lated through left brachial artery, and the authors mentioned that they performed the operation without circulatory arrest. Preferences the left brachial artery instead of right for cannulation site may limit the use of open distal repair technique when necessary. Our group has reported 104 cases of arch repair using right brachial artery where open distal repair was easily performed by reducing the flow and applying atraumatic vascular clamps to the innominate and left carotid arteries.2

The authors have reported using 20F cannulas during their two operations. According to our experience, a 20F cannula is too large for the great majority of patients. We preferred using the Calmed non–wire reinforced venous return catheter (California Medical Laboratories, Irvine, Calif), the tip of which can be trimmed to 16F to 18F diameter according to the size of the patients’ brachial artery due to its conical shape.

The authors suggest that the end of the inserted cannula should not extend beyond the origin of the subclavian artery to protect collateral circulation of the upper limb. We inserted the catheter into the brachial artery as its tip is positioned 5 to 7 cm proximal to the arteriotomy, which in most cases extended beyond the origin of the subclavicular artery, but this did not cause upper limb ischemia in any of our patients.

We are in complete agreement with the authors that the brachial artery is an easily accessible site for cannulation. In our current practice it is the standard for the repair of aneurysms and dissections of the aortic arch.

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Reply to the Editor:
We would like to thank Seref A. Kucuker and Oguz Tasdemir for their comments on our article. Unfortunately, when we sent our material to the editorial office we were not aware of their publication.1 The editorial office of the Annals accepted their publication on February 7, 2002, while the article sent by us arrived at the JTCS editorial office on May 3 of the same year.

Our surgical team started the experimental laboratory work for brachial artery cannulation in 1999 for the purpose of ensuring cardiopulmonary bypass and antegrade perfusion in the aortic arch, mainly in the acute aortic dissection operations. This was an interdisciplinary investigation carried out jointly with the Applied and Clinical Anatomical Laboratory, Department of Anatomy, Histology, and Embriology, from the Semmelweis University of Budapest (this laboratory is led by Dr Lajos Patonay); the clinical examinations were performed in the Hand Micrcirculation Functional Laboratory from the Medical and Health Science Center, University of Debrecen (Dr Zoltan Csiky and Dr Ildiko Garai). On the basis of the morphological and hemodynamical laboratory investigations results, in 2001 it became possible for us to ensure cardiopulmonary bypass just through brachial artery cannulation.2

In our first patient we carried out left-side brachial cannulation because in addition to the 2 femoral arteries, the right subclavian artery was also affected (namely, the pressure measured in the right side brachial artery was 50 mm Hg lower). In both cases we were able to use 20-F cannulas with the technique described by us (naturally this can vary between 16- and 20F-sized cannulas depending on the patient’s build).

It must be mentioned that during cardiopulmonary bypass the pressures measured in the arterial line are higher, therefore we always endeavored to use the thickest cannulas.

Despite there being no immediate clinical consequences from not maintaining the collateral circulation in the subclavicular artery, on the basis of the above-mentioned laboratory and clinical hand circulation examinations, we consider it important and worthwhile to position the cannula such that the collateral circulation through the subscapular artery is maintained. It is possible that longer reperfusion under normothermia could lead to temporary neurological complications due to the reduced hand perfusion.

Besides this, it is expedient to cannulate the brachial artery as distally as possible, so that the possible iatrogenic dissection caused by the cannula remains at some distance from the aortic arch. We are convinced that the manufacturing companies, jointly with the clinicians, will further develop the manufacture of this kind of cannula.

Again, we thank Kucuker and Tasdemir for their extremely interesting and valuable work.

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Medical resources and capital punishment To the Editor:
The editorial in the March 2003 issue of the Journal on heart transplantation for convicted felons1 made interesting reading. McKneally and Sade agreed that human life should be preserved without question. A similar dilemma confronted me once, when a prisoner awaiting death sentence was brought in for a valve replacement while his application for mercy was being considered. Irrespective of his clinical status, he would later be hanged to death. The dilemma was whether we were doing the right thing in replacing the valve so that he could face his death sentence soon. Would it have been preferable to reserve these resources for someone whose death was not so imminent? In any case, we replaced his aortic valve. The patient is now alive 6 years after the operation, and his death sentence has been commuted to life imprisonment. He is brought for regular fol-
low-up and has rehabilitated himself by performing social work within the prison walls. This case persuaded me to research the law and resulted in a publication in the Journal of Indian Law Institute. The subject was capital punishment and medical science.

