397

PALLIATIVE CARE UTILIZATION AMONG ADVANCED CKD PATIENTS TREATED WITH CONSERVATIVE MANAGEMENT VS. DIALYSIS:

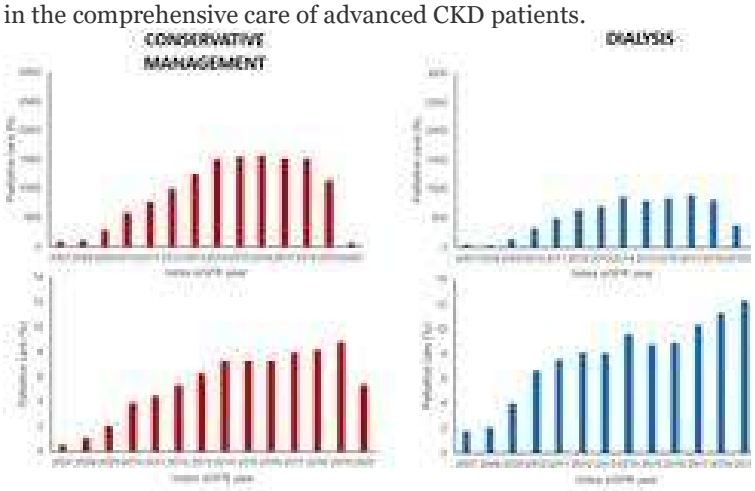
Yoko Narasaki[1,2], Amy You[1,2], Dana P. Mukamel[1], Andrea Daza[1], Silvina Torres[1], Yuhei Otobe[1], Susan Crowley[3], Csaba Kovesdy[4], Danh Nguyen[1,2], Kam Kalantar-Zadeh[1,2], Connie Rhee[1,2]. [1]University of California – Irvine; [2]OptumLabs Visiting Fellow; [3]Yale; [4]University of Tennessee Health Science Center

Given the high burden of physical and psychologic symptoms in an aging and ailing chronic kidney disease (CKD) population, there is growing need for palliative care in routine nephrology care. However, little is known about the utilization of palliative care services in advanced CKD patients across the US. We thus sought to explore differences in palliative care utilization among advanced CKD patients treated with conservative management vs. dialysis in a national cohort.

We compared the utilization of palliative care in advanced CKD patients (≥2 eGFRs <25 separated by ≥90 days) over 1/1/07-6/30/20 from the OptumLabs® Data Warehouse (OLDW), which contains de-identified administrative claims, including medical and pharmacy claims and enrollment records for commercial and Medicare Advantage enrollees as well as electronic health record data. We compared the proportion and absolute counts of patients who received palliative care services (ascertained by diagnostic codes) over time among those treated with conservative management (CM) vs. dialysis within 2-years of their index eGFR (1st eGFR <25).

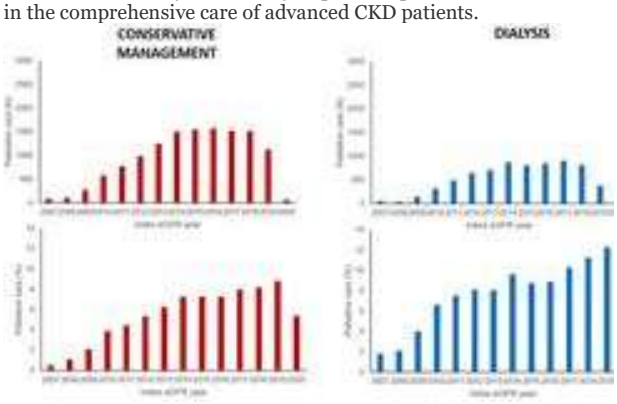
Among 309,188 advanced CKD patients who met eligibility criteria, 6% (N=19,881) of patients received palliative care services over the study period. While patients who transitioned to dialysis were more likely to utilize palliative care services vs. those treated with CM in the overall study period (8.4% vs. 5.7%, respectively), the proportion of patients who received palliative care steadily increased in both the dialysis preparation and CM groups over time (i.e., increasing prevalence of palliative care over index eGFR years 2007-2019) (Figure, lower panel).

