6/26/20 Morning Report with @CPSolvers

Case Presenter: *Neha Teekappanavar* ***Case Discussants***: *Reza Manesh (@DxRxEdu) and Rabih Geha (@rabimgeha)*

CC: Fatigue and back pain

HPI: 52F transfer for sub specialty care. Fatigue for about 2 months but still able to manage ADLS, Mid back pain worse than normal for 3 week started in the midline and lateral from shoulder to sacral area. No improvement with ibuprofen, no trauma, no red flags, no muscular cramps. Before present to community hospital, she have foamy frothy urine and high saliva output, ankle and facial swelling for 1 week
ROS: No B symptoms, no SOB, no depression

PMH: 10 y ago large kidney stones, 7 y ago hyperparathyroidism with Ca normally 11-12, Hypertension, CKD, degenerative lumbar disk
Meds:
Artosvatin, montelukast, metoprolol

Fam Hx:
Both parents dead. Father had prostate cancer
Soc Hx:
No smoke, ETOH, no drug
Office manager
Health-Related Behaviors:
Refused Paradiectomay
No surgery

Vitals: **T**: 36.9 **HR**: 112 **BP**: 132/82 **RR**: 18 **SpO_2**: 96
Exam:
Gen: BMI 27, Relatively lean, very tired
HEENT: ECOM PERRLA, mild periorbital edema
CV: Tachycardia,, mild edema in both ankles
Pulm, Abd: wnl
Neuro: No focal exam,no abnormalities
Extremities/Skin: Normal range of motion, no weakness, 5/5 strength, no point tenderness, no pain with palpation. overall pain

Notable Labs & Imaging:
Hematology:
WBC: 6.7 Hgb:10.8 (33) Plt: 206
Chemistry:
Na: 129 K: 3.9 Cl: 97 CO2: 19 BUN: 28 Cr: 2.1 glucose:123
Ca:14.9 Phos: 4.2 AST: 28 ALT: 21 Alk-P: T. Bili:0.8 Albumin: 3.3.
SPEP negative x 2. Free light chain ratio in 600s.
UA: 2+ protein 0-5 RB
(Baseline creatinine: 1) Urine creatinine ratio: 0.5
TSH: 6.3 T4: 5.8 PTH: 271 VITD 25.15 Negative
ACE negative, PTHrp: low
Imaging:
EKG: Sinus tachycardia
CXR: Small developing pneumonia
Rapid decline of renal function
Parathyroid US: Parathyroid adenoma and sub-centimeter nodule
Sestamibi scan: Multiple lytic bone lesions suggestive of brown tumors vs. multiple myeloma. Lesions in the clavicle, scapulae, and mandibles.
UPEP: M spike noted on UPEP. **BMBx: Plasma cell dyscrasia**
SFLC ratio: 606

Problem Representation:
52F with history of kidney stones and hyperparathyroidism presenting with subacute fatigue, back pain, facial edema, and renal failure found to have lytic lesions, a parathyroid adenoma, an elevated SFLC, consistent with light chain myeloma and primary hyperparathyroidism

Teaching Points (Lindsey):
Problem representation: epi, duration of symptoms, clinical syndrome
Back pain: anatomical approach (bone, muscle, nerve, vascular supply)
Hypersalivation: 1) sense or quantification 2) issue with storage(neuro, anatomic) or making more saliva (increased parasympathetic input, ex: rabies)
Edema: First -> look up (JVD, tachypnea, jaundice/ascites, facial involvement)
Kidney stones: calcium 90% (oxalate, phosphate), uric acid, struvite, genetic
Hyperparathyroidism + kidney disease: nephrocalcinosis, HTN
Nephrotic syndrome: hypoalbuminemia (including protein C/S), edema, nephrotic range proteinuria
P/C ratio: may overestimate degree of proteinuria if SG is high or AKI
Differentiate Acute vs. Chronic kidney disease: elevated PTH, low vitamin D, imaging
Hyperparathyroidism: Primary (adenoma, lithium -> hyperplasia, carcinoma) vs. secondary/tertiary (kidney)
Intrarenal: glomerulus, tubules, interstitium, vasculature
Bone lesions: primary cancer (chondro, osteo, ewing's), secondary (solid - breast, lung, melanoma, thyroid, RCC; liquid - leukemia, lymphoma, myeloma, mastocytosis, POEMS)
SPEP negative: can miss IgE and IgG and nonsecretory subtypes; SPEP/UPEP/free light chain will diagnose 99%
50% cases of multiple myeloma with renal failure -> renal recovery