In the case referred to in the editorial, it appears that medical professionals and legal professionals can come together and seek an alternative where valuable human resource is not wasted in the hope of retribution. I am referring to the large number of prisoners waiting a death sentence in US prisons. They could be potential organ donors for the community. With the assistance of the medical profession, each prisoner who is to be executed can provide organs for 8 to 10 patients.

This would certainly appeal to society at large. The article published in the Journal of Indian Law Institute has interested the law commission in India, which is considering this suggestion. However, capital punishment itself is rarely given out in Indian courts. Perhaps this thought may be worth a closer look in your community, where the number of convicts on death row is large.

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Reply to the Editor:

Readers will be grateful for the informative letter from Dr Sampath Kumar, who raises two interesting themes for ethical analysis. The case that he reports shows how changes in contextual details can clarify values and illuminate moral reasoning developed from analysis of an index case, like our heart transplant patient. This approach to ethics is referred to as casuistry. In his case, the patient was not just in prison but was on death row, intensifying the apparent strength of the argument from justice to withhold treatment because of the seriousness of the crime. The treatment was an expensive valve operation, although it did not consume as scarce and as valuable a resource as a donor heart. The principle that guided his decision was that prisoners are our fellow citizens and fellow human beings, to whom physicians have a fiduciary duty to provide care within the boundaries of resource availability. It is enriching that he can give us the outcome, underlining the appropriateness of his decision to apply this principle.

The second theme that he raises is the issue of allowing prisoners to be organ donors. The voluntary or involuntary removal of vital organs after execution in China is an efficient but potentially abusive solution to the donor shortage. Clifford Bartz, a federal inmate in Pennsylvania, described the Inmate Organ Donor Network in the March issue of the Kennedy Institute of Ethics Journal. Bartz and his colleagues propose that qualified inmates who pledge up to three organs on their death should be given 1 year of suspended prison time, and those who serve as living donors should receive 7 years of reduced time. He describes several voluntary donations of organs from prisoners to their needy relatives. These are examples of a form of trade, trading time for organs. In my Minnesota case of the prisoner who wanted to collect “rent” for his donated kidney, described in my reply to Dr Richenbacher’s letter, proved to be a Faustian bargain, but this single example should not lead to a categorical ban. I recommend a more empirical approach to test the optimistic hypothesis that under the best circumstances, prisoner organ donation can be an act of heroism leading to trust and rehabilitation of a fallen comrade on the road of life.

We need rewards for donation. As a blood donor, I favor some advantage within the health care system for those who enrich it by donation. This might parallel the airlines’ policy of rewarding frequent flyers for their loyalty with expedited boarding and free air travel on some under-filled flights. Blood donors, and particularly organ donors, deserve reasonable rewards within the health care system, as long as they do not unfairly disadvantage other patients. Such a reward system would strengthen the value assigned by society to the act or intention to donate. Finally, the use of financial rewards should be explored as even Veatch, a longtime opponent of this policy, has grudgingly come to accept. The Council on Ethical and Judicial Affairs of the American Medical Association, stimulated no doubt by Bob Sade’s presence on the council, has recommended that an empirical trial of financial rewards for organ donors should be conducted to determine whether it will favorably or unfavorably affect the overall rate of donation or reduce the donor pool.

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Bivalirudin as alternative to both danaparoid and heparin in off-pump coronary artery bypass grafting

To the Editor:

I enjoyed the recent article “Heparin Versus Danaparoid in Off-Pump Coronary Bypass Grafting: Results of a Prospective Randomized Clinical Trial” by Carrier and colleagues. I favor off-pump coronary artery bypass grafting in patients with heparin-induced thrombocytopenia (HIT). Did Carrier and colleagues consider using a short-acting thrombin inhibitor such as bivalirudin (Angiomax) rather than danaparoid as the heparin alternative?

I have used bivalirudin, a short-acting thrombin inhibitor, in several patients with

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