

Country Data

Social Aspects of Kidney Donation in Tunisia: a Study of 189 Living Related Donors

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Abstract

Introduction: Our aim was to study the demographic and social characteristics of 189 living related kidney donors in Tunisia, and explore some of the social consequences of kidney donation.

Methods: This is a descriptive retrospective study of 189 living related kidney donors who had their nephrectomy in Charles Nicolle Hospital between 1986 and 2009. The demographic and social characteristics at the time of donation were studied and changes in the social and occupational status after donation were assessed.

Results: The average age at the time of donation was 41.8 ± 12.1 years (range: 20-67 years). Female predominance (59.2% of cases) was noted. Donors were siblings in 46% of cases, parents in 42% of cases and spouses in only 9% of cases. There were more mothers than fathers, more wives than husbands, but fewer sisters than brothers. Twenty-six percent of donors were illiterate and 40% were unemployed at the time of donation. After donation, the social status remained stable for 70% of donors. No divorces were reported. The occupational status was unchanged in 94% of cases. Sixteen percent of female donors had at least one pregnancy after nephrectomy. Nearly 90% of surveyed donors whose recipients were alive at the time of the survey were still in favor of kidney donation.

Conclusions: Women play an important role in living related kidney donation in Tunisia. Family situation and occupational status did not seem to be compromised after nephrectomy, and most donors were willing to donate if the decision was to be repeated.

Key words: Kidney Transplantation; Living Donors; Social Conditions

The authors declared no conflict of interest

Introduction

Renal transplantation began in Tunisia in 1986. Because of the scarcity of deceased donors, most of the kidneys come from living donors who have increased remarkably in numbers. In our center, 377 kidney transplants from living donors took place between 1986 and 2009, starting with 5 grafts in 1986 and reaching 28 grafts in 2009.

There is a growing interest in the psycho-social aspects of kidney donation, alongside its medical aspects. However, the social aspects of kidney donation have not been studied yet in Tunisia.

Our aim was to study the social characteristics of 189 Tunisian kidney donors, and to explore some of the social and occupational consequences of kidney donation.

Methods

Between 1986 and 2009, 377 nephrectomies for kidney donation were performed at Charles Nicolle Hospital. We excluded 46 donors whose recipients died or returned to regular dialysis and three unrelated kidney donors. Of the remaining subjects, 86 donors were lost to follow up, 7 donors were from other African countries and were living abroad, 2 donors were Tunisian but were also living abroad, and 44 donors were contacted but declined to participate in the study.

Accordingly, data was collected from 189 living related donors; 61 donors were summoned and interviewed and 128 donors were interviewed by telephone. Collected data included age, relationship to the recipient, educational level, marital status and occupation at the time of donation. Changes in social status and profession after

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kidney donation were documented. Personal opinion regarding the donation was obtained from 158 donors.

Results

The mean age at the time of nephrectomy was 41.8 ± 12.1 years (range: 20-67 years). Thirteen donors (6.8% of cases) were older than 60 years. We noted a female predominance with 77 men and 112 women (male : female ratio 0.68).

One hundred and sixteen donors (61%) were married and 62 donors (33% of cases) were single. The marital status of 11 donors was unknown. Forty two percent of donors were parents; more frequently mothers (30% of cases) than fathers (12% of cases). Forty six percent of donors were siblings, more frequently brothers (30% of cases) than sisters (16% of cases). Kidney donation between spouses started more recently in 2001. Spouses accounted for only 9% of donors, with more wives donating to their husbands (8% of cases) than husbands donating to their wives (only 1% of cases). Among the remaining donors, there were two offspring, a cousin, a nephew and a niece.

Among studied donors, 28% were illiterate; the illiteracy rate in Tunisia was 33.3% in the mid 90's and 25.7% in 2004. Twenty six percent of donors had primary school education, 23% had secondary school education and 14% were university graduates. Educational level at the time of donation was unknown for 19 donors. Compared to a national unemployment rate of 15.8% in 1994 and 14.2% in 2004, 40% of our donors were unemployed, with no steady income at the time of donation.

After donation, the marital status remained stable for 70% of donors. No divorce was recorded. Thirty-five percent of single donors got married (34% of male donors and 36% of female donors). Eighteen female donors (16% of cases), including four women who donated their kidneys to their husbands, had at least one pregnancy after nephrectomy. Concerning the occupational status, it remained unchanged in 94% of cases, while it improved or deteriorated in equal proportions for remaining donors.

Among the 158 donors who were asked about their feeling regarding kidney donation, 90% were still in favor of kidney donation.

Discussion

To assess the safety of living kidney donation, several authors have studied the psycho-social impact of nephrectomy on donors and its repercussions on their quality of life [1-3]. We believe that this impact differs from one population of donors to the other depending on their socio-cultural characteristics.

The proportion of donors older than 50 years at the time of nephrectomy has almost doubled in the past 20 years [4]. In our study, it reached 28%. The predominance of female donors compared to male donors is similar to the trend in most other centers [5, 6], although male predominance has also been described [7]. Concerning the relationship with the recipient, the majority of donors were parents or siblings with a low percentage of spouses and offspring. This is the pattern most frequently reported in the literature [3, 6, 8]. In contrast, a relatively high rate of spouse donation (38.2% of cases) was described by Wiedebusch *et al* [1].

In a German study of 63 living donors, a change in the family situation after kidney donation was observed in 10.6% of cases [2]. Clemens *et al* reported divorce among 6% of donors after nephrectomy [9]. According to Smith *et al*, one third of divorced donors incriminated kidney donation as the reason for separation [10]. In our series, the family situation has not changed in 70% of cases and no divorce has been reported. We have perceived that some Tunisian women are culturally reluctant to donate their kidneys because of fear of compromising their chances in marriage. In our series, 34% of single female donors got married after nephrectomy. A high rate of pregnancy in female donors was reported after kidney donation by many authors [11, 12]. In our study, sixteen percent of female donors had at least one pregnancy after nephrectomy.

The professional status remained unchanged or improved in 97% of our donors. In the study by Reimer *et al*, 81% of donors had no professional problems related to donation [2]. In another long-term study, no donor has been downgraded in his work [11].

Most of donors reported positive perceptions about donation and did not regret their decision. This has been established by several studies whereby more than 90% of donors would donate their kidneys if the decision was to be repeated [1-3, 8, 9, 13]. However, the exclusion of 46 donors whose recipients died might have affected the result of perception of kidney donation in this study.

Conclusion

Women play an important role in living related kidney donation in Tunisia. Family situation and occupational status did not seem to be compromised after nephrectomy, this may explain the disposition of the majority of donors to donate their kidneys if the decision was to be repeated.

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