long must anticoagulants be maintained? Derumeaux et al. conclude that one of the predictive factors for a thromboembolic episode is the time since transplantation. What is their explanation for this finding?

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References

A reply
We read with interest the comments of Fernández González and Herreros concerning our article[1]. This letter is to answer their questions:

Question 1: We did not find any relationship between recipient atrial rhythm and the presence of atrial thrombi. At the time of the study, only seven patients demonstrated atrial fibrillation in the recipient atrium as proven by electrophysiological evaluation. Among these patients, only two had a left atrial thrombus.

Question 2: Thrombi were diagnosed 35 months after surgery at the time of the TEE study but several arguments support the fact that they occurred earlier. One of these arguments is the time at which thromboembolic episodes occurred. We recently reported on a larger series of transesophageal examinations comparing standard transplantation by the Lower and Shumway technique with total transplantation by the bicaval anastomosis[2]. We demonstrated that thromboembolic events occurred only in patients with standard transplantation and that five of the 11 thromboembolic events occurred within the first 6 months, suggesting therefore a very early formation of atrial thrombi. In this paper, we also demonstrated that bicaval orthotopic heart transplantation was highly effective in avoiding thrombosis and in restoring normal atrial function. We therefore disagreed with the conclusions of El Gamel[3].

Question 3: Regarding treatment, we used fluididone (international normalized ratio 2:3 to 3) and we replaced fluididone by tiapridone only if the thrombus had completely disappeared at the 6-month TEE control.

Question 4: In this series of 64 patients, statistical analysis was the only predictive factor for a thromboembolic episode; however, the time elapsed since transplantation was significantly higher in cases with embolism. One explanation for this observation is the fact that while the retained atria have rigid and fibrotic walls which are less compliant, therefore increasing blood stasis and promoting both spontaneous echo contrast and clotting in the left atrium. However, the statistical results depend on the series of patients. In a larger series (n = 75)[2], there was no predictive risk factor for thromboembolic events as regards time from transplantation, left atrial diameter, left ventricular ejection fraction and haemodynamic data.

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References

Implantable defibrillatory shocks
D’Avila et al.[1] report that changes in autonomic tone in the early morning play a role in the circadian variations of sudden death. The neurobiological manifestations are suggested by diurnal variations in serotonergic-mediated inhibition of dopamine lateralized to the right hemisphere. This hypothesis is supported by optimal response organization in

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intermediate dopamine tone in a medial-front-striatal activation system2 and by inhibition of the right hemisphere promoting dominance of the left hemisphere associated with cardiac arrhythmia, vasoconstriction3 and violence4. It is also supported by a report that anger attacks in eating disorders manifested by impulsiveness, a surge of autonomic arousal including such symptoms as tachycardia, sweating, flushing, and a feeling of being out of control, may reflect central hyposerotonergic function5. These findings prompt an evaluation of the neurochemistry6 of drug therapy designed to reduce cardiac mortality and alter the circadian pattern7.

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References

The human and feline sinus node
We read with great interest the splendidly performed study by Alings and his colleagues in the November 1995 issue of the Journal.9. There must be some mistake with the depiction of the sinus node shown in Figure 1. The authors state, quite rightly, that the node is located 'at the junction of the vena cava superior and the right

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References

A reply
We thank Drs Anderson and Ho for their interest in our study.

Ninety years after its first description, the projection of the only microscopically recognizable