pro-inflammatory genes, including TNFa and GM-CSF. In in vitro experiments using reporter assays, we demonstrate that the 3'UTR critically influences mRNA stability and subsequent protein translation of the TWEAK gene.
Conclusions: In summary, we demonstrate that a common single nucleotide polymorphism within the 3'UTR of TWEAK is predictive for ah/aah-lesions in renal allografts and associated with death-censored allograft survival. The 3'UTR of TWEAK critically influences mRNA stability and mRNA half-life. Current experiments focus on the precise activity of the SNP alleles on TWEAK mRNA regulation in vitro and on quantification of TWEAK mRNA stability ex vivo as a diagnostic test.
CITATION INFORMATION: Karolin A., Thottan D., Zinsli J., Rudloff S., Huynh-Do U., Banz V., Berney T., Pascual M., Müller T., d'Amico P., Binet I., Sidler D. A Single Nucleotide Polymorphism of Tweak Predicts Arterio- and Arteriolohyalinosis in Kidney Transplants and is Associated with Allograft Survival *Am J Transplant*. 2020;20(suppl 3).
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Abstract# B-88

A Large Single Center Analysis of Medical and Surgical Complications Associated with Obesity after Kidney Transplantation in the Current Era

F. Aziz, A. Ramadorai, S. Parajuli, N. Garg, M. Mohamed, D. Mandelbrot, D. Foley, M. Garren, A. Djamali, *University of Wisconsin, Madison, WI*
Purpose: Medical and surgical complications associated with obesity after kidney transplantation in the current era are unknown.
Methods: We analyzed the records of consecutive first-time, kidney only recipients transplanted at our institution between 2010-2015.
Results: We identified 1467 kidney transplant recipients during this period with a mean follow up of 5.1 ± 2.2 years. Less than 30% of the patients had BMI in normal range (BMI: 18.5 - 24.9). Obesity (BMI ≥ 30) was associated with increased 30-day post-transplant readmission ($p < 0.0001$), 30-day post-transplant re-exploration (p=0.02), delayed graft function (p=0.008), length of stay after transplant (p=0.03), higher serum creatinine at 12 months post-transplant (p=0.04), cardiovascular events ($p<0.0001$) and congestive heart failure ($p<0.0001$). Multivariate analysis showed morbid obesity BMI > 40 (HR=5.84, 95%Cl 1.40 to 24.36, p=0.015), Age > 50 at time of transplant (HR=0.45, 95%Cl 0.2889 to 0.7031, p=0.0004), post-transplant length of hospital stay >4 days (HR=1.94, 95%Cl 1.1918 to 3.1807, p=0.008), 30-day readmission post-transplant (HR=2.25, 95%Cl 1.2032 to 4.2299, p=0.01), serum creatinine >1.5 mg/dl 12-months post-transplant (HR=1.95, 95%Cl 1.2024 to 3.1825, p=0.007) and urine protein-creatinine ratio > 1gm/gm (HR=1.85, 95%Cl 1.0616 to 3.2428, p=0.03) were associated with death censored graft failure. We did not find a direct association of obesity/overweight and graft failure. However, the variables associated with increased risk of death censored graft loss were all associated with obesity/overweight.
Conclusions: In the current era of renal transplant care, obesity is common but not associated with increased risk of graft loss. However, high BMI remains associated with significant medical and surgical complications post-transplant.
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DISCLOSURE: F. Aziz: None. **A. Ramadorai:** None. **S. Parajuli:** None. **N. Garg:** None. **M. Mohamed:** None. **D. Mandelbrot:** None. **D. Foley:** None. **M. Garren:** None. **A. Djamali:** None.

