

Mitral valvuloplasty during pregnancy

To the Editor:

We would like to congratulate Dr Andrade et al¹ for their study endorsing mitral valvuloplasty by balloon catheter for the treatment of mitral stenosis, since it is an effective and safe procedure during pregnancy. In our opinion, there are two aspects of their criteria for indicating this procedure that must be considered:

1. In women who wish to become pregnant. The analysis of large series has shown a complication rate in the indication of mitral valvuloplasty in asymptomatic patients that must be considered: 0.5% mortality, 1% cerebral embolism, 1% cardiac perforation, 2% valvular replacement for mitral insufficiency, and 15% mild-to-moderate mitral insufficiency.²

2. In patients classified as functional class I/II (New York Heart Association) during pregnancy. In the Heart Institute of the School of Medicine of the University of São Paulo, a study was made of 98 pregnant women with mitral stenosis, mitral valve area of 0.6 to 1.5 cm² (mean 1.1), who initiated their pregnancy in functional class I/II. The study demonstrated that 78 patients (80%) changed to functional

class III/IV during gestation, including acute atrial fibrillation in three patients. The first option was medical treatment with furosemide (40 g/day) associated with propranolol (60 mg/day) in 72 cases, and verapamil (120 mg/day) associated with digoxin (0.25 mg/day) in 6 cases. Electrical cardioversion was required in three patients. In 70 cases (90%), there was symptomatic improvement to functional class I/II. The 8 remaining patients (10%) who did not respond to treatment were referred for balloon-catheter mitral valvuloplasty: 7 of them improved symptomatically to functional class I/II and one developed severe mitral insufficiency that required mitral valve substitution. No maternal mortality was registered and three women had miscarriages, two of them after electrical cardioversion. We concluded that medical treatment was effective in pregnant women with mitral stenosis.^{3,4}

In summary, balloon-catheter mitral valvuloplasty is a procedure that is well tolerated during pregnancy, is safe for the fetus, and has a high success rate in selected mothers with mitral stenosis. However, in our opinion and in accordance with the Pregnancy and Heart Disease Committee of the Brazilian Society of Cardiology,⁵ this procedure should not be performed in asymptomatic patients who wish to become pregnant or in women under medical treatment who are in functional class I/II during pregnancy.

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REFERENCES

1. Andrade J, Maldonado M, Pontes S Jr, Elmec AR, Sousa JE. Papel de la valvuloplastia por catéter-balón durante el embarazo en mujeres portadoras de estenosis mitral reumática. *Rev Esp Cardiol* 2001;54:573-9.
2. Mazur W, Parilak LD, Kaluza G, Defekice C, Raize EA. Balloon valvuloplasty for mitral stenosis. *Curr Opin Cardiol* 1999;14:95-103.
3. Ávila WS, Grinberg M, Rossi EG, Cardoso LF, Da Luz PL, Pileggi F. Efficacy of clinical treatment for severe mitral stenosis in pregnancy. Maternal and fetal outcome. *Circulation* 1995; 92 (Suppl):517.
4. Ávila WS, Grinberg M, Decourt L, Bellotti G, Pileggi F. Evolução clínica de portadoras de estenose mitral no ciclo gravídico puerperal. *Arq Bras Cardiol* 1992;58:359-64.
5. Consenso Brasileiro sobre Cardiopatia e Gravidez. *Arq Bras Cardiol* 1999;72(Suppl 3):8-10.