

## Invasive tests in pregnancy

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The letter to the editor "Safety concerns in pregnancy", written by Yalcinkaya et al. (1), was very interesting, questioning the real benefits of performing invasive tests during pregnancy. In particular, regarding the case report entitled "Congenital aneurysmal circumflex coronary artery fistula in a pregnant woman" (2), written by our group, the authors considered no benefit and suggested there may even be a potentially harmful effect associated with performing a hemodynamic study during pregnancy for the evaluation of an asymptomatic coronary fistula.

From our point of view, in this specific case, it was important to perform a hemodynamic study because the echocardiogram was not completely conclusive for the diagnosis of a coronary fistula and because there was a substantial risk of a differential diagnosis of anomalous origin of the coronary arteries (3). In the presented case, the echocardiogram showed a markedly dilated left coronary artery, which could indicate anomalous origin of the right coronary artery. It is known that anomalous origin of a coronary artery can induce ischemic events in both a mother and her fetus at the end of pregnancy and during the delivery period (4). Therefore, it was imperative to definitively discard the possibility of that harmful condition. An invasive hemodynamic exam is still considered as the

gold standard method to investigate coronary fistulas and anomalous origin of a coronary artery and can be performed with a very low risk to either the mother or fetus when the recommended precautions are observed, including appropriate abdominal lead coverage for the mother and minimized fluoroscopy time (5). Fortunately, in the case that we presented, cardiac catheterization confirmed the diagnosis of a coronary fistula, enabling clinical management throughout the time remaining until the delivery.

### ■ REFERENCES

- Yalcinkaya E, Celik M, Bugan B, Yuksel UC. Safety concerns in pregnancy. Clinics. 2013;68(4):4.
- Roscani MG, Zanati SG, Salmazo PS, Carvalho FC, Magalhaes CG, Borges VT, et al. Congenital aneurysmal circumflex coronary arteryfistula in a pregnant woman. Clinics. 2012;67(12):1523-5, [http://dx.doi.org/10.6061/clinics/2012\(12\)30](http://dx.doi.org/10.6061/clinics/2012(12)30).
- Angeline P. Coronary artery anomalies: an entity in search of identify. Circulation. 2007;115(10):1296-305.
- Zavalloni D, Belli G, Caratti A, Presbitero P. Anomalous origin of the left coronary artery from the pulmonary artery in an adult pregnant patient: surgical and percutaneous myocardial revascularization. Ital Heart J. 2005;6(4):348-52.
- Sharma UM, Aslam AF, Tak T. Diagnosis of coronary artery fistulas: clinical aspects and brief review of the literature. Int J Angiol. 2013;22(3):189-92.

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