

It has been widely demonstrated that kidney transplantation is the best therapeutic alternative for replacing the loss of function, since it results in higher survival rates, a better quality of life and less physical wear in comparison with all other methods of replacement, as well as being less expensive.

There are over 8000 patients registered on the national kidney transplant waiting list and there have been less than 2500 transplants per year in recent years; 75% come from a living donor.

Mexico City introduced a Law on Advance Directives (LVA) in 2008.² The objective of the aforementioned law is to respect the dignity of people whose health is declining and to avoid both the obstinacy and therapeutic abandonment of patients with a terminal illness. Article 8 of the law provides for the desire to be expressed to donate organs for transplantation. Nevertheless, this law, which could have beneficial effects for the obtaining of organs, is not very well known according to studies that we have carried out.

Qualitative research was carried out with a semi-structured interview, which had previously been validated, to document the knowledge of the inhabitants of Mexico City about the LVA.

In total, 278 people including patients and family members were interviewed in three emblematic hospitals of three socioeconomic levels in the city: a private hospital, a Social Security hospital and a general hospital for people without formal employment and with limited resources. The interview consisted of 17 questions and data included age, sex, occupation and education.

As regards the results, the average age was 41 years, 53% were female, 18% had basic education, 45% had secondary education and 37% had higher education.

Of the people surveyed, 64% did not know the LVA. Of those who did (n = 100), only 43% knew about the part that refers to the

donation of organs. Independently from knowledge of the law, 68% of all those surveyed intend to donate their organs for transplantation.

The poor coverage that the LVA has been given by the Mexico City authorities is both surprising and regrettable. It is striking that other laws with bioethical implications in the same city have been very well broadcasted by all the mass media: television, radio, press, Internet, billboards, public transport video clips, metropolitan bus advertisements, etc. However, on this law, that could have had a positive impact for transplants, they remained silent.

On occasions it seems that laws which may have consequences for health matters may be stifled because of the ideology of the political party in power, which awaits conditions for legislation that agrees with their cultural ideology.

Conflicts of interest

The authors declare that they have no conflicts of interest related to the contents of this article.

1. Franco-Marina F, Tirado-Gómez LL, Venado-Estrada A, Moreno-López JA, Pacheco Dominguez RL, Duran Arenas JL, et al. Una estimación indirecta de las desigualdades actuales y futuras en la frecuencia de la enfermedad renal crónica terminal en México. *Salud Publica Mex* 2011;53 Suppl 4:506-15.
2. Ley de Voluntad Anticipada para el Distrito Federal. *Gaceta Oficial del Distrito Federal*. 7 de Enero de 2008.

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Delayed introduction of tacrolimus in sub-optimal kidneys. A short-term follow-up study in the University Hospital of Salamanca

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To the Editor:

In an attempt to satisfy the growing demand for kidney grafts, several hospitals have gradually expanded their criteria for accepting marginal and sub-optimal kidneys (generally derived from elderly donors or those with a risk for a potential reduction in nephron mass), which currently constitute 50% of all grafts.¹ These organs are associated with a greater incidence of acute ischaemic renal failure, acute tubular necrosis (ATN), greater plasma creatinine levels, and delayed graft function, which can all contribute to increasing the rates of acute rejection.²

Calcineurin inhibitors (cyclosporine A and tacrolimus) are essential medications for maintenance immunosuppression therapy. The mechanism of action of these drugs is to block interleukin (IL) 2, IL-2 and IL-4 receptors, and gamma interferon. The most characteristic side effect of these drugs is nephrotoxicity, due to the increased expression of transforming growth factor beta (TGF-β), which contributes to interstitial fibrosis and the synthesis of nitric oxide and endothelin, which have vasomotor properties.³ This effect is increased in marginal kidneys, which often present interstitial fibrosis, vascular involvement, and glomerulosclerosis.⁴

In order to minimise the nephrotoxicity of these drugs in sub-optimal grafts, several different strategies have been tested, such as reducing doses or delaying introduction of treatment. The latter has produced positive long-term results, with low rates of acute rejection and acceptable levels of renal function.⁵

