Utility of Echocardiography in AIDS

To the Editor:

We have read with great interest the paper by Hecht et al in which they present the results of a study designed to evaluate the frequency of unsuspected cardiac abnormalities in acquired immunodeficiency syndrome (AIDS).1 This prompted us to report our results obtained performing M-mode and two dimensional echocardiograms on all AIDS patients admitted for treatment of any AIDS-associated tumor or infections complications.

We have evaluated 40 patients (27 drug abusers, nine homosexuals and four promiscuous heterosexuals) whose ages ranged from 23 to 30 years (mean 29 years). All fulfilled the CDC criteria for AIDS. We investigated the global incidence of cardiac abnormalities independent of the presence of cardiac symptoms or other evidence of cardiac disease.

In the group of intravenous drug abusers (27 cases), we found tricuspid vegetations in three, tricuspid regurgitation in three, pericardial effusion in three (minimal in two and severe in one, in whom it was secondary to M. tuberculosis), severe left ventricular disfunction (LVD) associated with moderate pericardial effusion in one, and moderate ventricular hypokinesia in another. Only one of these two patients with echocardiographic evidence of LVD was symptomatic. He had a pericardial effusion which was secondary to M. avium-intracellulare infection, as previously reported in another case.2

In the homosexual group (nine patients), we found only one patient with LVD. This also was the only case with clinical manifestations in this group. No other abnormalities were found. Over the remaining studied patients (four heterosexuals), no echocardiographic abnormalities were found. In summary, LVD, pericardial effusion, regurgitation or vegetations were detected in 12 of 40 AIDS patients (30 percent).

Our data suggest that echocardiographic findings in AIDS patients correlate well with clinical symptomatology or physical examination data. The other unsuspected echocardiographic findings are unrelated to the present clinical status and do not provide useful additional information for clinical care. Only occasional cases (one of 40) have asymptomatic ventricular dysfunction. So the indication for performing an echocardiogram in AIDS patients must always be established on clinical data, at least in the drug abuser population. In this group, pericardial disease is frequently due to mycobacterial infection. When additional homosexual patients are evaluated, we will be able to establish if we have the same frequency of asymptomatic echocardiographic abnormalities as found by Hecht et al in this group.

REFERENCES

To the Editor:

We read Dr. Romeu's letter with interest, but disagree with several of his points. We do not feel that the findings of tricuspid vegetations or regurgitation should be included in the overall incidence of echocardiographic abnormalities in the AIDS patients. These findings can be attributable to intravenous drug usage alone and should be excluded from analysis.

The incidence of left ventricular dysfunction reported in this study is lower than that found in our study and in others.3,4 Since the completion of our study, the incidence of echocardiographic abnormalities noted in AIDS patients in our laboratory continues to be high. The reason for the lower rate found by Dr. Romeu is not clear, but perhaps is due to random variation and will increase when additional patients undergo echocardiographic examination.

We do not advocate the routine use of echocardiography in all AIDS patients, and agree that the test should be performed when clinically indicated. However, we disagree with his assertion that this information is clinically irrelevant. As new therapies are developed for AIDS and life expectancy increases, these cardiac abnormalities will probably play an increasing role in morbidity, and possibly mortality, in this relatively young group of patients.

REFERENCES
1. Reilly JM, Cunnnion RE, Anderson DW, O'Leary TJ, Simmons JT, Lane HC. Frequency of myocarditis, left ventricular dysfunction and ventricular tachycardia in the acquired immune deficiency syndrome. Am J Cardiol 1988; 62:789-93