



UW PACC

Psychiatry and Addictions Case Conference

UW Medicine | Psychiatry and Behavioral Sciences

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WELCOME!

Today's Topic:

Behavioral Health and Renal patients

My patient with chronic kidney disease has depression. Do I use meds, and if so which ones, or should I refer them to therapy? What about their anemia-is that playing a role?

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PSYCHIATRY AND NEPHROLOGY

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GENERAL DISCLOSURES

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SPEAKER DISCLOSURES

- ✓ Any conflicts of interest?
- ✓ Jennifer M Erickson, DO FAPA – no disclosures
- ✓ Gerald B. Stephanz, Jr. MD FACP—no disclosures

OBJECTIVES

1. Describe 3 ways Renal disorders can mimic psychiatric disorders.
2. List 3 medications that require dose changes in chronic renal disease.

RENAL & PSYCHIATRY

- Major Causes of Renal failure:
 - HTN, DM (over 50% of patients on dialysis), Atherosclerosis, Lupus, AIDS, substance abuse, primary renal diseases
- All of these medical issues have a high comorbidity with Major depressive disorder (& other psychiatric disorders)
- The most common psychiatric disorder in end stage renal disease is depression (followed by anxiety).

GLOMERULAR FILTRATION RATE (EGFR) ESTIMATION

- Estimated GFR (eGFR); uses age, sex and race (underestimates blacks, x1.2)
- Only good < 60 ml/min (other calculations coming)
- Stages are arbitrary!
 - CKD 1 >90; CKD 2 60-89, CKD 3a 45-59, CKD 3b 30-44, CKD 4 15-29, CKD 5 < 15
- 80 year old WF with a “normal” Creatinine of 1.4 (egfr 35)—(doesn’t take into account muscle mass, could be 90 lbs or 200 lbs)

CHRONIC KIDNEY DISEASE

- CKD is not a disease (yes, I know the D stands for disease)
- CKD is always secondary to something
- All somethings aren't equal; different prognosis and trajectories to ESRD

CHRONIC KIDNEY DISEASE

- Abnormal kidney function greater than 3 months in duration
- Abnormal eGFR and/or proteinuria (albuminuria); abn UA
- If we live long enough, we all get CKD (lose 1 cc/min for every year over 40)
- https://www.kidney.org/professionals/KDOQI/gfr_calculator

TREATING CO-MORBID PSYCHIATRIC DISORDERS

- Symptoms of severe kidney disease can look like psychiatric disorders
 - Depression: Uremia, Anemia
 - Anxiety: Electrolyte shifts
 - Psychosis: delirium related to medications (average dialysis patient on 15 different medications)
- Renal disease can effect how psychiatric medications are dosed and work.

UREMIC SYMPTOMS

- Appearance is variable by age and condition; don't really see symptoms for eGFR over 25, and start less than 15; younger tolerate better. "Well" dialyzed patients don't have uremic symptoms*
- Fatigue, malaise, cognitive impairment, poor appetite/declining nutritional status, sleep disturbance, sexual dysfunction, volume overload, pruritus, neuropathy, pericarditis (the only absolute indication for dialysis)

ANEMIA OF CKD

- By government edict, can't treat to bring HCT over 33 (some science exist to support)
- Treating CKD and ESRD to "normal" increases mortality and morbidity (increased ASHD, ASVD-CVA)
- No definitive QOL data to support normalization of HCT
- "Rodney" in Gainesville

PHARMACOTHERAPY

- Renal disease alters:
 - Protein binding
 - Urea may displace medications that are bound
 - Phase I metabolism can be decreased
 - 2D6, 3A4, 2C9
 - However, many medications do not require massive changes to the dosing... with a few key exceptions:

CASE

- CC: depression
- 58 y/o male who presents with depression symptoms (anhedonia, irritability, poor appetite, increased sleep, psychomotor retardation, and feelings of guilt). These symptoms started 2 months ago. He has several episodes in the past that last 1-15 months. Usually around a time of change in his life.
- He has previously responded to duloxetine.
- He has a history of being treated for DM, HTN, and sleep apnea. Last HgA1c 7.5, BP 148/79. He does use his CPAP daily. Cr 1.8/eGFR: 40. His labs have been approximately unchanged for the last year.

QUIZ

- A. Patient meets criteria for no medical or psychiatric issues.
- B. Patient meets criteria for MDD only
- C. Patient meets criteria for CKD only
- D. Patient meets criteria for MDD and CKD
- E. I don't know

CASE

- Patient was started on Cymbalta and his depression improved.
- He presents 2 years later. His labs now show a GFR of less than 30.

QUIZ

- A. Continue the patient on Cymbalta
- B. Decrease the dose of Cymbalta
- C. Stop Cymbalta
- D. Try to switch the patient to a different antidepressant

PATIENTS WITH CKD

- Very few medication changes
- However, caution should be taken with Cymbalta below a GFR of 60 and it should not be used below a GFR of 30.
- Ideally, you would stop the medication or switch it to something else.
- But what?

ANTIDEPRESSANTS

- SSRIs: Sertraline, citalopram*, fluoxetine*
- TCAs: Nortriptyline
- SNRIs (Paxil): Require up to 2/3 reduction in dose.
- (the Nephrologist notes: Internists aren't very good about starting low and going slow)

WHAT ABOUT THE OTHER MEDICATIONS?

- Mood stabilizers the require reduction:
Lithium, Topiramate
 - Drugs you can measure can be good
- Antipsychotics: Paliperidone, Risperidone
- Cognitive impairment medications:
Memantine
- Other: Gabapentin, Pregabaline

LITHIUM

Acute Lithium Toxicity; narrow therapeutic index

Nephrogenic Diabetes Insipidus; 20-40%

– Most common side effect

- Renal Tubular Acidosis
- Hypercalcemia/Hyperparathyroidism
- Hypothyroidism
- Nephrotic Syndrome/Focal Segmental Glomerulosclerosis

LITHIUM

Chronic Interstitial Nephritis; 15-20% (10 years plus exposure)

- Risk of ESRD low, 0.5-1.5% (6-8X higher than general population)
- Often associated with nephrogenic DI
- Length of therapy, age, cumulative amount, acute toxicity events
- Recovery of renal function variable; chronic course

LITHIUM

- Check 24 hour urine volume, renal concentrating ability (Uosm), eGFR, spot microalbumin, and UA at start of therapy
- Serum Li⁺⁺ and Cr every 2-6 months; yearly TSH/electrolytes/Ca⁺⁺/spot microalbumin
- Avoid diuretics and NSAIDs
- When to stop?—GFR 40-60 cc/min*
- Refer to nephrology for rapid decline in GFR, CKD 4/5, and proteinuria

CASE

- 80 year old retired philosophy professor is seen on dialysis rounds. ESRD secondary to DMII, has significant ASHD. Widowed, lives alone, but increasingly frail, but good family support. Adherent to meds and treatment schedule (3X weekly 4 hour dialysis sessions). He smiles on seeing you, raises to shake your hand, and states, out of the blue, this is his last dialysis.
- What do you do?