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 Editorial comments

## A Struggle For Kidney Transplantation in a Developing World?

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According to the recent data and scientific evidence there is even more kidney disease than had been previously thought. An annual treatment of end stage renal disease (ESRD) in developed countries worldwide is increasing for as many as 250.000 new cases each year [1], reaching around 1.5 million patients nowadays. The same trend of ESRD is observed in the developing world but the vast majority of people could not have the benefit of dialysis and especially transplantation because of the economic and technological inequality between these two worlds.

Organ transplantation became a reality in the 20th century fascinating the mankind from time immemorial. The advances in immunology, tissue matching, immunosuppression and surgical techniques coupled with an early detection and treatment of rejection and the control of infection have led the organ transplantation as the ultimate therapy for all end stage organ failures with kidney transplantation being among the most successful ones. Although having all prerequisites for a bright future in fact transplantation became a victim of its own success. Namely, the shortage of donor organs is increasing in parallel with the increased number of indications for transplantation. Because of the growing gap between organ supply and demand, many patients die waiting for an organ each year.

The economic deprivation in developing countries and the very modest expenditure on health care translates into poor transplantation activity, with a rate of less than 10 per million population (pmp), far below number in contrast to the developed world at around 50 pmp. Not only the economic constraint but also a lack of public awareness, education and motivation for organ donation as well as the low number of organized teams of urologists, nephrologists and pathologists might have also been considered as additional factors for an insufficient transplant program. Donor shortage is assumed as a universal problem that is even more prominent in regions like the Balkans where cadaver transplantation has not yet been developed and living donor transplantation remains the most frequent procedure. The introduction of expanded criteria for living donation including elderly and marginal donors [2] as well as the ABO incompatible living donation [3] could just ameliorate the magnitude of the problem. Hence, because of the limited chance of receiving a kidney transplant for the aforementioned reasons, a lot of desperate dialysis patients procure an unrelated donor kidney transplant ("renal commerce") against all medical advice. This type of renal paid transplantation formerly from India and nowadays in Pakistan has been associated with several medical and social problems [4]. Many surgical complications and invasive opportunistic infections increase the morbidity and mortality in this group of transplant recipients [5, 6]. Expectedly, the one year patients and graft survival were found to be as much as 85% and 70%, respectively [7]. In summary, the lack of information from the transplanting center regarding both donor

and recipient and the associated, unacceptable risks on the graft and patient survival in unrelated, paid transplant recipients reinforce the standpoint that this practice should be abandoned.

On the other hand the ethical dilemmas of the paid kidney donors who purchase the organ for price from \$ 1000 - 3000 and the rate of ESRD patients thereafter remain to be elucidated [8]. Besides the reforms in the judicial system, the solution for less likely renal commerce would be to alleviate poverty and to increase education that is rather difficult measure for implementation in these countries.

The question how to improve the current status in terms of increasing number of living and especially cadaveric kidney transplants in developing countries is rather intriguing. An increased attention to the problem throughout public sessions, governmental support in providing the necessary economic, organizational and infrastructural investments, as well as motivated teams of committed workers might be a few key points to start with. As professionals we just have to reinforce our efforts according to the wisdom of Goethe: "Knowing is not enough, we must apply. Willing is not enough, we must do".

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