

Organ transplantation is getting back its “true” luster in China

Zhiyong Guo, Yao Lu

Organ Transplant Center, the First Affiliated Hospital, Sun Yat-sen University, Guangzhou 510080, China

Corresponding to: Zhiyong Guo. Organ Transplant Center, the First Affiliated Hospital, Sun Yat-sen University, NO.58 Zhongshan Er Road, Guangzhou 510080, China. Email: rockyucs1981@126.com.

Abstract: Although a great success has been made in the field of organ transplantation in China, the practice of organ donation from executed prisoners has long been rebuked by the international transplant community. The “boycott” attitude of western countries has stifled the development of transplant science and medicine in China. With the efforts of the Chinese government and transplant community, a voluntary organ donation system has been successfully established. The medical authorities have committed that the practice of using organs from executed prisoners will be abandoned in the near future. It is time for a big hug from the international transplant community to its Chinese partner. And it is time for a rapid development of organ transplantation in China.

Keywords: Organ donation; transplantation; ethics



Submitted Oct 26, 2013. Accepted for publication Oct 31, 2013.

doi: 10.3978/j.issn.2304-3881.2013.11.05

Scan to your mobile device or view this article at: <http://www.thehbsn.org/article/view/2948/4056>

When I was applying for post-graduate training in the early 2000s, organ transplantation was an innovative and growing niche in the field of medicine, particularly in China. The transplant volume in China ranked second in the world, and a number of attractive techniques were introduced and modified at that time. However, the Chinese transplant system has long been rebuked by the international transplant community because of the use of donor organs from executed prisoners. The organ transplant practices in China have been tightly governed since 2007, and the number of transplants performed has declined dramatically. In a sense, transplantation in China had lost its luster soon after it was gained. In October 2011, a paper entitled “*Time for a boycott of Chinese science and medicine pertaining to organ transplantation*” was published in *The Lancet* (1). The authors called for “*a boycott on accepting papers at meetings, publishing papers in journals, and cooperating on research related to transplantation unless it can be verified that the organ source is not an executed prisoner.*”

This “boycott” attitude of western countries has stifled the development of transplant science and medicine in China. Take scientific publications for instance (*Figure 1*): in 2012, there were 86.96 publications from American

institutions per 1,000 cases of liver transplants in the United States, whereas there were 429.76 publications from Chinese institutions per 1,000 cases of liver transplants in China. However, only 8.69% of the Chinese publications were published in English language journals. In addition, 23.4% of the studies were basic science research (4.8% in the United States). Importantly, only a few papers (10.2% in China versus 24.4% in the United States in 2012) were published in major transplantation journals like *American Journal of Transplantation*, *Transplantation*, *Liver Transplantation*, and *Transplantation Proceedings*. There was no multicenter, randomized, controlled trials (RCTs) from China published in these journals during the period of 2000-2012 and only one single RCT was published in *Transplantation Proceedings* (2). More notably, there are no Chinese transplant centers involved in any global RCT study. Many researchers in China hesitate to conduct a clinical trial concerning deceased donors because the editorial decision of rejection based on ethical issues is anticipated. In addition, only a small number (usually one or two) of Chinese scholars are actively participating in scientific discussions at international conferences like the American Transplant Congress (ATC) or International Liver

