ABO Incompatible Living Donor Kidney Transplantation (ABOi KT): An Update

Jin Min Kong

ABOi KT is now an established procedure with the reported outcomes of patient and graft in the last decade have been equivalent to those obtained with ABO compatible KT. Since about one-third of potential living donors are blood-group incompatible, ABOi KT can substantially increase the living donor KT.

Since the first successful ABOi KT program launched in 2007, the number of patients and participating centers has rapidly expanded. A total of 893 ABOi KT have been performed between 2007 and 2014, and in 2014, the number of ABOi KT (n=217) comprised 21.7% of all the living-donor KTs in Korea. South Korea became the area of world largest number of ABOi KT per population.

The protocols of ABOi KT is highly uniform across the different centers. Rituximab is routinely administered. Splenectomy is not performed. Pretransplant plasmapheresis is routinely performed, but posttransplant plasmapheresis was implemented in selected patients with higher posttransplant anti-ABO level. Anti-Il-2R induction and FK-based triple immunosuppressants was used in most patients. The target anti-ABO titer on transplant day was 8 or 16.

Patient and graft survival of ABOi KT in Korea calculated using the database of Korean Network for Organ Sharing (KONOS) and Korean Organ Transplantation Registry (KOTRY) will be presented. The data comparing the outcome of ABOi KT with that of compatible KT will also be presented with a short review of literatures in this field.