one case. All patients improved their renal function. The median estimated creatinine clearance was 25 ml/min after 6 months. Two patients had normalized their renal fonction.

Conclusions: Granulomatous interstitial nephritis may be the first manifestation of a systemic disease . Histologic features do not seem to distinguish the underlying cause of GIN. Corticosteroids therapy seems to be efficient and must be introduced early to prevent progression to chronic renal failure and it is associated with a good prognosis.

No conflict of interest

POS-476

OPTIMIZATION OF SDS-BASED KIDNEY DECELLULARIZATION RESULTS IN ECM SCAFFOLDS APPLICABLE FOR 3D RECELLULARIZATION

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Introduction: Kidney decellularization is used to obtain extracellular matrix (ECM) scaffolds as a platform for 3D culturing and kidney tissue regeneration. ECM contains biological molecules such as growth factors necessary for cell survival, proliferation, and maturation during organogenesis. While decellularization allows for the complete removal of cells, it also causes the removal of specific growth factors from the ECM, which could have deleterious effects on cell survival, proliferation, and differentiation during recellularization. We hypothesize that using a mild decellularization protocol which employs the use of sodium dodecyl sulphate (SDS) below its critical micelle concentration (CMC) of 0.2% in water at room temperature will allow for the greater retention of bioactive molecules which will improve recellularization efficiencies.

Methods: Porcine kidney cortex was cut into 1mm x 6mm slices and decellularized using 0.05%, 0.075%, or 0.1% SDS in a soak and agitation protocol for 24 hours at room temperature. Decellularization was determined through histological and immunofluorescent staining, and DNA quantification. The retention of ECM proteins and biomolecules was determined by histological and immunofluorescent staining, mass spectrometry, and protein array analysis. Four different cell lines were used for recellularization; human-induced pluripotent stem cells (hiPSC), mesoderm derived from hiPSC, intermediate mesoderm derived from hiPSC, and primary human renal epithelial cells. ECM scaffolds were dried on Transwell inserts and cells were pipetted on the surface of the scaffold. ECM-cell constructs were grown for two weeks in culture at air-liquid interface. Recellularization efficiency, cell organization, and differentiation were determined using whole mount staining.

Results: Complete decellularization was achieved when SDS was used in concentrations below its CMC. Decellularizing with 0.05% SDS resulted in the greatest retention of glycosaminoglycan chains (GAGs), revealing that GAGs are still significantly removed from the ECM when using SDS below its CMC. Upon protein quantification, scaffolds decellularized with higher SDS concentrations were more enriched with matrisome proteins compared to scaffolds decellularized with lower SDS concentrations, which correlated to a decrease in growth factors and cytokines present on the scaffolds as determined by protein array. Following 14-day recellularization, hiPSCs and kidney progenitor cells proliferated on the ECM and expressed markers such as LIM1, WT1, PBX1 and CD31. Primary renal epithelial cells maintained a mature phenotype, expressing LTL, cytokeratin, and KSP.

Conclusions: Herein, we describe a novel protocol for the decellularization of kidney cortex scaffolds that allows for greater retention of biomolecules. This retention of growth factors and cytokines aids in the proliferation and directed differentiation of hiPS and kidney progenitor cells toward mature renal lineages. Thus, we determined that our ECM scaffolds are able to support the growth of both hiPS and organ-matched cells. This can be applied to other organ decellularization/recellularization protocols, as well as for the generation of kidney tissue for further in vitro studies.

No conflict of interest

POS-477

CLINICAL PRESENTATIONS AND OUTCOMES OF RENAL DISEASE IN SARS-COV PATIENTS -A SINGLE CENTRE STUDY

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Introduction: To study the clinical presentation and renal outcomes in SARS-COV infected patients with renal dysfunction.

Methods: In this single center observational study, SARS-COV infected inpatients referred to Nephrology Dept. over a period of 4 months were classified in to 2 groups. 1) De novo AKI and 2) Chronic kidney disease-includes CKD stage 1-4, CKD stage 5D (Maintenance Hemodialysis-MHD) and CKD 5T (Post kidney transplant- KTx).

Results: In this observational study total 184 patients were included. Mean age was 66.1 + 8.2 years, 68 % males. 51% patients were diabetic, 79% hypertensive, 37.5% underlying heart disease (IHD + LVD) and 18.5% were having chronic lung disease. 52% MHD group patient had no respiratory complaints. Loose motion was most common in KTx group (32%) and altered sensorium was most common in MHD group (22%).

