

Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

Elsevier hereby grants permission to make all its COVID-19-related research that is available on the COVID-19 resource centre - including this research content - immediately available in PubMed Central and other publicly funded repositories, such as the WHO COVID database with rights for unrestricted research re-use and analyses in any form or by any means with acknowledgement of the original source. These permissions are granted for free by Elsevier for as long as the COVID-19 resource centre remains active. **Conclusions:** In this case series the first two patients had a UL97 mutation at codon 595 and codon 460 respectively, both known to confer high grade ganciclovir resistance. Treatment with high-dose GCV, CMV IG and decreasing IS, was successful with no need of potentially nephrotoxic drugs like foscarnet. Host factors need also to be addressed. In the third patient we hypothesized that valproate conferred delayed response to GCV and that its suspension may have helped viral clearance.

No conflict of interest

### **POS-765**

## RELATIONSHIP BETWEEN PRESENCE OF ANTI-HLA ANTIBODIES, KIDNEY FUNCTION AND DEGREE OF PATHOLOGICAL DAMAGE IN PATIENTS WITH KIDNEY TRANSPLANT.



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**Introduction**: Kidney transplantation is the first line treatment for patients with end-stage kidney disease. The presence of Donor Specific Antibodies (DSA) in Human Leukocyte Antigen (HLA) is considered a risk factor for graft loss. Biopsy histological damage, renal function and complications within a year of kidney transplantation with and without HLA antibodies, was evaluated.

**Methods:** Retrospective, longitudinal, analytical study. All kidney transplant recipients 18 years and older, transplanted 2015-2017, with DSA determination and graft biopsy in the first year of transplantation, were included.

**Results:** One hundred twenty four patients were included. Average age was 48 +/- 14 years. The distribution by sex was higher for males 62%, 52 were living donors and 72 deceased donors. GROUP A: 44% of all patients had antibodies, of which 56% had anti-HLA Class I antibodies and 44% anti-HLA Class II antibodies. GROUP B: Negative antibodies patients (56%). In both groups, the three most frequent pathological results were Interstitial Fibrosis and Tubular Atrophy Grade I (Group A: 62% -Group B: 46%), followed by Chronic Graft Glomerulopathy Grade I / Interstitial Fibrosis and Tubular Atrophy Grade I (Group A: 10% -Group B: 12%) and Mild mesangial expansion (Group A: 8% -Group B: 7%). There was no significant difference between both groups. Mean creatininemia in both groups was 1.4 mg / dl (p = 0.54). In group A, 62.3% of the patients had complications and in group B 56.3% (OR 1.28 CI 0.6-2.6 p 0.58). The most prevalent transplant complication was urinary tract infections (Group A 22% - Group B 18%) in both groups, no significant difference.

**Conclusions:** In absence of rejection, HLA antibodies are not associated with histological damage, creatinine increase or transplant complications during the first year.

No conflict of interest

#### **POS-766**

# COVID-19 INFECTION IN KIDNEY TRANSPLANT RECIPIENTS : EXPERIENCE OF NEPHROLOGY DEPARTMENT OF SAHLOUL HOSPITAL



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**Introduction:** Infections related to the novel coronavirus SARS-CoV-2 had affected people from many countries and caused deaths worldwide. Little is known about risk, presentation and outcomes of SARS-CoV-2 (COVID-19) infection in kidney transplant recipients, who may be at high-risk due to long-term immunosuppression, comorbidity and residual chronic kidney disease. Clinical features, management, and outcomes were recorded.

**Methods:** COVID-19 infections were diagnosed in 7 patients of our cohort of 300 kidney transplant recipients; they were screened for baseline and transplant characteristics, functional parameters, comorbidities, and immunosuppressive therapies. A standard strategy of immunosuppression minimization was applied: discontinue the

antimetabolite drug and reduce trough levels of calcineurin or mammalian target of rapamycin inhibitors.

Results: Among 300 kideny transplant recipients performed between 2008 and 2019 in our department, 7 patients (2.3%) have had an infection with the new Coronavirus (COVID-19). Their mean age was 41.57±16 years; 4 men and 3 woman. Concerning maintenance immunosuppressive therapy: all patients received immunosuppression combining corticosteroids, MMF; one patient was also on Sirolimus and 4 others were also receiving anticalcineurins. For these infected patients, the mean time of years of transplantation was 8 years. Comorbidities such as diabetes and arterial hypertension were noted in 3 patients, liver damage in one patient and obesity in one case. Most common initial symptoms included fever, cough, or dyspnea. Four patients (57.1%) required hospitalization because of hypoxia requiring oxygen therapy. Of those patients, 3 had computed tomography of the chest at admission which showed mild and moderate involvement. Immunosuppression reduction was initiated in 4 patients. All patients received Zinc, Vitamin C, Vitamin D, Famotidine and Enoxaparin. All patients already received antiaggregant treatment. All hospitalized patients received intravenous Cefotaxime. After a median of 10 days, all patients had a favorable outcome.

**Conclusions:** The clinical presentation of COVID-19 infection was similar to that reported in the general population. A standard strategy of immunosuppression minimization and treatment was applied. Patients with kidney transplants display a high risk of mortality. We report a serie of kidney transplants with a favorable outcome after infection with COVID-19. We found that the intensity of immunosuppression does not appear to be a factor favoring the occurrence of this infection.

No conflict of interest

#### **POS-767**

# BRIDGING THE GAP: DEVELOPING TRANSPLANT PARTNERSHIPS ACROSS BORDERS



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**Introduction:** Maintaining a kidney transplantation program in resource-limited countries is a complex task, often requiring support and expertise from abroad. In Armenia (Former Soviet Republic), living related kidney transplantations (LRDT) have been performed at a single center since 2002. As part of the ISN-TTS Sister Transplant Center program, we have developed a partnership with Guy's Hospital, UK, to support our program.

**Methods:** A retrospective chart review was performed of all patients who have undergone kidney transplant in Armenia. In addition, key stakeholders involved in the development and operation of the nation's only kidney transplant program were interviewed for an in-depth review of the history and challenges of transplantation in Armenia.

**Results:** Between 2002 and 2019, 172 LRDT's were performed (4 retransplantations). Following implementation of the transplant partnership, mean number of transplantations per year increased from 8.6 transplants per year (2002-2016) to 14.3 transplants per year (2017-2019). The mean age of recipients was  $34.0\pm13.4$  years (range=7.1-65.7), 12 (6.9%) were children, 116 (67.4%) male. 73 patients (42%) had peri- (n=4) and postoperative (n=69), surgical complications. 17 (9.9%) patients had delayed graft function requiring hemodialysis in 10. 69 pts (40.1%) had episodes of acute rejection, 26 (15.1%) of which had more than 1 episode. Late complications included infectious (n=23) and malignant (n=13) processes. On long term follow up, 126 pts had functioning grafts, 26 lost grafts, 17 died with functioning graft, 3 were lost to follow-up. One-, 3-, 5- and 10-years graft survival was 96%, 94%, 92%, 85% - respectively.

**Conclusions:** Despite significant challenges, our data suggests that a kidney transplant program could be successfully and safely established in resource-limited countries, with acceptable outcomes. Sustained international cooperation is of utmost importance in expanding and improving transplant options.

No conflict of interest