We examined the short-term influence of delayed introduction of calcineurin in-

hibitors among patients who received kidney transplants from marginal donors at the University Hospital of Salamanca, comparing the effects of the drug in these patients with another group of recipients of young kidney transplants who received treatment from the start. We performed an observational, descriptive, cohort study of all transplants carried out at our hospital between 2008 and 2011. Patients were divided into two groups: recipients of standard kidneys, who received tacrolimus treatment starting before the transplant was performed, and sub-optimal kidney recipients (donor and recipient older than 55 years of age, cold ischaemia time greater than 1 day, cardiovascular death, serum creatinine greater than 2mg/dl, and non-heart beating donors), in which the medication was introduced on the fourth day. All other immunosuppression was maintained in both groups: basiliximab, steroids, and mycophenolate mofetil, as well as anti-infection treatment.

The variables analysed included: creatinine at the time of patient discharge and the presence of ATN, acute rejection, and infections within three months after transplantation. We used SPSS® statistical software, version 15.0, for all statistical analyses, which involved Student's t-tests and chi-square tests, using a significance level of $P < .05$ and expressing variables as percentages, means, standard deviation, and relative risk.

During the study period, a total of 160 patients received kidney transplants. Of these, 43.8% received pre-transplant tacrolimus, and 56.3% re-

ceived tacrolimus starting on the fourth day post-transplant.

Mean creatinine in the early introduction group was 1.9 ± 1.25 mg/dl, and this value was 2.64 ± 1.48 mg/dl in the late introduction group ($P = .098$). All other results are expressed in Table 1.

The late introduction of calcineurin inhibitors is safe in the short-term, since, in comparison with grafts from young donors in which recipients received immunosuppression from the start, these patients did not exhibit a significant increase in parameters for renal dysfunction or secondary side effects. In this manner, the differences observed between the two groups may be due simply to the worse condition of marginal kidneys, rather than being due to any negative influence of the late introduction of medication on the immediate post-transplant patient evolution.

The results of our study, together with the results from previous studies that have established long-term safety, support the use of this immunosuppression regimen for treating recipients of marginal kidney grafts.

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1. Port FK, Bragg-Gresham JL, Metzger RA, Dykstra DM, Gillespie BW, Young EW, et al. Donor characteristics associated with

reduced graft survival: an approach to expanding the pool of kidney donors. *Transplantation* 2002;74(9):1281-6.

2. Gaston RS. Our evolving understanding of late kidney allograft failure. *Curr Opin Organ Transplant* 2011;16(6):594-9.
3. Nankivell BJ, Kuypers DR. Diagnosis and prevention of chronic kidney allograft loss. *Lancet* 2011;378(9800):1428-37.
4. Fernández-Rodríguez A, Marcén-Letosa R, Galeano-Álvarez C. Importance of elderly donors as a source of valid organs for renal transplantation: where is the limit? *Nefrología* 2012;32(4):427-31.
5. González-Roncero FM, Gentil-Govantes MÁ, González-Molina M, Rivero M, Cantarell C, Alarcón A, et al. Late evolution of kidney transplants in elderly donors and recipients receiving initial immunosuppressant treatment with daclizumab, mycophenolate mofetil, and delayed introduction of tacrolimus. *Nefrología* 2012;32(4):446-54.

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Terminal chronic kidney disease in Gambia.

A one-year study

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To the Editor:

Terminal chronic kidney disease (TCKD) is an important issue for public health, given its high incidence, prevalence, morbidity and mortality and socioeconomic cost.¹

No reliable statistics exist in Africa concerning the incidence of TCKD and

Table 1. Comparison of the appearance of complications between the two study groups

	Early Tacrolimus	Late Tacrolimus	RR	P
Acute tubular necrosis	8.6 %	18.8 %	0.605 (0.277-1.320)	0.093
Early infections	15.7 %	24.4 %	0.482 (0.199-1.168)	0.176
Acute rejection	11.4 %	18.9 %	0.643 (0.335-1.235)	0.197

^a RR: relative risk.