Table-1: Presentation

Symptoms	De novo AKI (N= 99)	CKD (N= 85)		
CKD stage 1-4 (N= 40)	CKD stage 5D (MHD) (N= 23)	CKD stage 5T (KTx) (N= 22)		
Fever	93 (94%)	36 (90%)	18 (78%)	21 (95%)
Dyspnea	83 (84%)	25 (62.5%)	16 (69.5%)	9 (41%)
Cough	75 (76%)	24 (60%)	12 (52%)	13 (59%)
Altered sensorium	10 (10%)	7 (17.5%)	5 (22%)	0
Loose motion	22 (22%)	8 (20%)	4 (17%)	7 (32%)

Table-2A: Outcomes

Outcomes	De novo AKI (N= 99)
Complete GFR recovery	45 (45.5%)
Partial GFR recovery	12 (12.1%)
Need for RRT	16 (16%)
Total mortality	42 (42.5%)
Mortality in HD patient	16/16 (100%)
Mortality without HD	26/83 (31%)

Table 2B: Outcomes

Outcomes	CKD (N=85)		
CKD stage 1-4 (N=40)	CKD stage 5D (MHD) (N=23)	CKD stage 5T (KTx) (N=22)	
Stable renal function	21 (52.5%)	-	8 (36%)
AKI	19 (47.5%)	-	14 (63.5%)
Needed RRT	10 (25%)	23 (100%)	2 (9%)
Complete GFR Recovery	7/19 (37 %)	-	12 (86%)
Partial GFR recovery	3/19 (15.7%)	-	0
Conversion to ESRD	1/19 (5.2%)	-	0
Total Mortality	8 (20%)	8 (35%)	2 (9%)
Mortality with HD	8/10 (80%)	8 (35%)	2/2 (100%)
Mortality without HD	0	-	0

Mechanical Ventilator required in 9% KTx, 35 % MHD, 42 % CKD and 55 % De novo AKI.

Conclusions: In this cohort of renal patients in the first 4 months of the COVID pandemic, it was observed that:

1. Typical respiratory complaints were less common among patients on MHD ($p < 0.05$).

2. De novo AKI patients had higher mortality as compared to CKD patients ($p < 0.005$).

3. Patients who required de novo initiation of RRT had a worse outcome. Mortality in patients who were initiated on RRT was 93 % as compared to 19.5 % in MHD patients ($p < 0.0001$).

4. Post kidney transplant patients had a better outcome in terms of mortality and complete GFR recovery as compared to other CKD Groups ($p < 0.05$).

No conflict of interest

POS-478

TRENDS IN THE SPECTRUM OF BIOPSY-PROVEN GLOMERULOPATHIES IN ADULTS FROM SOUTH-EASTERN ROMANIA OVER A TEN YEARS PERIOD

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Introduction: Since little is known about the epidemiology of glomerulopathies (GP) in Romania and there are evidence on the changing prevalence of GP over the years worldwide, the current study aimed to assess the trends in the frequency of biopsy-proven GP in adults admitted to a tertiary, university-affiliated center of Nephrology that provides specialized care to the southeastern region of Romania, over a period of ten years.
Methods: A retrospective, cross-sectional study was conducted. From the hospital's kidney biopsy (KB) database subjects with a histological diagnosis of GP between 01.01.2008-31.12.2017 were selected. Exclusion criteria were: age <18 years, biopsy on kidney graft, any repeated biopsy in any patient, and insufficient tissue sample. All selected biopsies were analyzed by light microscopy, immunofluorescence, and electron microscopy. Clinical and laboratory data were extracted from the electronic medical records for all the selected subjects. Demographic, clinical, laboratory, and histological data were compared between subjects who underwent KB in the first and last five years (2008-2012 vs. 2013-2017) of the studied period.
Results: A total of 1254 subjects were enrolled, 355 from the first period and 899 from the second. In the last five years subjects were older, with lower eGFR and proteinuria. In both intervals, the main reason for KB was nephrotic syndrome, but its frequence decreased after 2013 (36.7% vs. 53.8%, p<0.001). In addition, chronic renal failure and acute nephritic syndrome were more commonly seen between 2013-2017 (16.1% vs. 5.9%, $p<0.001$ and 11.5% vs. 6.2%, p=0.005, respectively). The two most frequent biopsy-proven GP (IgA nephropathy followed by membranous nephropathy) had similar proportions in both studied periods. Conversely, diabetic nephropathy and crescentic glomerulonephritis showed increased frequences over time (12.3% vs. 4.8%, p<0.001 and 6.6% vs. 3.1%, p=0.02, respectively), while minimal change disease was more rarely diagnosed (8.8% vs. 14.4%, p<0.001).
Conclusions: These findings suggest rather a change in the medical practice concerning native kidney biopsy, than a true change in the prevalence of biopsy-proven GP in adults from the southeastern region of Romania. It seems that over time the indications for performing kidney biopsy have been extended to older patients, with diabetes mellitus, with more severe kidney function decline, and less proteinuria.

