A shortage of organ donors is the major limitation for any type of “routine” transplantation. Although donation of organs by direct relatives in the case of liver and kidney transplants could almost double the number of such operations conducted in industrial nations, the waiting lists for transplants would still dramatically exceed the number of available organs in any region of the world. Unfortunately, this is the case for every organ that can be transplanted today. In the case of transplants of thoracic organs (heart and lungs), there is as yet no known way of using a living organ donor for heart transplantation. Different social, cultural and religious attitudes in certain regions of Asia restrict the growth of transplantation programs by dramatically reducing the pool of organ donors, even though economic problems may also be in large part responsible for limiting the number of transplants. In China, Confucianism and the dominant cultural ideal of returning to the ancestors with one’s own intact body have led to widespread refusal of the harvesting of organs from the cadavers of recently deceased relatives for transplants. Since the late 1990s, numerous reports in the international press (e.g., see Refs.3–5), as well in scientific journals,6,7 have exposed the practice of organ “donation” using organs taken from executed prisoners.

China has by far the most executions of any country in the world. Although the Chinese government does not provide official statistics concerning the number of executions, Amnesty International has estimated that 3,900 death sentences were imposed and at least 1,770 executions, Amnesty International has estimated that 3,900 death sentences were imposed and at least 1,770 executions, Amnesty International has estimated that 3,900 death sentences were imposed and at least 1,770 executions, Amnesty International has estimated that 3,900 death sentences were imposed and at least 1,770 executions, Amnesty International has estimated that 3,900 death sentences were imposed and at least 1,770 executions, Amnesty International has estimated that 3,900 death sentences were imposed and at least 1,770 persons executed in 2005.27 Nevertheless, the true number of executions is probably much higher, with experts estimating up to 10,000 executions every year.28 Very often, the courts cases leading to the execution cannot be considered “fair trials” by European standards, with the accused not having access to lawyers, and with confessions obtained by torture being accepted as proof. In China, the death penalty may be given for 68 different crimes, including robbery or smuggling, although these more minor crimes have to be accompanied by aggravating circumstances. By contrast, the death penalty has been banned in all 27 countries of the European Community since 1984. Furthermore, the death penalty has been abolished in all 46 member states (800 million people) of the Council of Europe since 1997. Outside of Europe, with the notable exceptions of the USA and China, the death penalty is no longer used by most countries that are not at war.

In 1994, a non-governmental organization, Human Rights Watch, reported that somewhere between 2,000 and 3,000 organs, mainly kidneys and corneas, had been transplanted from executed prisoners in China.14 In 2004, Diflo used personal communication with Chinese-Americans returning from China after successful transplants came from executed prisoners.29

Compared with operations for other organs, heart transplants are still rare in China. Overall, in Asia, heart transplantation was not widely practiced following the first transplantation performed by Wada in Japan in 1968,15 due to poor results. After substantial improvement in organ preservation, the handling of organ rejection, and other prophylactic measures, heart transplant programs were restarted in China and Taiwan in the 1980s. Different teams have since reported excellent results in both Chinese and international scientific journals with between 50 and 500 cases per center.16–18 In these reports, it is rare to find any precision concerning the circumstances of the donor’s death, with the most common causes of death being given as major head injury16 or gun-shot wound to the head.14 Nevertheless, in personal and confidential communications with cardiac surgeons from transplantation sites in China it seems that donor hearts are often procured from executed prisoners immediately after the prisoner has been shot in the head. This practice was confirmed by Human Rights Watch as early as 1994, with the organization claiming that the prisoner would be shot...
in the head or in the chest depending on which organ (or organs) was needed for transplantation. In 1999, Amnesty International reported on the use of so-called “death vans” in which executioners delivered lethal injections that avoided the organ damage associated with shooting. Although no detailed figures are available, it seems reasonable to suppose that the majority of heart donors for transplant operations are executed prisoners.

What are the moral problems associated with the procurement of organs for transplants from executed prisoners? The Chinese justice system and its use of the death penalty, as well as the association of transplantation with executions, all violate fundamental human rights in multiple respects. First, the use of the death penalty in general might be considered as a violation of human rights and, second, and more particularly, the way condemned prisoners are executed in China should be considered as a violation of human rights. Third, there is the presumed absence of any informed consent given by the donors or their families for the transplant following the execution. However, any informed consent would be meaningless because it would have been made under duress. Thus, the principles of the right to life, the right to a fair trial, and the right to autonomy are all seriously violated in such cases.

The procurement of organs from victims of executions presents several moral problems: First, under these conditions, transplantation medicine benefits from these severe violations of human rights, which are evidently not satisfactory as respect for fundamental human rights, surely extend to the requirement that we should not knowingly profit from their violation. Second, we have to fear that, in light of the insufficient number of voluntary organ donations worldwide, this practice of using executions to procure organs for transplants puts pressure on the Chinese authorities to keep the number of executions at present-day levels or even to increase the number. Finally, there is the specter of “executions on demand,” where prisoners will be executed because they offer a desirable tissue or organ match rather than because of the nature of their crime. Thus, as long as Western transplantation medicine continues to accept organs from China without proof of their origin and appropriate consent, we may not only be profiting from Chinese injustice, we may also be promoting it.

What are the consequences of these considerations for cardiac surgeons and, with respect to their training appointments in foreign countries, in particular for academic heart surgeons?

1. Although politics should not play a major role in international scientific and clinical cooperation, this does not mean that we can ignore violations of human rights. Procurement of donor organs from executed prisoners violates human rights as does the death penalty itself.

2. One must keep in mind that the process of procurement of donor organs from executed prisoners in China is legal although repeatedly denied by the government. Therefore, as already argued by Diflo with respect to renal transplantation programs, individual Chinese transplantation professionals should not be personally boycotted. Instead, the cardiac surgery community, especially in the form of its national and international organizations, should speak out collectively against this violation of human rights. Such statements should be addressed to the Chinese government, the army (which in most of the cases is responsible for carrying out the death penalty) and Chinese cardiac surgery societies.

3. Cardiac surgeons should always refuse to perform or cooperate in any organ transplantation procedures in China unless they know the precise origin of the donor organ and can be sure that there are no violations of human rights. Any observed or suspected violation of fundamental human rights should be documented during the stay in China and published in the appropriate fashion abroad.

4. Scientific and clinical cooperative programs have been established between several Chinese and Western cardiac surgery units. They are extremely helpful for both sides and especially enable Chinese cardiac surgeons to train in techniques for adult and congenital cardiac surgery. This training is important for building up a suitable capacity in cardiac surgery in China. When such cooperation includes transplantation, however, ethical issues must be a fundamental consideration in the nature and extent of this cooperation. In addition, any such joint scientific venture in transplantation surgery should address the question of the source of donor organs when submitting a communication for publication in a scientific journal or for presentation at a scientific meeting.

5. Guidelines for non-directed live organ donation should insist on the voluntary nature of the donation and recommend the exclusion of prisoners from donation, as their decision to become living donors might be affected by their personal situation. Although live donation is impossible in heart transplantation and as yet non-existent in lung transplantation, it would still be useful for guidelines in these fields to carry a clear condemnation of unethical donation processes. Most current guidelines for heart transplantation have nothing to say on the issue of “forced” donation.
In addition, we need a consensus statement expressing the opinion of all medical societies that deal with any kind of transplantation programs so that the community can speak with one voice on the issue. All forms of transplantation tourism, such as those that already exist for procuring kidney or cornea transplants abroad, should be severely and unanimously condemned. Finally, it needs to be made clear that paid organ donation using organs from third world countries is nothing other than a modern form of slavery.

REFERENCES