

0.9, $p = 0.04$). Blacks who were inactive, and insufficiently active Hispanics had a lower chance of good/excellent diabetes control (AOR = 0.5, 95% CI = 0.2-0.9, $p = 0.03$; AOR = 0.3, 95% CI = 0.1-0.7, $p = 0.007$ respectively). DISCUSSION/SIGNIFICANCE OF IMPACT: The results show the importance of insurance coverage, food security and physical activity in diabetes control among different racial/ethnic groups. They indicate a need for affordable health care and for culturally-relevant interventions that include physical activity and food security.

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Renal Tubular Complement C9 Deposition is Associated with Renal Tubular Damage and Fibrosis in Lupus Nephritis

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OBJECTIVES/GOALS: Tubulointerstitial damage in lupus nephritis (LN) is a strong predictor of progression to chronic kidney disease and end stage renal disease (ESRD). While complement activation mediates glomerular injury, the role of complement in renal tubular damage has not been evaluated. We investigated the association between complement activation and tubulointerstitial fibrosis. METHODS/STUDY POPULATION: Patients with LN were selected randomly between July 2014 - July 2016. Chromogenic immunohistochemistry was performed on formalin-fixed, paraffin-embedded, 4- μ m human renal biopsy sections using unconjugated, murine anti-human Complement C9 (Hycult Biotech, clone X197) as a marker of the terminal complement activation. Positive control is C3 glomerulopathy and negative control is normal kidney. Tubular basement membrane C9 staining intensity were analyzed on semiquantitative scale 0 to 3 by a renal pathologist. Interstitial fibrosis/tubular atrophy were categorized into low (0-10%), medium (11-20%), or high ($\geq 21\%$). Clinical parameters were assessed at time of biopsy and 6 months post biopsy. Bivariate associations were assessed between presence of tubular C9 (C9+) and other covariates. RESULTS/ANTICIPATED RESULTS: Renal biopsies from 30 LN studied, 23 (77%) of which had proliferative LN. There were 24 (80%) women, mean (SD) age 33 (12) years. Positive tubular C9 staining was observed in 7/30 (23%) biopsies. At time of renal biopsy, C9+ patients had significantly higher urine protein, compared to C9- patients: median (IQR) 6.2g (3.3-13.1) vs. 2.4g (1.3-4.6), $p < 0.01$. The differences persisted at 6 months after induction therapy: 1.08g (1.0-8.3) in C9+ vs. 0.68g (0.2-2.1) in C9- patients, $p = 0.06$. There was no significant difference in creatinine at renal biopsy between the two groups. Tubular C9 deposition was associated with interstitial fibrosis: 49% had severe interstitial fibrosis vs. none in the C9- group, $p < 0.01$. Higher proportion of C9+ patients had moderate NIH Chronicity index: 42.9% vs 8.7% in the C9- group, $p = 0.07$. DISCUSSION/SIGNIFICANCE OF IMPACT: Tubular C9 deposition is significantly associated with proteinuria, interstitial fibrosis and increased chronicity which predict progression to ESRD and high mortality. This finding suggests that complement activation in the tubules may be linked to proteinuria and contribute to mechanism in tubulointerstitial damage in LN.

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Risk Aversion in Lung Transplantation: Organ Procurement Organizations Differ in Willingness to Pursue Non-ideal Donor Organs

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OBJECTIVES/GOALS: Lung transplant (LTx) candidates benefit from use of non-ideal donor organs. Each organ procurement organization (OPO) defines "acceptable" donor organs introducing unmeasured variation in donor pursuit. We characterized non-ideal donor pursuit among OPOs to identify drivers of risk aversion in LTx. METHODS/STUDY POPULATION: We queried the UNOS registry for adult donors who donated ≥ 1 organ for transplantation from 12/2007-12/2018. Non-ideal donors were those with any of age > 50 , smoking history ≥ 20 pack-years, PaO₂/FiO₂ (P/F) ratio < 350 , donation after cardiac death (DCD) status, or CDC increased risk (IRD) status. Non-ideal donor pursuit rate was defined as the proportion of non-ideal donors at each OPO from whom consent for lung donation was requested with lower numbers indicating increased risk aversion. We estimated the correlation between non-ideal and overall donor pursuit using a Spearman correlation coefficient. Adjusted non-ideal donor pursuit rates were estimated using multivariable logistic regression. RESULTS/ANTICIPATED RESULTS: Overall, 18,333 deceased donors were included and classified as ideal or non-ideal. Among 58 OPOs, rates of non-ideal donor pursuit ranged from 0.24-1.00 (Figure). Of 5 non-ideal characteristics, DCD and IRD status were associated with the most and least risk aversion, respectively. Non-ideal donor pursuit was strongly correlated with overall donor pursuit ($r = 0.99$). On adjusted analysis, older age (OR 0.15, 95% CI 0.13-0.16), smoking history (OR 0.38, 95% CI 0.34-0.44), low P/F ratio (OR 0.12, 95% CI 0.11-0.14), and DCD status (OR 0.04, 95% CI 0.03-0.04) were all independently associated with significant risk aversion, corresponding to decreased rates of donor pursuit. DISCUSSION/SIGNIFICANCE OF IMPACT: OPOs differ in their levels of risk aversion in LTx and risk aversion is not uniform across selected categories of non-ideal lung donor. Consideration of new OPO performance metrics that encourage the pursuit of non-ideal lung donors is warranted.

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Sex Differences in the Cortical Structure in Children with Irritability and Disruptive Behavior†

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OBJECTIVES/GOALS: This study examines sex differences in brain structure in youths with disruptive behavior disorders (DBD). We use measures of gray matter volume (GMV) in regions-of-interest implicated in the pathophysiology of conduct problems and a whole-brain analysis of cortical thickness. We also examine unique associations between brain structure and callous-unemotional traits. METHODS/STUDY POPULATION: This study included 90 children with a DBD (30 females) aged 8-16 and 50 Healthy Controls