LETTERS TO THE EDITOR

The Editor welcomes submissions for possible publication in the Letters to the Editor section that consist of commentary on an article published in the *Journal* or other relevant issues. Authors should:

- Include no more than 500 words of text, three authors, and five references
- Type with double-spacing
- Submit the letter electronically via the Internet to jtcvs@drexel.edu if possible
- For *nonelectronic* submissions, send a disk and three copies of the disk's content, a copyright transfer letter (see Table of Contents for location) signed by all authors, and a cover letter describing any conflicts of interest related to the contents of the letter

Letters commenting on an article published in the JTCVS will be considered if they are received within 6 weeks of the time the article was published. Authors of the article being commented on will be given an opportunity to offer a timely response (2 weeks) to the letter. Authors of letters will be notified that the letter has been received. Unpublished letters cannot be returned.

Cardiopulmonary bypass and severe drug intoxication

To the Editor:

I congratulate Pasic and colleagues for their successful case reported in the February 2000 issue of the *Journal* (2000;119:379-80), but I have some comments. The article concerns severe drug intoxication necessitating resuscitation and hemodynamic assistance. They chose conventional cardiopulmonary bypass (CPB) instituted via the sternotomy approach. The delay between the onset of the intractable electrical and hemodynamic instabilities and the beginning of CPB was 45 minutes. During this period the patient underwent external manual heart massage and mechanical ventilation. The time from the start of extracorporeal life support until the hemodynamic state became stable was 16 hours 43 minutes. The postoperative course was uneventful. In their discussion, the authors stated that the thoracic approach for CPB under these circumstances is preferable to percutaneous CPB, which can be instituted through the femoral vessels. This procedure does not require the chest to be opened, but it includes several important disadvantages, such as possible distention of the cardiac ventricles, ischemic leg complications, and hemorrhage.

Our experience with the same life-threatening events comprises 7 patients. All of them had severe acute intoxication with different cocktails of antiarrhythmic drugs with the possible intention of committing suicide. All patients were treated by peripheral CPB through the femoral vessels. The mean delay between the cardiac arrest and the beginning of CPB was 78.5 minutes, and the femoral-femoral bypass was performed while patients were being resuscitated with closed chest massage.

The first 3 patients had severe ischemic complications of the distal leg: 2 patients died and 1 patient underwent fasciotomy for a lower leg compartment syndrome. After that, distal limb ischemia was accomplished by a tube inserted distally into the superficial femoral artery and connected to the side port of the cardiopulmonary support arterial line. The mean flow was about 200 mL/min. The duration of reperfusion necessary to recover

normal hemodynamics was well correlated with the estimated half-life of the ingested drugs—56.8 hours. The late postoperative period was uneventful in all cases.

On the basis of our experience, we think that severe drug intoxication complicated by cardiogenic shock must be treated by temporary circulatory support. Because CPB can be performed while patients are being resuscitated with closed chest massage, the femoral-femoral approach is preferred; it is rapid and easy to accomplish in the operating room, emergency room, or intensive care unit. Concerning the problem of distention of the cardiac ventricles, we observe that the intoxication etiology does not compromise ventricular recovery. In these particular rescue situations, the key to success is the institution, as soon as possible, of femoro-femoral CPB associated with the prevention of distal limb ischemia. Without this therapeutic option, these potentially reversible drug overdoses will continue to be fatal.

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