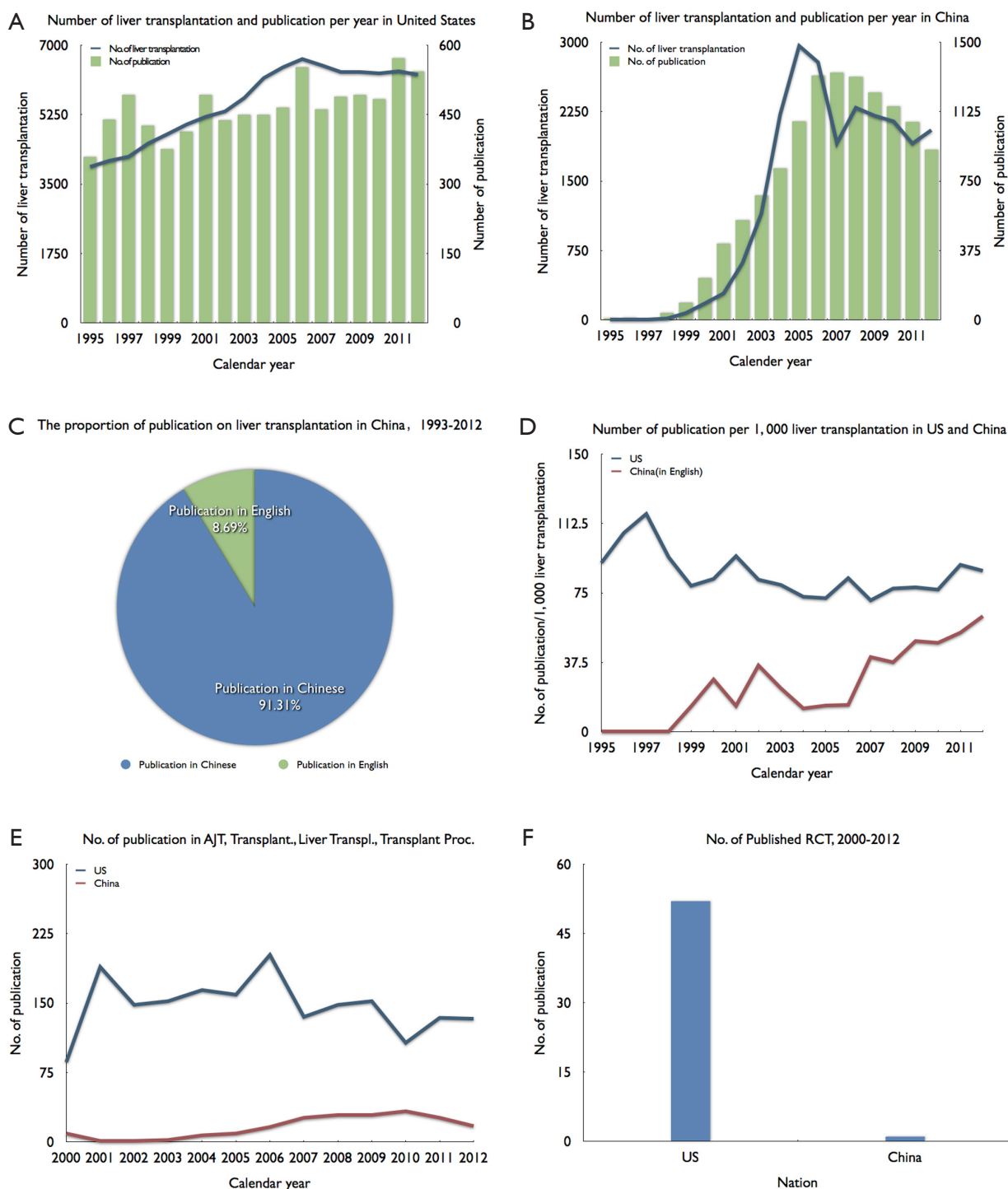


Figure 1 Summary of publications concerning liver transplantation in China versus United States. (A) and (B) the number of liver transplants and corresponding publications; (C) the proportion of publications in English language in China; (D) the number of publications per 1000 cases of liver transplants; (E) and (F) publications or RCTs published in *American Journal of Transplantation*, *Transplantation*, *Liver Transplantation*, and *Transplantation Proceedings*. The calculations were based on data from Pubmed Database, Wanfang Databases, CLTR Database, and SRTR Database. Abbreviations: RCT, randomized, controlled trials; CLTR, China Liver Transplant Register; SRTR, Scientific Registry of Transplant Recipients.

Transplantation Society (ILTS) annual meeting. Therefore, compared to the rapid development of other medical fields in China, the scientific advancement in the transplantation field has been very slow. The policy uncertainty and slow development in organ transplantation has resulted in a persistent reduction in the numbers of young medical students aspiring toward a career as a transplant physician or surgeon. All of these factors have partially contributed to poorer prognosis in our transplant patients as shown in the 5-year patient survival rate of 57.3% in China compared to 75.9% in the United States in 2010 (3,4).

In March 2011, the Chinese Ministry of Health and the Red Cross Society of China jointly initiated a pilot program for deceased organ donation from general citizens. Data from China Liver Transplant Register (CLTR) showed a rapid increase of deceased organ donation from non-prisoners in China after initiation of this program. More importantly, the Ministry of Health declared that the practice of organ donation from prisoners would be abandoned in the near future. This shift in policy will certainly affect many aspects of organ transplantation in China. For instance, the organ procurement organization (OPO) will play a key role in the new framework by coordinating organ donation and recovery from consenting donors. The China Organ Transplantation Response System (CORTS) will take the responsibility to allocate organs fairly and transparently. These new policies will ensure that the international standards for organ donation and transplantation will be followed in all transplant centers throughout the country.

In light of these new policy changes demonstrating a commitment to a more ethical organ donation and allocation system in China, the international transplant society should open its arms and welcome the Chinese transplant community back to its fraternity of innovative science and medical advancement. We need the professional advice and recommendations from Western countries, particularly in how to build a well-organized OPO, and how to define the characteristics and improve the quality of China Category III (donation after brain death followed by cardiac death) donor organs. It is time for the international

society to open all the scientific and medical exchange channels. This will facilitate a larger number of young transplant specialists being sent to world-class transplant centers for training in the latest transplant techniques. This, in turn, will foster more cooperation between China and other countries, both in clinical and basic science research to advance the field of transplantation worldwide. More well-designed multicenter RCT studies concerning the special issues in China will be conducted, thus facilitating an increase in the number and quality of publications from Chinese transplant centers. Talented medical students will once again be attracted back to the transplantation field. All of these factors combined will help to advance the field of transplantation and ultimately improve the outcomes of transplant recipients worldwide. We believe that China will become one of the most important contributors to the future progress of transplantation science. Now is the time for organ transplantation in China to brush off its tainted past and regain its former luster!

Acknowledgements

We have to express our thanks to Dr. Paul M. Schroder from University of Toledo College of Medicine, for his helpful English editing.

Disclosure: The authors declare no conflict of interest.

References

1. Caplan AL, Danovitch G, Shapiro M, et al. Time for a boycott of Chinese science and medicine pertaining to organ transplantation. *Lancet* 2011;378:1218.
2. Qiu Y, Zhu X, Wang W, et al. Nutrition support with glutamine dipeptide in patients undergoing liver transplantation. *Transplant Proc* 2009;41:4232-7.
3. CLTR 2010 Annual Scientific Report. Available online: http://www.cltr.org/pages/statistics/statistics_report.jsp (accessed on Oct 23, 2013).
4. 2010 OPTN/SRTR Annual Report. Available online: <http://optn.transplant.hrsa.gov/data/annualReport.asp> (accessed on Oct 23, 2013).

Cite this article as: Guo Z, Lu Y. Organ transplantation is getting back its "true" luster in China. *Hepatobiliary Surg Nutr* 2013;2(6):304-306. doi: 10.3978/j.issn.2304-3881.2013.11.05