News

Iranian Award Winner For the Best Laparoscopic Paper at the World Congress on Endourology 2004

"The Effect of Warm Ischemia Duration on Graft Outcome in Laparoscopic and Open Donor Nephrectomy" was the title of a paper rewarded with the Olympus prize for the best laparoscopic paper at the occasion of the WCE 2004 in Mumbai, India.

The Twenty-Second World Congress on Endourology was held in November 2004 and 70 researchers from Iran had papers or videos to present in the meeting. Twelve papers were from Urology/Nephrology Research Center and among which, there was a randomized clinical trial by Drs. Nasser Simforoosh, Abbas Basiri, Amir Mohsen Ziaee, Ali Tabibi, and Nasser Shakhssalim that won the first prize of the congress.

Professor Nasser Simforoosh, a distinguished urologist renowned for introducing Laparoscopic Donor Nephrectomy in the region, specialized in urology at Mt. Sinai Medical Center, Chicago, USA in 1981. Immediately after finishing his studies in the US, he came back to Iran and found the urology department (1981) and then kidney transplant department (1982) at Shaheed Labbafinejad Medical Center, Tehran. He and his colleagues started the first planned living-unrelated donor transplantation in 1984 and subsequently, Iran has the largest experience of living-unrelated donor kidney transplantation, with superior results to cadaveric transplantation and comparable survival rates with living-related transplantation. Thanks to their pioneering attempts in 2000, Shaheed Labbafinejad Center came first in performing laparoscopic donor nephrectomy in the Middle East, now enjoying the record of 2300 transplantations and over 400 laparoscopic donor nephrectomies. One of the interesting points in their exclusive modified technique is the highly cost-effectiveness of the procedure that can be advocated in developing countries; they could save $600 in each nephrectomy by the use of medium-large clips instead of endo GIA and extracting the kidney via a suprapubic approach using hand instead of ENDO-CATCH bag.

As one of the most active transplant centers in the country, their department has conducted a vast educational program of kidney transplant and laparoscopic donor nephrectomy, through which the transplant team has expanded its experience all over Iran. This has led to over 17000 kidney transplantations being performed in 25 centers in Iran, at least 5 of those using laparoscopic approach.

Professor Simforoosh has presented more than 80 papers at international meetings, 20 of which published in reputable journals worldwide. He was also elected as Iran’s Professor of the Year in 1998. This “gentleman with a gentle manner” (as described in the WCE daily newsletter) who is stepping into the 7th decade of his life, is at the moment the active leader of an outstanding kidney transplant team “heading a very busy urology department at Shaheed Beheshti University in Iran”.

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A Unique Study

Comparison of the outcomes of kidney allografts from laparoscopic donor nephrectomy with those from open donor nephrectomy has been reported in many studies, but a unique one has been carried out by Professor Simforoosh and co-workers; a randomized clinical trial was set up after gaining experience from 90 cases of laparoscopic donor nephrectomies, and included 100 cases of laparoscopic donor nephrectomies and 100 of open donor nephrectomies performed between July 2001 and September 2003. They showed that serum creatinine levels and graft survival rate in the two groups were not different (Comparison of laparoscopic and open donor nephrectomy: a randomized controlled trial, Simforoosh N, et al. BJU Int. In press). Warm ischemic time is longer in laparoscopic donor nephrectomy, but they believe that it does not impact the outcome. Accordingly, a part of the randomized clinical trial was to focus on warm ischemic time. The results were discussed in a paper presented in WCE 2004, which won the award of best presentation. The abstract of this paper is as follows:

The Effect of Warm Ischemia Duration on Graft Outcome in Laparoscopic and Open Donor Nephrectomy

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Introduction: To assess the impact of warm ischemia duration on graft outcome (delayed graft function [DGF], graft loss, and graft function) in laparoscopic and open donor nephrectomy (ODN).

Method: A hundred kidney donors undergoing laparoscopic donor nephrectomy (LDN) were compared with an equal number of open donor nephrectomy cases, in the first reported randomized controlled trial. Graft outcome was compared between the 2 groups. Also, we divided the laparoscopically harvested kidneys into 3 groups according to their warm ischemia times (Group A: 4-6 minutes, Group B: 6.1-10 minutes and group C:>10 minutes) to compare graft outcome between these three groups.

Result: Mean follow-up in LDN and ODN groups was similar (406.1 versus 403.8 days, P = 0.9). Although mean kidney warm ischemia time in LDN was significantly longer than in ODN (8.7 versus 1.87 minutes, P = 0.00), the graft outcome was similar in the two groups. Long-term graft survival in the laparoscopic and open groups was 93.8% and 92.7%, respectively (P = 0.7). Also, graft outcome (DGF, graft loss and mean serum creatinine) was not significantly different between the 3 groups in the LDN cases.

Conclusion: Different levels of warm ischemia time in LDN were not associated with an adverse outcome in kidney transplantation. Consequently, it is not reasonable to rush to decrease warm ischemia time at the expense of jeopardizing kidney donors during LDN.