Abstract# B-89

A Hybrid Data Envelopment Analysis-Artificial Neural Network (DEANN) Technique for Extrapolating the Evolution of Kidney Transplant Patients

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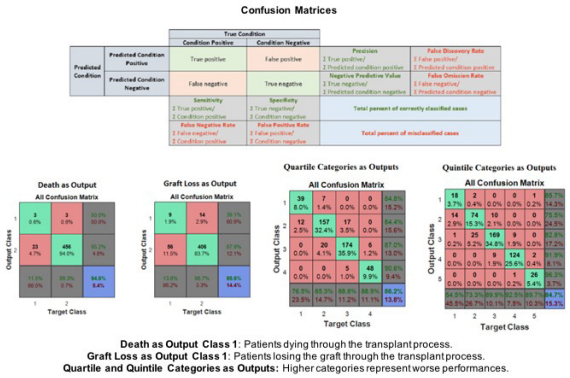
Purpose: The current study introduces a hybrid Data Envelopment Analysis (DEA) - Artificial Neural Network (ANN) technique to extrapolate the evolution of transplant patients based on the variables defining their pre-transplant profiles
Methods: We focus on Living Donor Kidney Transplant (LDKT). Twelve input variables are used to generate the transplant profiles of the patients. Their post-transplant evolution is evaluated through six negative outputs, including rejection and death. The categorization of patients according to their relative performance is defined through two stages. The first one identifies the variables on which each patient underperforms and generates an evaluation index used as a reference training set for the two-layer feed-forward ANN implemented in the second stage.
Results: Data from 485 LDKT patients was retrieved through the 2006-2015 period. Given the profiles of the patients, DEA identifies each characteristic where an inefficiency occurs on a per patient basis as well as its magnitude relative to the reference benchmark defined by the best performing patients. Patients were then divided in quartile and quintile categories used to train the corresponding ANN. For comparison purposes, we illustrate the considerably poorer performance of the ANN when a unique variable such as graft loss or death is used as the reference output to train the algorithm.
Conclusions: DEANN builds on the efficiency matrix derived from the DEA stage, which allows to train the ANN so as to extrapolate the behavior of patients based on their transplant profiles. Note that DEA can be used to incorporate fuzzy and uncertain variables to the analysis, which could not be otherwise evaluated through an ANN.



CITATION INFORMATION: Santos-Arteaga F., Di Caprio D., Cucchiari D., Campistol J., Oppenheimer F., Diekmann F., Revuelta I. A Hybrid Data Envelopment Analysis-artificial Neural Network (DEANN) Technique For Extrapolating The Evolution Of Kidney Transplant Patients *Am J Transplant*. 2020;20(suppl 3).
DISCLOSURE: F. Santos-Arteaga: None. **D. Di Caprio:** None. **D. Cucchiari:** None. **J.M. Campistol:** None. **F. Oppenheimer:** None. **F. Diekmann:** None. **I. Revuelta:** None.

Abstract# B-90

Long Term Outcomes of Kidney Transplantation in Patients with AL-Amyloidosis - The Mayo Clinic Experience

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Purpose: New clone-directed therapies and better definition of hematological response criteria allows assessment of post-kidney transplantation outcomes in patients with light-chain (AL) amyloidosis
Methods: Patients with AL amyloidosis (n=75) were classified based on hematological response at kidney transplant(KTx). Groups were: no response (NR) plus partial response (PR) (n=13, 17.3%), very good partial response (VGPR) plus complete response (CR) (n=53, 70.7%), and treatment-naive (n=9, 12.0%). Clinical outcomes were recorded for death, graft failure and complications.
Results: Majority of KTx (n=57, 76.0%) were living-related donor and maintained on tacrolimus, mycophenolate mofetil, and prednisone (85.3%). During a median follow-up of 63 months (IQR, 24-105), 5 patients lost the allograft (6.7%) and 24 (32.0%) patients died with a functioning graft. After kidney transplantation, 77.8% of the treatment-naive group achieved a CR. Patient survival at 5 years for NR+PR, VGPR+CR, and treatment-naive groups was 48.4%, 91.1%, and 77.8%, respectively. The overall median patient survival was 123 months, but 60 months in NR+PR group, 117 months in treatment-naive group. Median time to graft loss was 197 months in the all sample, but 105 months in NR+PR group, 197 months in treatment-naive group. In the VGPR+CR, median time to graft loss and patient survival were not reached($p<0.001$). Acute rejection was seen in 15 subjects (20.0%), of which 12 rejection episodes occurred at first year (80.0%) and 9 were within the first 4 months (60.0%). Recurrence of amyloid was seen in 18 patients (24.0%), with median time to recurrence of 122 months in all patients. Amyloid recurrence was identified by protocol biopsies in 13 of 18 subjects (72.2%), however this was only concurrently