than for other forms of atrial arrhythmias. Only one of three patients remained free of symptoms during the follow-up period. Recent reports have advocated the feasibility of radiofrequency catheter ablation in curing this arrhythmia.⁵ In their recent review on inappropriate sinus tachycardia, Krahn and coworkers⁶ stated that the therapy of this arrhythmia is empiric. Therefore we believe that considering the severity of symptoms and the failure of catheter ablation attempts, a decisive therapeutic approach in these patients, including cardiac surgery, is justified.

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RECURRENT INFECTIVE ENDOCARDITIS ONE YEAR AFTER MITRAL REPAIR IN A WOMAN ADDICTED TO DRUGS

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The presence of a prosthetic heart valve is one of the major factors associated with a shortened overall survival in patients with infective mitral valve endocarditis.¹⁻² Accordingly, mitral valve repair, which is technically possible in this setting, has increasingly been used, especially in those patients at risk of relapsing infective endocarditis.^{1,2} This approach, which was initially intended to limit the subsequent risk of reinfection associated with prosthetic valves, also provides an opportunity to treat medically the recurrent episodes of infective endocarditis. This option may be of value in the management of infective endocarditis in persons addicted to drugs.

A 29-year-old woman was admitted to the hospital for infective endocarditis. Three months before admission she returned to her intravenous drug abuse, which she had discontinued 1 year previously after a first episode of *Staphylococcus aureus* mitral valve endocarditis. At this

time, the other cardiac valves were not involved and there were no embolic events. The patient was given a 6-week antibiotic regimen consisting of methicillin and gentamicin with adequate determination of serum bactericidal titers. Both fever and inflammatory syndrome disappeared. In view of the severe mitral regurgitation resulting from a 2 cm perforation, the patient subsequently underwent mitral valve reconstruction consisting of repair of the posterior leaflet associated with implantation of a prosthetic annuloplasty ring (Duran No. 29). An echocardiographic examination confirmed that the anatomic result of the surgical procedure was good, with only mild residual mitral regurgitation.

The patient totally recovered and remained symptom-free until she was admitted again 1 year later with fever (39° C), chills, sweats, multiple skin petechiae, tachycardia, and a mitral regurgitation murmur. No signs of heart failure were observed, and she did not have hepatosplenomegaly. An electrocardiogram and a chest roentgenogram showed no abnormalities. Laboratory examinations showed polynucleosis (15,000/mm³), anemia (10.2 gm/dl), and a sedimentation rate of 90 mm at 1 hour. A methicillin-susceptible *Staphylococcus aureus* was isolated from blood cultures. Transthoracic followed by transesophageal echocardiography showed large valvular vegetations attached to the posterior leaflet of the mitral valve, which prolapsed within the left atrial chamber during systole, and a central mitral regurgitant jet. No annular abscess was seen (Fig. 1). Computed tomographic (CT) scans showed a large asymptomatic brain abscess (Fig. 2) and a renal-cortical abscess. A multiple-drug antibiotic regimen

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consisting of intravenous oxacillin (2 gm every 4 hours) associated with gentamicin (1 mg/kg every 8 hours), pefloxacin (400 mg every 12 hours), and rifampin (INN: rifampicin) (300 mg every 8 hours) was started. Determination of serum bactericidal titers showed adequate values. Gentamicin was discontinued after 3 weeks. Fever and petechiae disappeared, as did the renal abscess on the CT scan. Repeated CT brain scans showed progressive decrease in size of the brain abscess over 6 months, during which oxacillin, pefloxacin, and rifampin were maintained. Echocardiographic follow-up showed mild to moderate mitral regurgitation, no impairment of left ventricular function parameters, and no left ventricular enlargement. The size of the mitral vegetations slightly decreased over time. Finally, the patient totally recovered. She discontinued her use of illicit drugs and resumed her occupational activities without need for further surgery. Three months after stopping antibiotics, the patient remains well, afebrile, and free of all symptoms but has a persistent systolic murmur of mitral insufficiency.

[illegible]

Fig. 2. CT brain scan. Right parietal and temporal abscesses, with peripheral contrast enhancement (+).

for mitral repair in patients such as those addicted to drugs, who have an increased risk of infective endocarditis. The present report showed another advantage of mitral repair, because the absence of a prosthetic valve allowed successful medical therapy without subsequent need for surgery. We cannot be certain that the presence of a prosthetic cardiac valve in such a severe septicohemic state would have resulted in a worsened outcome, but it very likely would have.

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Commentary

Dr. Monsuez and colleagues are to be commended for the successful management of a difficult clinical problem. However, several cautionary comments are in order.

The experience with mitral valve repair in patients considered to be at risk for *relapsing* infective endocarditis is limited. Although mitral valve repair is associated with a higher overall reinfection-free survival than mitral valve replacement, as recently reported by Muehrcke and col-

leagues¹ in a series of 146 patients, the advantage of mitral valve repair over replacement was not conclusively demonstrated in the subset of patients with active (acute) endocarditis. The advantage of mitral valve repair in patients with relapsing endocarditis who are addicted to drugs has also not been demonstrated. Furthermore, as emphasized by Muehrcke and colleagues¹ and by others, comparisons of patients with infective endocarditis having valve replacement or valve repair can be misleading, particularly in the subset with active endocarditis. Nevertheless, mitral valve repair is a highly satisfactory technique for the treatment of infective endocarditis in appropriately selected patients and should be performed whenever possible.

For a patient with a third episode of staphylococcal endocarditis associated with large mobile valvular vegetations, mitral regurgitation, petechiae, brain and renal cortical abscesses, and persistence of large vegetations after a course of antibiotic therapy, a strong case could be made for mitral valve replacement. Freedom from recurrent infection 3 months after cessation of antibiotic therapy does not guarantee freedom from subsequent infection.

Until more information becomes available about the fate of patients who have had mitral valve repair for infective endocarditis and in whom reinfection develops (particularly with the complications described in this patient), I would urge caution in accepting the method of management described in this report as the treatment of choice.

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