ventricle in a pregnant woman and discussed the appropriate management. We have some concerns about the article.

During pregnancy, immediate invasive cardiac procedures have highly time-responsive benefits, and these benefits might be lost due to unnecessary delays. Thus, these procedures should not be completely denied; rather, whether they are performed should depend on the state of the pregnancy. Concerns related to the safety of these invasive tests must be balanced against the importance of accurate diagnosis and proper assessment of the pathologic state (2). Additionally, cardiologists must consider the clear indications and limitations of each type of diagnostic imaging test and avoid potentially harmful effects to protect the fetus. Potential adverse outcomes due to radiation exposure during pregnancy include teratogenicity, genetic damage, intrauterine death and increased risk of malignancy, especially increased risk to the fetal thyroid from radioiodine exposure after 12 weeks of gestation (3). The need for invasive radiological procedures in the diagnosis of cardiac diseases has been markedly reduced due to developments in imaging technologies that use non-ionizing energies. Nonetheless, imaging modalities that do not use ionizing radiation, such as magnetic resonance imaging (MRI), are preferred for pregnant women (4).

The benefit-risk balance assessment for cardiac catheterization during pregnancy should be performed properly for

both mother and fetus. MRI should be considered for cases in which the results of echocardiography are inconclusive and patient management mainly depends on results from further imaging modalities (2). Contrast media should only be given intravenously when a compulsive clinical indication exists and the potential benefit to the mother overbalances the potential risk to the fetus (5). In the above-mentioned case report, the authors did not report any potential benefits of cardiac catheterization to detect an asymptomatic coronary fistula in a pregnant woman. Therefore, we strongly believe the use of cardiac catheterization should have been postponed until delivery because the patient was asymptomatic and did not have any signs of cardiac failure. Aspirin and endocarditis prophylaxis could have been considered, especially if the level of clinical suspicion in the case was high.

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