In a national cohort of advanced CKD patients, while overall utilization of palliative care services was low, there was a steady increase in the receipt of palliative care over time among those treated with dialysis vs. CM. Further studies are needed to determine how to systematically implement palliative care services in the comprehensive care of advanced CKD patients.



over the study period. While patients who transitioned to dialysis were more likely to utilize palliative care services vs. those treated with CM in the overall study period (8.4% vs. 5.7%, respectively), the proportion of patients who received palliative care steadily increased in both the dialysis preparation and CM groups over time (i.e., increasing prevalence of palliative care over index eGFR years 2007-2019) (Figure, lower panel).

In a national cohort of advanced CKD patients, while overall utilization of palliative care services was low, there was a steady increase in the receipt of palliative care over time among those treated with dialysis vs. CM. Further studies are needed to determine how to systematically implement palliative care services in the comprehensive care of advanced CKD patients.



398

COMPARATIVE EFFECTIVENESS OF SGLT2 INHIBITORS, DPP-4 INHIBITORS, AND GLP-1 AGONISTS ON INCIDENT ALBUMINURIA AND GLOMERULAR FILTRATION RATE DECLINE IN US VETERANS:

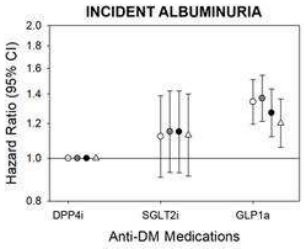
Connie Rhee[1,2], Yoko Narasaki[1,2], Amy You[1,2], Praveen Potukuchi[3,4], Ankur Dashputre[3,4], Keiichi Sumida[3,4], Fridtjof Thomas[3,4], Elani Streja[1,2], Kam Kalantar-Zadeh[1,2], Csaba Kovesdy[3,4]. [1]VA Long Beach; [2]University of California – Irvine; [3]VA Memphis; [4]University of Tennessee Health Science Center

Recent clinical trials have shown that SGLT2 inhibitors (SGLT2i) vs. placebo substantially reduce the risk of eGFR decline, ESRD, and mortality in CKD patients. However, little is known about the comparative effectiveness of SGLT2i vs. other newer anti-glycemic medications (DPP-4 inhibitors [DPP4i], GLP1 agonists [GLP1a]) on risk of incident albuminuria and GFR decline using real-world data in patients without underlying CKD.

Among 32,250 US Veterans with diabetes and without CKD receiving care from the VA healthcare system over 2004-18, we identified incident users of SGLT2i vs. DPP4i vs. GLP1a therapy, excluding combined users of the examined classes. We first examined associations of SGLT2i vs. DPP4i vs. GLP1a use with the risk of incident albuminuria (defined as ≥2 urine-to-albumin-creatinine [UACR] levels ≥30 separated by >90 days) using multivariable Cox models. We then compared the risk of developing GFR decline (defined as ≥2 eGFR <45ml/min/1.73m^2 levels separated by >90 days) with use of these anti-glycemic medications.

Compared to DPP4i, use of GLP1a was associated with higher risk of incident albuminuria, whereas use of SGLT2i was not associated with higher risk in Cox models adjusted for expanded case-mix+laboratory+other anti-glycemic medication covariates. We similarly observed that GLP1a use was associated with higher risk of eGFR decline, whereas SGLT2i use was not associated with higher risk.

In a national cohort of US Veterans with diabetes and without underlying CKD, GLP1a use was associated with higher risk of incident albuminuria and eGFR decline, whereas use of SGLT2i had comparable risk to DPP4i use.



