05//24 Morning Report with @CPSolvers

"One life, so many dreams" Case Presenter: Kazuya Tsuchiya(@kazgo4it) Case Discussants: Rabih(@rabihmgeha) and Noah(@Noah_Nakajima)

CC: Fever and sore throat

HPI: 19 y/o M with no significant PMH presented with acute onset of fever and sore throat.
3d PTA: Fever 100.4
2d PTA: Sore throat and HA
1d PTA: Shivering. Visited clinic; COVID-19 neg.
Last night: Fever 107.6. More shivering. Called EMS
ROS
Positive: Dysphagia and Right neck tenderness
Negative: Weight loss, night sweats, rashes, cough back pain, abd pain, cough, hematuria, arthralgia, frequent urination

PMH: None

Meds:
Tylenol
Allergies:
None

Soc Hx:
Sick contact; friend from Osaka trip COVID-19 positive (19 days ago)

Vitals: T: 42 C (107.6) **HR:** 120 **BP:** 124/74 **RR:** 30 **SpO2:99% on room air**
Exam:
Gen: Exhausted, oriented for person and place but not for date(E4V4M6)
HEENT: Retropharyngeal erythema, enlarged right tonsil, no exudates, no lymphadenopathy, no muffled voice, erythema, swelling and tenderness in the right neck

Notable Labs & Imaging:
Hematology:
WBC: 5900 Hgb: 15 Plt: 88
Chemistry:
Na:130 K: 3 Cl:93 BUN:10 Cr: 0.9AST: 23 ALT: 13 Alk-P:
Albumin: 2.9 CRP:22.2(<0.4)
Rapid step: Negative
Started antibiotics (Vanco +ceftriaxone)
DDx: acute tonsillitis, peritonsillar abscess, ludwig's angina
Imaging:
CXR: wnl
H&N CT: 1. Small fluid collection, low attenuation and surrounding rim-enhancement= Peritonsillar abscess
2.Distended right internal jugular vein with enhancing wall: Thrombophlebitis
3.Day 2: Dry cough onset X ray: Bilateral nodular densities(new) CT:Pulmonary septic embolism
4.**Blood culture:** Fusobacterium necrophorum

Dx: Lemierre's syndrome

Problem Representation: 19 yo M presented with fever,sore throat,dysphagia, dry cough(Day 2) and swelling in the R neck. Work up revealed peritonsillar abscess with Fusobacterium necrophorum infection along with thrombophlebitis of the IJV and pulmonary septic emboli. Diagnosis was Lemierre's syndrome.

Teaching Points (Parisa):
Fever → IMADE (infection; malignancy; AI; Drugs; Etc)
Acute onset fever → infection (time course is the key)
Accompanying Sx → sore throat localizing
Sore throat are not pharyngitis → blistering lesion HSV; large space occupying lesion; allergies
Pharyngitis → mostly are viral (adenovirus) → 3 viral categories which matters (Covid; Inf; Infectious mononucleosis EBV; CMV; HIV) ; irritation of airway(cough); fatigue
Bacterial causes → group A strep (m.c.c); younger pt; pus; cervical LN
Shivering → shaking chills → probability bacteremia 75%
Red flags → Lack of cough and presence of shivering
Management → CBC; CMP; cooling; imaging (complication), Abx
Temperature abnormality → rectal is more accurate vs surface
Pharmacologic T reduction → IV ketorolac; Tylenol
Fever(Cytokine issue, NSAIDs responsive) vs **hyperthermia** (environmental exposure, sustained muscle contraction; poor NSAIDs response)
Empirically Tx → decompensated cirrhosis; neutropenic fever; sepsis; rigors
Neck mass → LN; thyroid; salivary glands (parotid/submandibular); congenital anomaly(thyroglossal duct cyst (middle) ; branchial cleft cyst(L side); deep space infection (vessels/ internal jugular vein; airway) → CT neck w/ contrast; US→ Abx coverage → Gram positive; vcanco (strep); gram neg(ceftriaxone) ; anaerobes (clindamycin ampicillin sulbactam)
CBC is key pharyngitis → leukopenia HIV; leukocytosis IM; leukocytosis + thrombocytopenia 70% (Lemierre's disease)
LN plus thrombocytopenia → HIV
Fusobacterium necrophorum (anaerobes)→ take longer to grow culture
Initial infection (pharyngitis) → Internal jugular → septic emboli (chest imaging)
Lemierre's disease→ Fusobacterium, but also Strep, Staph, Eikenella, & Bacteroides
Metastatic sites → septic emboli, cavitary lesions, effusions/empyema/ septic arthritis (large s)/ bacteremia, anaerobes grow slowly