

## Case Report

# Pregnancies In Post Kidney Transplantation About 10 Cases

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## Introduction

Patients with chronic renal failure have a very low fertility and high risk pregnancy due to hormonal and metabolic disorders secondary to uremia [1]. Transplantation has markedly improved survival quality of life and restored fertility [2,3]. The first pregnancy was completed in 1963 [2]. Currently 01 transplanted in 50 of childbearing age begins a pregnancy [4,5]. Pregnancies in these patients are at risk of maternal but especially fetal complications with spontaneous or therapeutic interruptions of pregnancy, Prematurity and fetal hypotrophy, on the other hand. The risk of rejection is low [6]. Therefore, the purpose of our study is to report pregnancies in our transplant patients, their evolutionary aspects and a view of the literature.

## Materials and Methods

Our study is descriptive which relates to 13 pregnancies in 11 patients among 92 transplanted renal from an apparent living donor since December 2006 to may 2022. In our study we specified the initial nephropathy in the cases where it is determined, the age at the time of transplantation, the delay between renal transplantation and conception, the immunosuppressive treatment received, the follow-up in consultation of nephrology was monthly, the maternal surveillance was based on arterial pressure, the practice of a renal balance, 24 hour proteinuria, fetal monitoring was based on perception of fetal movements, auscultation of heart sounds, practical ultrasound to assess in utero growth. The follow-up of the renal transplants is 2 after the delivery and includes the measurement of the blood pressure, practice of urine test strip, renal assessment and a dosage of the proteinuria of the 24h.

## Results

The average age of our patients at the time of kidney transplant was 27 years old. The initial nephropathy was determined in only 03 patients, reflux nephropathy, diabetic nephropathy and

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glomerulonephritis for the other, it remains indetermined in the others. Their average age at conception is 30 years old. The delay between renal transplantation and conception in our patients is 03 years. 07 were nulliparous at the time of renal transplantation, 01 only had already 02 children. The immunosuppressive treatment was the same in all our patients and included: anticalcineurins (03 under tacrolimus, 05 under ciclosporine), azathioprine corticoids. No case required a changé in treatment doses throughout pregnancy. The average creatinine in our renal transplant patients during pregnancy was 12.4 mg / l with an elevation of this latter in 04 cases, up to 35 mg / l in a case which returned to its basic. There were 02 cases of gestational diabetes, 03 cases of hypertension, and 1 case of toxemia of pregnancy which was associated with an eclampsia crisis requiring emergency fetal extraction. No cases of rejection were observed. For fetal complications, there were 02 cases of deaths in utero, 1 case of abortion, 4 premature with small weights, 01 case of severe growth retardation.

## Discussion

Renal transplantation has improved the fertility of patients with renal failure and has given them the chance to have successful pregnancies [1]. Several registers have studied the evolution of pregnancies in these patients, evolution of the graft function and the fetal and neonatal development of which the «National Transplantation Pregnancy Registry» or «NTPR» [7]. The onset or aggravation of arterial hypertension during pregnancy in renal transplant patients is a frequent phenomenon of the order of 38-56% [8,9]. Preeclampsia varies from 20 to 30% in published series [8-10]. In our study 03 cases of high blood pressure have been reported including a case of preeclampsia. Gestational diabetes occurs in kidney transplant patients in 01 to 11% of cases [11,12], in our study we noted 02 cases. Acute rejection of the graft does not occur more frequently during pregnancy [10,13], which results in a moderate decrease in rejection capacity [14]. It affects approximately 09% of patients and occurs mainly in late pregnancy. We have not observed any case in Our study. On the other hand, the process of chronic rejection probably continues during pregnancy, without being aggravated by it for the majority of authors [8,10,13]. The risk of fetal complications is similar to that of the general population of renal transplant recipients, especially if the creatinine level is less than 150  $\mu\text{mol} / \text{l}$ . Prematurity is more common in kidney transplants than in the general population (40 to 92% vs. 12.5%) [3,15,16]. It depends on the delay between the beginning of pregnancy and renal transplantation, the presence of arterial hypertension and creatinine > 150  $\mu\text{mol} / \text{l}$  [3,15-18]. Thus the mean term at delivery is 37 weeks of amenorrhoea when the preconceptional creatinine was 121  $\mu\text{mol} / \text{l}$  and 32 weeks below amenorrhoea when it was greater than 200  $\mu\text{mol} / \text{l}$  [18,19]. In our series we had 100% prematurity. Fetal hypotrophy is more frequent than in the general population (8 to 45% of cases), regardless of the term of delivery. In our study, fetal hypotrophy was observed in 04 cases.

## Conclusion

The good evolution of pregnancies in renal transplant patients necessitates the respect of some conditions. It is important that

pregnancy be planned and considered a risk pregnancy. It is reasonable to wait at least 2 years after renal transplant to schedule pregnancy, normal blood pressure, stable renal function and absence of proteinuria. The long-term survival of the renal graft is not affected, but it is especially the risk of fetal complications that is important in case of non-compliance with these conditions. A multidisciplinary collaboration between nephrologist, gynecologist and pediatrician is required.

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