

INVITED COMMENTARY

First registry report on kidney transplantation in China

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Kidney transplantation represents historically oldest but also largest transplant program worldwide with estimated 90 300 kidney transplantations according to Global Observatory on Donation and Transplantation which collects information from 82 member states. Data on kidney transplantation from far largest populated country, Mainland China, are missing while the only recent available information describes 5146 deceased donors in 2017 according to current International Registry in Organ Donation and Transplantation (<http://www.irodat.org>). The reason why there is in fact no international registry data available from China is well known, China was boycotted from publications of any clinical data which originated from organs procured from executed prisoners, the former common praxis in that country [1,2]. Moreover, several papers which were published were even retracted because authors or institutions were not able to prove that their donor source is not executed people [3]. Therefore, there has been lack of scientific information about Chinese transplant programs until 2015 with few exceptions which openly and fairly described studied population and mentioned that none organ from executed prisoners was used [4,5]. Chinese government had helped transplant community

to create national program for deceased organ donation [6] and finally banned organ procurement from executed people since January 1, 2015.

The Chinese Scientific Registry of Kidney Transplantation (CSRKT) supervised by Chinese state authorities has collected data from 135 kidney transplant centers since 2010. In this issue of *Transplant International*, Chen *et al.* [7] report for the first time CSRKT analyses on the outcome of renal transplantation in 6719 patients who had undergone kidney transplantation in 41 centers with >100 kidney transplants annually since January 1, 2015. They limited the registry analyses on primary ABO compatible kidney transplantation in adult recipients. Authors explicitly noted that they adhere to Istanbul declaration and no data originated from executed people.

This is indeed a very important report on Chinese kidney transplantation outcomes. 64% of patients received their grafts from living donors while 17% from donors with cardiac death and 19% from donors after brain and cardiac death. The later donor category consists of donors who meet brain death criteria and cardiac arrest is scheduled [8]. Typical brain death donor category does not exist in China as it opposes local

religious beliefs. All patients received MMF along with steroids and majority of them tacrolimus over cyclosporine as maintenance immunosuppression. Depletive ATG induction was used in 50% and in 25% of deceased donor and living donor kidney transplantation, respectively.

Interestingly, cold ischemia time was 6 h in deceased donors and it exceeded 12 h only in 5% of cases which is rather short in comparison with most advanced UK praxis where cold ischemia time in DCD transplantation is described to be about 14 h [9]. This fact should reflect kidney allocation policy in China; vast majority of transplantations were probably performed locally or at near donor hospitals, and donor HLA typing was available ahead of kidney procurement. As a consequence, one-year graft survival was 93.8% in deceased donor (in fact DCD) kidney transplantation while 91.3% at 3 years. Similarly, delayed graft function was just 17.7% in deceased donor cohorts. Clearly, this happened in low immunological risk recipients (PRA 0% in 92.3% cases) who received grafts from young deceased donors (37 years, just 5% of donors were older than 60 years). Living donor kidney transplantation outcomes were similar to other international cohorts with one- and three-year graft survival 97.7% and 96.5%, respectively. Acute rejection defined as an anti-rejection therapy occurred at one-year in 4.7% which is extremely low and more data and analyses are warranted to better understand this phenomenon albeit majority of recipients were in the low risk.

Of note, CSRKT report described also primary renal diseases. Renal biopsies were performed in 37.7% patients and in 28.8% who had undergone deceased donor and living donor kidney transplantation respectively, with IgA nephropathy being the most prevalent glomerular disease (23.7%). Contrary to European and US reports, only minority of patients suffered from diabetic or hypertensive nephropathy which fact well corresponds to younger age of described cohort.

Finally, presented data from Chinese Scientific Registry of Kidney Transplantation describe at least partially the current management of kidney transplantation in largest transplant centers in the Mainland of China. Selection of kidney transplant candidates toward younger and less immunized patients and the acceptance of mostly younger deceased donors make presented data difficult to compare with international registries, similarly the outcomes of smaller programs in another 94 centers need to be described in the future. Despite such selection biases, Chinese centers need to be applauded for their superb outcomes.

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Conflict of interest

The author declares no conflict of interest.

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