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KIDNEY TRANSPLANTATION IN PATIENTS WITH AA AMYLOIDOSIS: A FRENCH MULTI-CENTER MATCHED COHORT STUDY IN THE ERA OF BIOTHERAPIES

Chloe Schwarz[1,2], Sophie Georgin Lavialle[3], Olivier Marion[4], Frédéric Jambon[5], Christophe Legendre[6], David Marx[7], Charlène Levi[8], Fatouma Toure[9], Moglie Le Quintrec[10], Mickaël Bobot[11], Marie Matignon[12], Amaury Dujardin[13], Mehdi Maanaoui[14], Sébastien Cuozzo[15], Arwa Jalal-Eddine[16], Kevin Louis[17], Inna Mohamadou[18], François Brazier[19], Tristan De Nattes[20], Claire Geneste[21], Eric Thervet[22], Didier Ducloux[23], Valentin Mayet[24], Raphaël Kormann[25], Antoine Lanot[26], Agnès Duveau[27], Mohamad Zaidan[2], Laurent Mesnard[1], Nacera Ouali[1], Eric Rondeau[1], Camille Petit-Hoang[1], Vincent Audard[12], Aurélie Deshayes[28], Anissa Moktefi[29], Marion Rabant[30], David Buob[31], Helene Francois[1] and Yosu Luque[1]

[1]Tenon Hospital, Nephrology, Paris, France, [2]Bicetre Hospital, Nephrology, Le Kremlin-Bicêtre, France, [3]Tenon Hospital, Internal Medicine, Paris, France, [4]Hospital Center University De Toulouse, Nephrology, Toulouse, France, [5]CHU de Bordeaux - Hôpital Pellegrin, Nephrology, Bordeaux, France, [6]Necker Hospital, Kidney Tranplantation, Paris, France, [7]Strasbourg University Hospital, Strasbourg, France, [8]Hospices Civils de Lyon - HCL, Kidney Tranplantation, Lyon, France, [9]CHU Dupuytren 1, Nephrology, Limoges, France, [10]Hospital Center University De Montpellier, Nephrology, Montpellier, France, [11]Hospital La Conception, Nephrology, Marseille, France, [12]Henri-Mondor University Hospital, Nephrology, Créteil, France, [13]University Hospital of Nantes, Nephrology,, Nantes, France, [14]Hospital Center University De Lille, Nephrology, Lille, France, [15]Nice University Hospital, Nephrology, Nice, France, [16]Hospital Foch, Nephrology, Suresnes, France, [17]Saint-Louis Hospital, Nephrology, Paris, France, [18]University Hospitals Pitié Salpêtrière - Charles Foix, Kidney Tranplantation, Paris, France, [19]CHU Amiens-Picardie, Nephrology, Amiens, France, [20]Hospital Center University De Rouen, Nephrology, Rouen, France, [21]Chru Tours - Site Bretonneau, Nephrology, Tours, France, [22]European Hospital Georges Pompidou, Nephrology, Paris, France, [23]Hospital Jean-Minjoz, Nephrology, Besançon, France, [24]Clermont-Ferrand University Hospital, Nephrology, Clermont-Ferrand, France, [25]Nancy University Hospital, Nephrology, Vandœuvre-lès-Nancy, France, [26]University Hospital Center of Caen, Nephrology, Caen, France, [27]Angers University Hospital Center, Nephrology, Angers, France, [28]Biomedicine Agency, Saint-Denis, France, [29]Henri-Mondor University Hospital, Pathology, Créteil, France, [30]Necker Hospital, Pathology, Paris, France and [31]Tenon Hospital, Nephrology, Paris, France

Background and Aims: Outcomes of kidney transplantation for patients with renal AA amyloidosis are uncertain, with reports of poor survival and high

