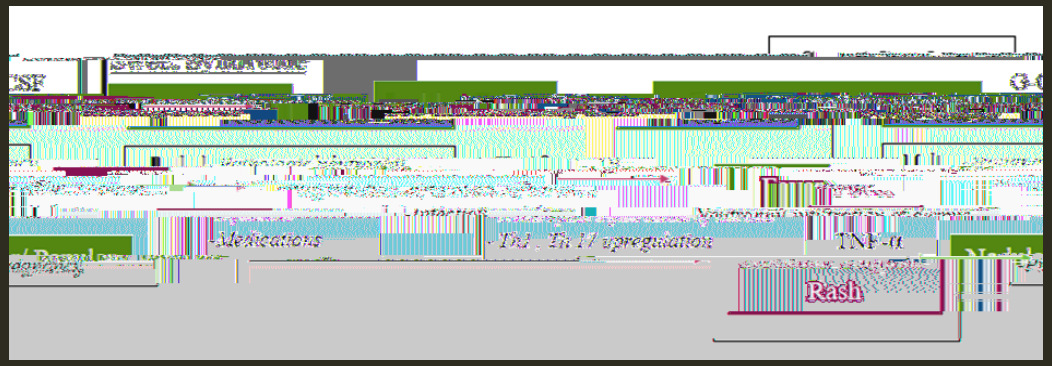
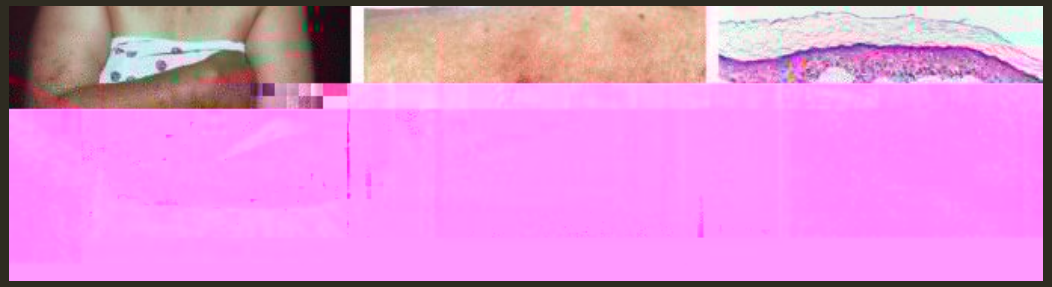
DISSEMINATED SWEET SYNDROME: A RARE MIMICKER OF SEPTIC SHOCK

SWEET SYNDROME

An inflammatory condition characterized by fever, peripheral neutrophilia, and painful skin nodules/papules, thought to be related to maladaptive elevations in G-CSF

- Can be idiopathic or associated with underlying inflammatory states/malignancies & drugs
- Rarely, can have systemic involvement with organ failure
- Treatment with steroids typically leads to rapid improvement in systemic and dermatologic symptoms
- Definitive management of non-idiopathic SS requires treatment of underlying inflammatory condition





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CASE PRESENTATION

Patient: 74 year-old man with coronary artery disease and hypertension, two weeks post admission for cholangitis with biliary tube placement complicated by acute tubular necrosis

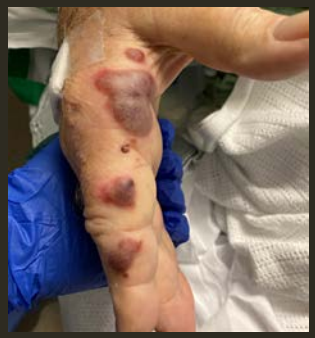
- Admission #1: Presented with fevers, weakness, subacute progressive abdominal distension/pain in the setting of serosanguineous biliary tube output and severe anemia
  - Required MICU admission for respiratory support and diuresis due to TACO
  - Developed scattered joint stiffness with elevated ESR & CRP, hemorrhagic blisters on bilateral hands. Biopsy suggestive of possible SS
  - Discharged home without antibiotics
- Admission #2: One day following discharge, re-presented with presumed septic shock requiring pressors and nonrebreather
  - Started on vancomycin, cefepime and metronidazole as empiric therapy

Skin biopsy with dermal edema & neutrophilic infiltration of the upper dermis
https://www.cmaj.ca/content/cmaj/179/9/967/F2.medium.gif

Early eruption of skin lesions during Hospital Admission 1

HOSPITAL COURSE

- Hypoxic respiratory failure requiring multiple trials of BiPAP
- Transfusion-dependent anemia
- Persistent hemorrhagic bullae on bilateral hands
- Acute kidney injury, delaying additional contrast imaging
  - CT abdomen and pelvis was performed on HD #5 revealing no acute abnormality, thus concluding an unrevealing infectious work-up
- With suspicion for disseminated SS, dermatology recommended discontinuing antibiotics in favor of high dose methylprednisolone
  - Respiratory status improved with corticosteroids, further supporting dSS
- Bone marrow biopsy (evaluating for hematologic cause of anemia and SS) revealed MDS versus developing AML



Hemorrhagic bullae, Hospital Admission # 2

Bilateral pleural and small pericardial effusions on HD #5

CONCLUSIONS

Rare case of Disseminated Sweet Syndrome in a 74 year-old male with underlying hematologic dysplasia, presenting with systemic inflammatory response concerning for septic shock

-Disseminated Sweet Syndrome should be considered in patients with fever, painful erythematous papules/nodules, anemia, effusions and hemodynamic instability meeting SIRS criteria with unclear source of infection

-Early treatment with corticosteroids is critical for rapid clinical improvement

-Many cases of SS are due to an identifiable state of increased inflammation

- Necessary to evaluate for infection, rheumatologic disease, or malignancy
- Definitive management of non-classic SS requires treatment of the underlying condition