02/11/24 Morning Report with @CPSolvers

*"One life, so many dreams" **Case Presenter**:Amr Mousa **Case Discussants**: Kirtan (@KirtanPatolia) and Mark (@Mark_Heslin)*

CC: 25 M with left sided testicular pain.

HPI: Started 4 hours ago, soon after, the pain became BL, radiated to left inguinal fossa and left flank - started when he was sleeping and he did not sustain any trauma.

PMH: Hidradenitis suppurativa

Meds: Not using any medications

Fam Hx: NA

Soc Hx: Works as gardener

Health-Related Behaviors: Non smoker, drinks moderately on the weekends
Uses inhaled cocaine

Allergies:

Vitals: T:36.6ºC HR: 80/min BP: 119/90 mm/Hg RR: 18/min
Exam:
Gen:
HEENT: wnl
CV: wnl ; **Pulm:** wnl
Abd: wnl ; **Neuro:** wnl
Genitourinary exam: Left testis tender and more hard than right testis

Notable Labs & Imaging:
Hematology:
WBC: 18.5 (Neutrophil - 15.5) Hgb: 148 Plt: Normal ; CRP - 0.5 (trended upwards to 180 -> then started declining) ; PBS: Normal
INR - Normal ; Fibrinogen - 2.05; aPTT - 25.8 ; PT - 13.3
Chemistry:
Electrolytes, BUN, Creatinine: wnl; Bili - 10 ; Phosphate - 0.4 (decreased - LLN: 0.8)
UA: Normal ; trace protein
VBG - Lactate - 1.8; pH: 7.51
Autoimmune panel: Negative, ANCA - negative ; HIV, Hep B, Hep C, Syphilis - negative
Echo : Normal
Clinical course: Patient was started on high dose steroids, iloprost infusions, high dose NSAIDs. Invasive angiography is planned. Patient was offered immunosuppressive therapy but he refused.
Imaging:
US testes: No vascularity in both testes ; Repeat 1 week later - vascularity intact ; some heterogeneity noted
PET CT and MR Angio - Negative
Biopsy of testicles: **Ischemic necrotic hemorrhagic stromal cells**

Dx: Vascular testicular spasm 2º to cocaine use (awaiting confirmation with invasive angiography)

Problem Representation: 25M presented with left testicular pain radiating to the left inguinal fossa, and transforming into bilateral testicular pain over the course of 4 hours.

Teaching Points (Ashutosh):
Acute onset testicular pain: Trauma, torsion, orchitis, epididymitis, strangulated hernia, Fournier's gangrene, cancer, vasculitis, varicocele. Torsion is one of no miss causes. Torsion is usually starts unilateral and as it progresses may be bilateral.
The testicular area being small, unilateral pathology may present with complain of bilateral involvement.
Referred pain: Renal stone and other retroperitoneal pathology can cause radiating testicular pain.
Doing a good testicular and inguinal exam is really important.
Volume overload and rare drug reaction can also present in testicular area.
US Doppler can be helpful to assess the vascular function of the area.
If exam reveals hard testis, it is more indicative of tumor although vascular phenomenon like venous thrombosis may result in similar exam. Some rheumatologic conditions a/w HS may also result in similar findings.
Orchitis and epididymitis may show abnormal urinalysis. Torsion usually presents with negative Prehn's sign and absent cremasteric reflex unlike epididymitis.
No vascularity on US: Torsion, Venous or arterial thrombosis (underline coagulopathy)
B/l vascular problem: Emboli, coagulopathy, obstruction at common draining point (IVC). Some coagulopathy leave mark on CBC like: HITS & APLS show dec plt, Myeloproliferative disorders amy show inc WBCs.
Respiratory alkalosis: Phosphate may be trapped d/t inc glycolysis also resulting in high lactate.
Mesenteric ischemia can present with normal lactate while high would hint towards necrosis.
A very high ESR & CRP would make vasculitis more likely compared to other coagulopathy.
Vasculopathy vs vasculitis: FMD, SAM, MISA. Medium vessel Vasculitis like PAN, Behcet, IgA. Patient having h/o HS increases risk of small vessel vasculitis. Drugs like levamisole can also cause vasculitis. There has been reports of levamisole adulterated cocaine associated vasculitis.
TWIST Score for testicular torsion: Is a dynamic process and may change overtime.