No conflict of interest

POS-479

ACCEPTABILITY AND FEASIBILITY OF A WEB-BASED SELF-MANAGEMENT SUPPORT INTERVENTION FOR ADULTS WITH CHRONIC KIDNEY DISEASE: A MIXED-METHODS STUDY

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Introduction: Our previous work identified the need for a person-centered, theory-informed web-based tool for CKD self-management targeting individuals not receiving kidney replacement therapy (KRT) that can be tailored to a patient's unique situation, priorities, and preferences. To meet this need we have developed My Kidneys My Health; a website to inform, activate, and promote communication with the intent to empower patients and their caregivers. In this study we explore acceptability of the website and feasibility of its implementation.
Methods: A mixed-methods study design using a consecutive sampling strategy including adults from across Canada with CKD, not receiving KRT. Baseline demographic and eHealth literacy data were collected prior to having access for 8-weeks to My Kidneys My Health. Acceptability was evaluated using the Technology Acceptance Model (TAM) to determine ease of use, perceived usefulness, and intention to use. Participants were invited to participate in a 30-minute telephone interview to elicit their perspectives on adopting the website into their self-management strategy, in addition to facilitators and barriers to successful implementation of the website. Analysis was conducted using data triangulation (i.e., quantitative and qualitative data analyzed separately then merged) for interpretation.
Results: Recruitment has been completed (32 participants) with follow-up data collection to be finalized by January 2021. Baseline demographic data are available for 26 participants; majority being male (58%), urban dwellers (62%), Caucasian (81%), with a higher level of education (73%). Participants represent all levels of CKD severity (not receiving KRT) and varied duration since diagnosis. Based on preliminary findings from 12 participants who have completed the study, participants found the website to be understandable, with the majority of these participants indicating (i.e., agree/totally agree) the website was useful for content (83%), supplemented their care (66%), and supported them in dealing with consequences of living with CKD (66%). Participants who have been managing their CKD for many years reported that the general content on the website is relevant for individuals recently diagnosed, however they would revisit the website when they had changes in their health status (e.g., diet, medications, symptoms) as they see living with CKD as a "dynamic process".
Conclusions: Study findings suggest that My Kidneys My Health shows promise as a self-management support tool for those with CKD not receiving KRT. Future work will focus on dissemination, implementation, and potential adaptations.

No conflict of interest

POS-480

THE PROGNOSTIC VALUE OF C4D STAINING IN KIDNEY BIOPSIES OF IMMUNE-COMPLEX-MEDIATED GLOMERULAR DISEASES

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Introduction: C4d staining in native kidney biopsies could indicate antibody related renal damage. We investigated the prognostic role of C4d staining and C4d load in glomerular diseases taking into account their immune-complex (IC) mediated nature.
Methods: We retrospectively evaluated the renal biopsies of 498 patients with focal segmental glomerulosclerosis, membranous nephropathy, IgA nephropathy, minimal change disease, membranoproliferative glomerulonephritis, lupus nephritis, hemolytic uremic syndrome, C1q nephropathy and vasculitis. Patients were separated as 'IC-mediated' (n=300) and 'non-IC-mediated' (n=198) groups. C4d expressions examined in glomeruli (mesangial and/or capillary wall, vascular pole, sclerotic areas), tubular region and vascular areas. Additionally, a novel glomerular C4d score (G-C4d-S) was achieved on the basis of the localization, pattern, extent and intensity of the C4d expression.
Results: Of the patients (241 females, mean age 43 years) with a median follow-up time of 23 months, mean proteinuria, eGFR, and albumin level were 3780 mg/day, 74 ml/min/1.73m^2, 3.07 g/dL, respectively. Median G-C4d-S was higher in IC-mediated group (median, min-max; 8, 0-13 vs. 6, 0-13). Higher load of C4d is associated with higher proteinuria in all glomerular diseases at the time of diagnosis. There were no difference in remission rates, recurrences and renal outcomes between the two groups, however mortality was higher in non-IC-complex group (3.7% vs 6%, p=0.02). In IC-mediated group, capillary wall