Viewpoint

The right to sell or buy a kidney: are we failing our patients?

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Recently I was told that I am a utilitarian. I had always considered myself a humanitarian, but recently have developed some doubts about my beliefs. Let me explain. Yesterday I saw Sami, a 23-year-old Israeli Arab who studies computer science in California, USA. He had waited for more than 18 months for a cadaver kidney in the USA before giving up and travelling to Iraq to receive a kidney transplant from a paid unrelated living donor. Also in my clinic were four local Jewish patients who had recently paid more than US\$200 000 to receive kidney transplants from paid non-related living donors in the USA. Even humanitarians might perceive a certain absurdity here.

A few years ago, I was adamant that organ trading was wrong and would lead to terrible crimes. Certainly I viewed the exploitation of poor people with great misgiving and would quote Shakespeare: "the pound of flesh . . . is dearly bought, is mine, and I will have it". However, I have become less emotional since I analysed the situation at the renal transplant clinic of Hadassah University Hospital, Israel.

The United States Renal Data System (USRDS), freely accessible on the internet (www.usrds.org), shows that the USA has one of the highest rates of kidney transplantation in the world, with 45–50 transplants/million people per year. In the USA, 10–15% of kidney transplants are from altruistic living donors, whereas in Israel, with fewer transplants (35/million people per year in 1998), such donors now supply almost 50% of all transplant kidneys.

Israel has a population of 6 million, and until recently was also responsible for the medical care of 1·3 million citizens of the West Bank. Laws governing kidney transplants, stipulated by the Israeli Ministry of Health, allow removal of cadaver organs only with specific permission of the family, and require all living donors to receive written permission from the ministry after assessment by a hospital committee that includes a psychologist and a social worker. Living donors and recipients who are not first degree relatives must also be interviewed by a national committee. Unrelated living donors are rarely approved and paid organ donation is illegal.

The Hadassah University Hospital in Jerusalem, which also does liver, heart, lung, pancreas, and bone-marrow transplantation, has operated a small renal transplant programme since 1972 that has done more than 420 kidney transplantations. In recent years, living donors have provided 45% of such transplants. The number of patients attending the post-kidney-transplant clinic increased in the

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1990s to more than 500 by 1996. Because Jerusalem is in the centre of the West Bank, the explanation for this influx of new patients is related to local geopolitics. Before the onset of the Intifada (Palestinian uprising) in 1987, 92 kidneys (59 cadaver, 33 related living donors) were transplanted to Arab patients in Jerusalem. Since 1988, we have received almost no referrals of patients from West Bank dialysis centres, and monthly serum samples needed to crossmatch patients for cadaver kidneys have not been sent to our centre. Because these patients were fully covered by the Israeli military authorities for hospital admissions and for outpatient follow-up, patients who had already received transplants continued their care in our clinic. Some Arab patients trapped in chronic dialysis treatment without the option of a transplant in Jerusalem underwent kidney transplantation from unrelated paid living donors in India and, more recently, Iraq.

In a brief report,² we noted the success of the transplants done in India, but also that patients were not selected and prepared for the transplant procedure, which cost about \$15 000 including travel. Baghdad became a closer and cheaper (\$7000) option after the Gulf War, and we have reported³ on the first 80 recipients of Iraqi kidney transplants who arrived at our centre. Again, patients were not selected, and our colleagues in the West Bank have told us of many patients who travelled to Iraq against their advice within 1 or 2 weeks of starting chronic dialysis treatment. 85% of these unprepared patients' transplants had survived at 1 year follow-up, which actually exceeded the rate achieved by our local cadaver kidney programme. However, first-year mortality was 10%, higher than would be acceptable in most modern transplant programmes, and reflected poor selection of patients rather than inadequate treatment. Furthermore, since we have no information on the number of patients who went to Iraq, the mortality rate could have been higher. Frishberg and colleagues,4 from a paediatric unit in Jerusalem, reported the death of one of their patients in Iraq.4 However, none of their patients acquired hepatitis or HÎV infections after operations in Iraq, which contrasts with some data on transplant patients returning from India.5,6 Most patients who went to Iraq had met their kidney donors, often in the street outside the hospital in a group of competing donors. All donors were young, able-bodied men aged 25–35 years who received about \$500 for their kidney.

Our local Israeli Arab patients, who comprise about 30% of our dialysis population in Jerusalem, soon began to ask how and why their unprepared West Bank cousins and friends were receiving kidney transplants, whereas they, after undergoing rigorous pretransplant screening tests, were still waiting for a transplant from a cadaver; and in many cases had been waiting for years. Here began my conversion from fierce objection to kidney marketing to passive acquiescence in this trade. We could not prevent our patients travelling to Iraq. We gave patients who asked our advice all the information I have presented here, and warned them that we could not help them outside our national boundaries, but assured them that we would

immediately assist them on their return. Around 30 of our Arab patients have taken this option and all except two have had excellent results, which emphasises the importance of adequate selection of patients and pretransplant work-up.