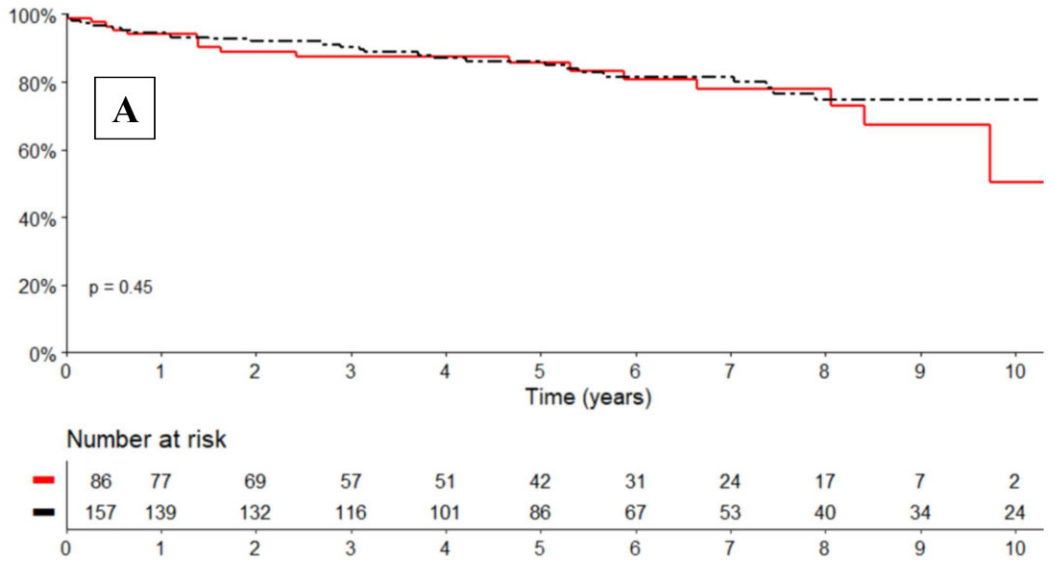

Figure 1: Kaplan-Meier estimates of patient survival (A) and death-censored graft survival (B) in AA amyloidosis patients and in controls. Tables represent patients at risk in each group. Statistical difference was assessed with the Log-rank test.

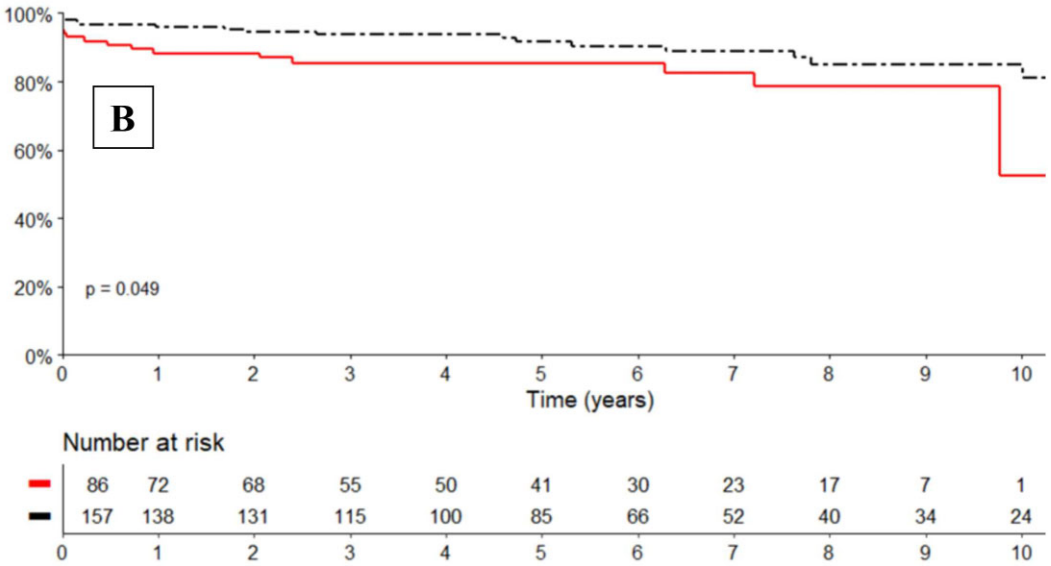

Figure 2:

allograft recurrence. However, recent advances in biotherapies, especially anti-IL-1 treatments, may have improved patients' outcome in the transplantation setting.

Method: We conducted a retrospective multicenter matched cohort study in 26 French centers reporting all patients with AA amyloidosis who received a kidney transplant between 2008 and 2018, and compared them to matched control patients (ratio 1:2 controls) who received a kidney transplant for other causes

Results: Eighty-six AA amyloidosis transplants and 157 control transplants were included. Median age was 49.4 years (interquartile range 39.7-61.1), and the main cause of amyloidosis was Familial Mediterranean Fever (37 cases, 43%). Sixteen (18.6%) patients received a biotherapy after transplantation. At 5 years, patient survival was 85.5% (95% confidence interval 77.8-94.0) and 86.2% (80.5-92.2) for cases and controls, respectively ($p = 0.5$). Death censored graft survival was 78.2% (78.2-93.5) and 91.7% (87.0-96.6), respectively ($p = 0.05$). Histologically proven AA amyloidosis recurrence was found in 5 patients (5.8%). 55.8% of amyloid patients had at least one infection requiring hospitalization and 27.9% an episode of acute graft rejection. In this group, multivariable analysis showed that CRP concentration at time of transplantation was associated with patient survival (HR 1.01, $p = 0.01$).

Conclusion: In this recent cohort, patient survival was comparable to controls and recurrence rates were lower than previously reported. Provided the underlying inflammatory disease is well controlled, patients with AA amyloidosis may be transplanted with similar patient and graft outcomes than that of matched controls.