

## 9 INFECTION PATTERN IN HIV INFECTED HEMODIALYSIS PATIENTS

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HIV-Infected patients are more susceptible to viral and opportunistic infection. We conducted a retrospective study to see pattern of infection in HIV positive hemodialysis patients.

Inpatient charts of 44 HIV positive hemodialysis patients were reviewed for evidence of infection over a period of 3 years. Appropriate cultures were performed with the signs and symptoms of infections such as: fever, chills, drainage of pus, cough, or signs of sepsis including hypotension.

Thirty out of 44 HIV positive HD patients met the criteria of suspected infection. These 30 patients had 98 cultures from blood, urine, wound, sputum, and CSF during the duration of study. Cultures were positive in following order: 26 out of 62 blood cultures, 2 out of 10 urine cultures, 5 out of 8 wound culture, 5 out of 16 sputum cultures, and 2 out of 2 CSF cultures. Out of all positive cultures, 65% were blood borne, the majority or 19 (73%) patients had gram positive organisms, 6 (23%) had gram negative bacteremia and 1 (4%) had Candida septicemia. Only 4 (13%) pts had opportunistic infections, i.e. 1 had Candida esophagitis, 1 had toxoplasmosis in brain, and 2 had cryptococcal meningitis.

We found out that most common infection in HIV positive dialysis patients is due to gram positive organisms.

## 10 PREDICTORS OF CONSISTENT IN-TARGET HEMOGLOBIN OVER THE TRANSITION TO DIALYSIS

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As chronic kidney disease patients transition into dialysis, anemia control can be difficult. Factors associated with maintaining consistent hemoglobin (Hb) levels over the transition period are unknown.

We identified 7069 dialysis patients, aged 67 years or older, incident from January 1, 1998, to September 30, 2003. Target Hb levels were defined for each of 3 periods: (1) 10 to 12 g/dL for the 3 months before initiating dialysis and (2) the month of initiation, and (3) 11 to 12.5 g/dL in month 3 after initiation. Patients were classified as above (A), in (T), or below (B) target Hb for each period. We used logistic regression to identify predictors of consistent in-target Hb over all periods (TTT).

TTT (22%) was the most common group; 57% of patients were in-target at least 2 periods; 6.8% were BBB. Probability of consistent in-target Hb was increased for patients with 8-12 months on ESAs (OR= 1.20), while African Americans were 25% less likely to remain in-target (OR= 0.75).

Predictor of Consistent In-Target Hb	OR (95%CI)	P-value
Cystic kidney disease as 1 <sup>st</sup> diagnosis	1.62 (1.13,2.34)	0.0094
Albumin > 3.4 g/dL at initiation	1.21 (1.08,1.37)	0.0015
8 to 12 months on ESA (vs. 1 to 7)	1.20 (1.03,1.40)	0.0059
< 1 month on ESA (vs. 1 to 7)	0.89 (0.74,1.07)	0.0132
Avg. weekly ESA > 10,000 units*	0.83 (0.72,0.95)	0.0087
ESRD initiation year < 2000	0.82 (0.72,0.93)	0.0014
Comorbid GI disease*	0.82 (0.67,1.00)	0.0464
Comorbid COPD*	0.81 (0.69,0.96)	0.0160
African American (vs. other race)	0.75 (0.64,0.88)	0.0003
eGFR < 5 mL/min/1.86 m <sup>2</sup> at initiation	0.68 (0.55,0.85)	0.0005

\* 3 months prior to initiation of dialysis

One in 5 patients remained in-target throughout transition, and 57% remained in-target 2 periods or more. Those with less disease burden were better able to maintain consistent in-target Hb levels.

## 11 A CASE OF BIOPSY PROVEN SPONTANEOUS CHOLESTEROL EMBOLISM

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The kidney is a frequent target for cholesterol crystal embolization (CCE). Most cases of diagnosed cholesterol emboli syndrome follow intravascular procedures where blood vessel manipulation or trauma disrupts the fibrous cap of an atherosclerotic plaque showers cholesterol crystals down stream. CCE also can occur without preceding vascular procedures and has been termed spontaneous CCE. Anti-coagulation is a known risk factor for this condition. Atheroembolic renal disease (AERD) is the syndrome of acute renal failure following CCE. It is often irreversible, with significant morbidity and mortality.

We present the case of a 73 year-old Caucasian male with a past medical history of hypertension and CKD (creatinine 4.0 mg/dL), who presented to the hospital with weakness. The patient had no history of angiographic or vascular procedures or anticoagulation. On physical examination the patient had livedo reticularis in both lower extremities and multiple purple toes. The remainder of the physical exam was unremarkable. Laboratory data showed a creatinine of 7.2 mg/dL, WBC 8200/mm<sup>3</sup> with 12% eosinophils, Hgb 11.2 g/dL, erythrocyte sedimentation rate >140mm/hr and normal complements. Urine analysis showed coarse granular casts. AERD was suspected and a renal biopsy showed intra-arterial luminal clefts and focal dense infiltration of eosinophils confirming the diagnosis of AERD.

Subsequently, the patient became dialysis dependent and remains on dialysis.

Our observation describes a patient with advanced CKD who developed spontaneous AERD. We could identify no risk factors beyond diffuse atherosclerosis. We discuss the diagnosis and review the literature on spontaneous CCE.

## 12 SYNDROME OF TUBULOINTERSTITIAL NEPHRITIS AND UVEITIS: A UNIQUE ENTITY OR EXAMPLE OF EXTRA-PULMONARY SARCOIDOSIS

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Granulomatous interstitial nephritis (GIN) is found in only 0.5% of kidney biopsies. A limited number of diseases can cause GIN. In contrast, oculorenal syndrome has a broad differential. The intersection of oculorenal syndrome and GIN has only three diagnostic possibilities: sarcoidosis, Wegeners granulomatosis and tubulointerstitial nephritis and uveitis syndrome (TiNU). We describe a case of biopsy proven TiNU, review the literature and discuss the possibility of TiNU being a variant of renal-limited sarcoidosis.

A 24 year old, previously healthy, African American woman presented to the hospital with fatigue and eye pain. Her ocular examination showed anterior uveitis. Otherwise the physical examination was unremarkable.

Laboratory tests revealed a creatinine of 3 mg/dl. Urine analysis showed benign sediment with a spot protein:creatinine ratio of 0.6. Erythrocyte sedimentation rate was 65 mm/h, hemoglobin was 6.2 g/dl and serum complements were normal. Hepatitis, HIV and ANCA serologies were all non-reactive. Antistreptolysin titres were modestly elevated at 210 (0-200). ACE level and calcium levels were normal. A chest X-ray and renal ultrasound were unremarkable.

The patient's renal function deteriorated and her creatinine peaked at 6.7 mg/dL on hospital day 5. A renal biopsy was performed and was consistent with GIN. The biopsy and previous diagnosis of anterior uveitis lead to a diagnosis of TiNU. The patient was started on oral and ocular steroids. Renal function improved dramatically and vision slowly improved. She currently has normal renal and normal vision.

Only 118 biopsy proven cases of TiNU have been reported in the literature. Renal-limited sarcoidosis has rarely been reported. We speculate that TiNU and sarcoidosis are similar diseases, presenting with simultaneous renal and ocular manifestations given the similar histology and response to steroids. Better understanding of the pathophysiology of these diseases will help solve this diagnostic dilemma.