Jewish patients realised that Arab patients were disappearing from their dialysis sessions. However, visiting Iraq is inadvisable for Jews. Therefore, the surgical group of the Rabin Medical Center in Tel Aviv circumvented Israeli law by doing kidney transplants from unrelated living donors in several accessible countries including Estonia, Bulgaria, Turkey, Georgia, Russia, and Romania. This group was stopped from working in several of these countries after local and international protests,7 but nevertheless have continued to flourish. Paid donors are recruited locally or in some cases are brought, with groups of patients, by private aeroplane from Israel. Transplant patients pay around \$200 000 for such services. About 26 of our Jewish patients have taken this route, often incurring huge debts, but in some cases, patients have raised costs by setting up private charities. These transactions now receive semiofficial recognition from the Israeli Ministry of Defence which is responsible for veterans' health costs, and from health insurance companies which refund \$40 000 (the cost of kidney transplantation in Israel) to patients who undergo transplantation abroad. These agencies are no doubt aware that renal transplantation is cheaper than chronic dialysis treatment. These transplants are generally successful and the medical care seems to meet international standards. However, patients must sign agreements of secrecy and we receive little documentation about the transplants since the Israeli doctors deny that they do more than accompany patients. Patients usually do not know the identity of the local donors.

We have had fewer patients in our renal transplant clinic since the Palestinian authority took over the medical administration of the West Bank 3 years ago. Cessation of funding for follow-up and admission of kidney transplant patients at our centre has had unfortunate results for many transplant patients. 25% of our current kidney transplant outpatients have bought kidneys abroad from unrelated living donors (table).

	Source of kidneys (n=96)*
Unrelated living donors	61
Arabs	
Iraq	29
India	2
Egypt	4
Jews	
Turkey	10
Estonia	2
Yugoslavia	1
Romania	1
Georgia	1
Europe	2
Not known	3
USA	6
Related living donors	11
Cadaver donors	24
USA	11
South Africa	4
France	2
Belgium	2
Russia	2
Venezuela	1
Germany	1
Sweden	1

^{*}Total number of patients in the clinic=244: 121 cadaver donors, 123 living

Kidneys imported from abroad, Hadassah University Hospital, Jerusalem, Israel, November, 2000

Some of our patients have obtained cadaver donor kidneys abroad (table). Dual nationality patients were able to register on foreign cadaver kidney programmes. Many states in the USA, unlike most western countries (including Israel), allow cadaver kidneys to be transplanted to foreign nationals. Whether payment for services may be construed as selling kidneys is a moot point. Altogether, about 40% of our clinic patients have had transplants abroad and the number is growing.

If my kidneys failed I would opt for a transplant from a living donor. Wolfe and colleagues8 have shown that renal transplantation increases the survival rate of patients. Compared with dialysis patients who could have a transplant but have not yet been found a kidney, the relative risk of death after transplant is increased for the first 3 months after surgery, but after 1 year this risk has fallen to a third. Furthermore, the 1-year survival rate is higher in transplants from living donors than cadaver donors, and the median (50%) graft survival is 21.6 years compared with 13.8 years, respectively.9 Despite a huge increase in the number of patients awaiting kidney transplant, the number of cadaver donors and related living donors have remained almost static in the USA during the past few years. The waiting time for transplantation, currently about 3 years, will reach almost 10 years by the year 2010.10 Thus, it is not entirely surprising to find that transplants from unrelated donors are rapidly increasing in the USA (USRDS). Some of these donors are highly paid and imported from abroad.

Many declarations of opposition to commerce in organ transplantation have been made by various international organisations, and castigating articles have been written in the medical and popular press. An article by Frishberg and colleagues⁴ was refused by an international journal on the grounds that publication would imply approval of commercial unrelated kidney transplants from living donors.

My attitude to the organ trade has slowly mellowed and changed. Does an alternative description of the trade: "paying for an organ transplant and donating a body part for money" make it seem more acceptable? Neither transactions are forbidden by Jewish religious authorities.11 Furthermore, a subtle change in international attitudes has led to open discussion of the trade, 12,13 of the medical profession's well meaning paternalism, and of the autonomy of donors and patients. I think that we are paternalistic when we judge the motivation and values of other peoples and cultures. A paternalistic attitude to donors implies that they are poor, ignorant, and endangering their health. However, a 20year follow-up study14 showed no increase in mortality after kidney donation, and many patients undergo routine unilateral nephrectomy for kidney disease. These data are largely from more-developed countries, but no evidence suggests that the situation is different in less-developed

J Kassirer, former editor of the *New England Journal of Medicine*, wrote in 1983,¹⁵ that "the patient experiences the outcome and it is his values, not the physicians, that should be incorporated". A dialysis patient and member of the UK parliament has argued against legislation banning commerce in human organs proposed after a kidney transplant scandal in the UK. His words are powerful: "Those who want organs want them now because life is finite". The paternalistic role of doctors in which they make all the decisions for patients is long outdated. With improved communication and access to information, patients now often have more information than their physicians and ask for advice, not decisions.

