

Perspectives on liver transplantation in the People's Republic of China

Sumihito Tamura, Yasuhiko Sugawara*

Artificial Organ and Transplantation Division, Department of Surgery, Graduate School of Medicine, and Organ Transplantation Service, The University of Tokyo, Tokyo, Japan.

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The People's Republic of China (PRC), a country with rising geopolitical power, is also increasing its global presence in the field of liver transplantation.

The 2008 Beijing Olympics is just a little over a year away, and excitement and expectations are rising. Although in the 1932 Olympic Games there was a single entrant from mainland China under the rule of Chiang Kai-shek's Kuomintang nationalist party, the first official appearance of the PRC was at the Summer Games in 1984, officially known as the Games of the XXIII Olympiad, held in Los Angeles. The PRC had boycotted earlier games due to the Republic of China's presence as the Republic of China rather than as the PRC. In 1984, the Republic of China competed as Chinese Taipei and the PRC competed as China. Now, only a quarter of a century later, the country is hosting the international athletic celebration. The Olympics has fueled frenzies in many of the host cities in the past, and with less than 18 months to go before the games open in 2008, Beijing is no exception. China's economy is bright. As a whole, its growth is nearly as rapid as that of the capital: 11% last year compared with Beijing's 12% (its eighth consecutive year in double digits). The growth is clearly visible, as those who have recently paid a visit have observed the rapid changes and booming economic energy surge underlying this period of transformation. While there is some skepticism on the overall economic benefits the games will bring to the nation over the long-term, some calling it a mere temporary inflation caused by the Olympic spirit, there is little doubt that this is a time of increasing international exposure and an opportunity for positive cultural recognition.

The field of liver transplantation in China is not unaffected by this environment.

A group of pioneer surgeons, including Professors Qiu Fa-zu, Xia Shui-sheng, and others, led by Professor Lin Yan-zhen from Ruijin Hospital in Shanghai, made a heroic attempt in 1978, marking the initiation of liver transplant history in the PRC (1). Since then, although the field suffered a 10-year moratorium between 1983 and 1993 due to poor outcomes and relatively high

costs, the introduction of better immunosuppression and refined surgical techniques has led to a current level of success in liver transplantation in the PRC comparable to that in Europe and North America. At present, liver transplantation is an accepted treatment for liver failure. There are approximately 10 transplant centers located in Tianjin, Guangzhou, Beijing, Hangzhou, Shanghai, Chengdu, and Wuhan. In each of these centers, more than 100 liver transplantations are performed annually. Apart from these major centers, more than 200 hospitals perform between 10 and 50 cases each year (1). On the whole, the total number of liver transplants reached 2,300 cases in 2004 and 3,500 in 2005, making the PRC the country with the second highest (next to the United States) rate of liver transplantations globally. The PRC is undoubtedly becoming a giant in this field.

Historically, this remarkable progress and achievement has, however, been tainted by two questionable practices: The use of executed prisoners as a source of deceased donor organs and the existence of so-called "transplant tourism".

Indeed, there is substantial published evidence that, sadly, the allegations of these practices, which have been condemned by human rights advocates, are not without grounds. In 1998, the Lancet reported the arrest of an "organ salesman" in New York (2). The article reported that two Chinese citizens offering to sell human organs from prisoners executed in China were prosecuted, and further described that the event might be the tip of the iceberg, suggesting the practice of organ retrieval performed in the PRC against the Nuremberg Code and against the policy statement adopted by the Ethics Committee of The Transplantation Society in 1994. The event highlighted the serious need for the international community to confirm and to enter into discussions with the PRC regarding the internationally acceptable medical ethics standards of organ donation. Unfortunately, despite the recognized need, the matter was ignored until recently (3). As has been frequently reported, there is a tragic reality of an unbalanced supply and demand throughout the world. Transplant tourism involving paid living

donors has been reported in countries such as India, Philippines, Pakistan, and elsewhere. The effect of international condemnation and subsequent outlawing of such practices in these regions has only driven these activities underground, where governmental agencies have little influence.

In the PRC, however, things seem to have changed for the better. Whether or not this is due to the exposure created by the Olympic Games, Chinese authorities and transplant centers are reacting positively. A recent statement by Dr. Jiefu Huang, Vice Minister of Health of PRC and Professor of Surgery of Peking Union Medical College in Beijing, that appeared in *Liver Transplantation*, an internationally acknowledged journal in the field, should be recognized as truly epoch-making in this sense. In the article, Huang reviews the historical background and ethical and legislative perspectives on liver transplantation in China. He describes that China is in the process of transition, and some socio-cultural beliefs and customs must be modernized to keep pace with social developments. With regard to the field of liver transplantation, he bravely admits that, "There is no doubt that Chinese medical ethics have not kept pace with rapidly changing technologies". He then introduces a major effort to push ahead with the revision of the current medical ethics instigated by the Ministry of Health. A draft for legislation involving the medical standards of brain death has been completed based on intensive consultation with national and international medical and ethics experts. Thereafter, the legislation was approved and came into effect May 1, 2007. It is true that in the midst of rapid technical developments in the PRC, medical ethics concerning organ donation and transplantation might continue to struggle. As Huang admits, "Even with anticipated national adoption of these guidelines, challenges will remain". Here, we must not be discouraged by the daunting burden the large country faces, but rather accept the positive message that has been expressed. The message is that the PRC has realized the problem, and that it is willing

to cooperate with the rest of the world and honor the ethical commitment of the international society.

The problem of organ trafficking and solicitation, however, is far from being solved. The presence of the Olympic Games in the PRC, however, gains us a powerful ally. The exposure has resulted in the public admission of internal problems that liver transplant centers face in the PRC.

Laws have been enacted, which will give further opportunity to the international community to actively participate in helping the potentially largest transplant arena on the globe. We agree with the editors of the *Liver Transplantation* journal that we should remain optimistic that liver transplantation in the PRC will continue to progress and will soon adopt some, if not all, of the ethical principles that are recognized by the international community (4). With its emerging global presence and strong influence among the third world, we should anticipate its positive role in the future in all fields, including liver transplantation.

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(*e-mail: yasusuga-ky@umin.ac.jp)

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