399

KIDNEY ALLOGRAFT REJECTION MONITORING AND INTERVENTION USING PATIENT-CENTRIC STATE OF THE ART TOOLS – A STEP TOWARDS PRECISION MEDICINE:

Asim Rizvi[1], Parin Thakkar[1], Syed Hussain[1], Thang Nguyen[1], Olusola Sogbein[1], Michael Kueht[1], Ann Gamilla-Crudo[1], Muhammad Mujtaba[1]. [1]University of Texas Medical Branch

The monitoring of kidney allograft rejection and subsequent intervention using traditional markers has been inadequate due to lagging response of creatinine and histologic variations on kidney biopsy. Donor-derived cell-free DNA (dd-cfDNA) is a noninvasive diagnostic tool that may quantitatively assess allograft rejection. Molecular Microscope (MMDx) tissue gene expression may offer increased precision to traditional histology.

In this single-center retrospective study of prospectively collected data, we included patients who underwent clinically-indicated biopsy and had simultaneous dd-cfDNA and donor-specific antibodies (DSAs) measurements, MMDx testing, and traditional markers assessment. These diagnostic markers were assessed pre- and post-intervention at 1-, 2-, and 3-6-months interval. Patients were categorized into rejection (Rej) group if they had evidence of rejection on traditional histology or MMDx (either antibody-mediated, T-cell mediated, or mixed) and non-rejection (NRej) group.

A total of 101 patients (53±13 years) were included. The Rej group included 61 patients (51±13 years) and NRej group included 40 patients (56±12 years). The DSAs were positive in 49% patients in the Rej group and 20% patients in the NRej group. Among the Rej group, median (IQR) dd-cfDNA was found to be 2.1% (0.67%, 3.75%) pre-intervention and 1.0% (0.31%, 1.95%), 0.82% (0.22%, 2.10%), and 1.10% (0.31%, 2.60%) post-intervention at 1-, 2-, and 3-6-months interval. Among the NRej group, median (IQR) dd-cfDNA was 0.42% (0.23%, 0.72%) pre-intervention and 0.22% (0.12%, 0.41%), 0.14% (0.12%, 0.21%), and 0.13% (0.12%, 0.20%) post-intervention at 1-, 2-, and 3-6-months interval. Among Rej group, the traditional histology was negative for rejection in 9 patients (15%) and MMDx was negative in 8 patients (13%).

The utilization and monitoring of state-of-the-art tools including dd-cfDNA and molecular diagnostics using tissue gene expression can add precision to traditional histology for early assessment and subsequent intervention for allograft rejection and injury.

400

REAL-WORLD SAFETY OF SGLT2 INHIBITORS, DPP-4 INHIBITORS, AND GLP-1 AGONISTS IN US VETERANS WITH AND WITHOUT CHRONIC KIDNEY DISEASE:

Yoko Narasaki[1,2], Csaba Kovesdy[3,4], Amy You[1,2], Praveen Potukuchi[3,4], Ankur Dashputre[3,4], Keichii Sumida[3,4], Fridtjof Thomas[3,4], Elani Streja[1,2], Kam Kalantar-Zadeh[1,2], Connie Rhee[1,2]. [1]VA Long Beach; [2]University of California – Irvine; [3]VA Memphis; [4]University of Tennessee Health Science Center

While clinical trials have shown that SGLT2 inhibitors (SGLT2i) vs. placebo substantially reduce the risk of eGFR decline, ESRD, and mortality in CKD patients, there remain concerns regarding risk of potential complications based on data from the non-CKD population. We sought to examine the real-world safety of SGLT2i vs. other newer anti-glycemic medications (DPP-4 inhibitors [DPP4i], GLP1 agonists [GLP1a]) in patients with and without underlying CKD.

Among 92,269 US Veterans with diabetes receiving care from the VA healthcare system over 2004-18, we identified incident users of SGLT2i vs. DPP4i vs. GLP1a therapy, excluding combined users of the examined classes. In analyses stratified by presence vs. absence of underlying CKD defined by eGFR and albuminuria, we