To argue for autonomy of donors and patients does not mean that they should not act within the laws of their country of residence. John Dossetor¹⁷ has recently discussed whether kidneys should be bought and sold. His ideas for regulated altruistic kidney donation might be contentious, but his discussion of the dimensions of individual autonomy (mainly in the western world) is stimulating. These autonomies relate mainly to the western world. Although we have full autonomy for some dangerous activities and habits (eg, hang gliding, smoking, and eating and drinking to excess), autonomy is restricted if it harms others (eg, automobile, property, and firearm laws), involves third parties (eg, euthanasia, selling drugs, and living off prostitution), is antisocietal (eg, incest and cannibalism), or if restriction is deemed to be for the common good (eg, taxation, military service, and human rights legislation). However, societal norms can change rapidly, and issues that used to be shocking, such as women's equality, interracial marriage, children born out of wedlock, necropsies, and cadaver organ transplants are now accepted aspects of western society. Thus, a future in which people have autonomy in selling their own body parts is not unimaginable.

Should we let the market in human organs flourish in the best traditions of free enterprise? The potential for criminal abuse of such a market is worrying. At a symposium at Berkeley University, USA on "commodification of the body", witnesses attested to gross breaches of local and international laws. Authorities can punish such offenders. Unfortunately, in many parts of the world criminals can easily escape detection and punishment. The laws governing organ trade vary greatly between countries, as do those that address the equitable distribution of national assets; and certainly cadaver organs could be regarded as assets.

I would support legislation governing regulated kidney sales. "A legal trade can be regulated", "3 whereas present practices cannot. By failing to even consider legal alternatives we are neglecting the welfare of our patients and abandoning them to unregulated free enterprise. The form of such legislation, and which legislative body should decide on the details, even for an experimental programme, has been discussed, "7,18" but there is an urgent need for recognition that this trade already exists. For those who would strengthen existing laws and directives

banning organ trade I would caution that bad legislation can kill patients. In this respect I suppose that I am still a humanitarian. However, I now understand that a utilitarian accepts that ethical norms can be affected by prevailing practice. Thus, in realising that patients, donors, and commercial gobetweens are already trading organs, I suppose that I am a utilitarian.

References

- 1 Shakespeare W. The merchant of Venice, Act 4, Scene 1.
- Priedlaender MM, Gofrit O, Eid A. Unrelated living donor kidney transplantation. *Lancet* 1993; 342: 1061–62.
- 3 Friedlaender MM. Living unrelated renal transplantation: principle and practice. In: Andreucci VE, Fine LG, eds. International yearbook of nephrology. Oxford: Oxford University Press, 1996: 153–59.
- 4 Frishberg Y, Feinstein S, Drukker A. Living unrelated (commercial) renal transplantation in children. J Am Soc Nephrol 1998; 9: 1100–03.
- 5 Salahudeen AK, Woods HF, Pingle A, et al. High mortality among recipients of bought living-unrelated donor kidneys. *Lancet* 1990; 336: 725–28.
- 6 Ounibi W. High HIV and HbsAg infection rate in recipients of commercial transplants. J Am Soc Nephrol 1993; 4: 957.
- 7 Editorial. Unrelated living donor transplants in Estonia. Nephrol Dial Transplant 1998; 13: 1636.
- 8 Wolfe RA, Ashby VB, Milford EL, et al. Comparison of mortality in all patients on dialysis, patients on dialysis awaiting transplantation, and recipients of a first cadaver transplant. N Engl J Med 1999; 341: 1725–30.
- 9 Hariharan S, Johnson CP, Bresnahan BA, Taranto SE, McIntosh MJ, Stablein D. Improved graft survival after renal transplantation in the United States, 1988-1996. N Engl J Med 2000; 342: 605–12.
- 10 Neylan JF, Sayegh MH, Coffman TM. The allocation of cadaver kidneys for transplantation in the United States: consensus and controversy. J Am Soc Nephrol 1999; 10: 2237–43.
- 11 Steinberg A. Ethical issues in nephrology–Jewish perspectives. Nephrol Dial Transplant 1996; 11: 961–63.
- 12 Radcliffe-Richards J, Daar AS, Guttmann RD, et al. The case for allowing kidney sales. *Lancet* 1998; **351:** 1950–52.
- 13 Cameron JS, Hoffenberg R. The ethics of organ transplantation reconsidered: paid organ donation and the use of executed prisoners as donors. *Kidney Int* 1999; **55:** 724–32.
- 14 Najarian JS, Chavers BM, McHugh LE, Matas AJ. 20 years or more of follow-up of living kidney donors. *Lancet* 1992; 340: 807–10.
- 15 Kassirer JP. Adding insult to injury: usurping patients' prerogatives. N Engl J Med 1983; 308: 898–901.
- 16 Warden J. Letter from Westminster: kidneys not for sale. *BMJ* 1989; 298: 1670
- 17 Dossetor JB. Kidney vending: "yes" or "no". In: Levine DZ, ed. Nephrology ethics forum. Am J Kidney Dis 2000; 35: 1002–18.
- 18 Hou S. Expanding the kidney donor pool: ethical and medical considerations. *Kidney Intl* 2000; 58: 1820–36.