Value of Magnetic Resonance Imaging in Functional Assessment of Baffle Obstruction After the Mustard Procedure

Maarten Groenink,1,2 Barbara J. M. Mulder,1 and Ernst E. van der Wall2

1Department of Cardiology, Academic Medical Center, Amsterdam, The Netherlands
2Department of Cardiology, Leiden University Medical Center, Leiden, The Netherlands

INTRODUCTION

Although excellent results have been reported on echocardiographic detection of postoperative sequelae after the Mustard procedure (1–3), baffle obstruction cannot definitely be ruled out in certain cases (3). This may be due to a combination of poor echo windows and the complex three-dimensional relationship of the intraatrial structures. Because it seems imperative to rule out baffle pathology in symptomatic patients (4,5), often additional angiography is required. In this case report we state that magnetic resonance (MR) examination may be an appealing alternative for angiography when echocardiographic examination is inconclusive or patients cannot endure transesophageal echocardiography (TEE).

CASE REPORT

A 23-yr-old woman with a history of Mustard procedure for complete transposition of the great arteries com-
DISCUSSION

Although TEE has been considered to be the diagnostic tool of first choice for the assessment of intraatrial baffles (6), MR imaging is gaining ground in this particular area (7,8). Introduction of cine GE imaging (8), velocity mapping (8,9), and, more recently, MR angiography with MR contrast agents (10) has strengthened the position of cardiac MR imaging, especially in the area of postsurgical follow-up of patients with congenital heart disease (9). MR imaging provides additional information about cardiac mass (11), blood flow (8), and extent of intracardiac shunts (10), which may be of clinical importance in patients with a history of Mustard procedure.

In this case, MR imaging could rule out baffle pathology and prevented an invasive diagnostic procedure where TEE failed to provide a definite diagnosis. Recently, improved MR technology and the widespread availability of cardiac-dedicated pulse sequences may require renewed comparisons between the different imaging modalities in addressing this clinical problem, especially between TEE and MR imaging.

REFERENCES


