



Neutrophilic Dermatoses: Not as Sweet as it Sounds

Sweet Syndrome in a Patient with Multiple Myeloma

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INTRODUCTION

- Acute febrile neutrophilic dermatosis is also known as Sweet syndrome (SS)
- SS is characterized by the abrupt appearance of painful, erythematous papules and fever
- SS is often associated with underlying hematologic malignancies

CASE PRESENTATION

- 75-year-old man
- PMHx: smoldering multiple myeloma (not undergoing surveillance), psoriatic arthritis
- Chief Complaint: failure to thrive
- Presented with encouragement from son with symptoms including neck pain, 10 days of fevers, anorexia and generalized weakness

Vitals: T 38°C, BP 160/90, HR 120-150, RR 16, SpO2 99%

Labs: WBC 4.0, HGB 7.1, Plt 144

CTA chest: 9 mm ground glass lingular opacity

Signed out PE: Stiff neck

Additional PE: 15 edematous and erythematous papules 4-8 mm in diameter with some with central vesiculation on dorsum of hand

HOSPITAL COURSE

Day 0:

- Patient started on broad spectrum antibiotics without improvement in symptoms; LP declined

Day 1:

- Rash noted; Dermatology consulted
- Antibiotics continued without improvement

Day 2:

- Rash biopsied; Prednisone 20 mg started

Day 3:

- Fever resolved; symptoms improved
- Patient discharged

Post-hospital Course:

- Biopsy results came back as interstitial granulomatous dermatitis
- Prednisone stopped; rash returned
- Rash biopsied, this time demonstrating neutrophilic dermatitis (Sweet syndrome)



Figure 1.
A representative image of patient's Sweet syndrome rash.¹



Figure 3.
An image demonstrating a typical Sweet syndrome rash.²



Figure 2.
A recurrence of the patient's rash in a different location after steroids were stopped.

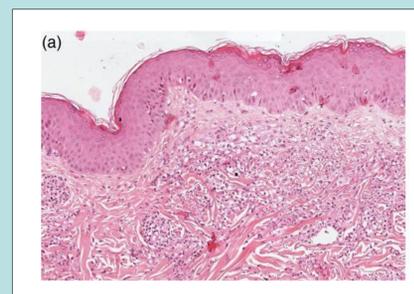
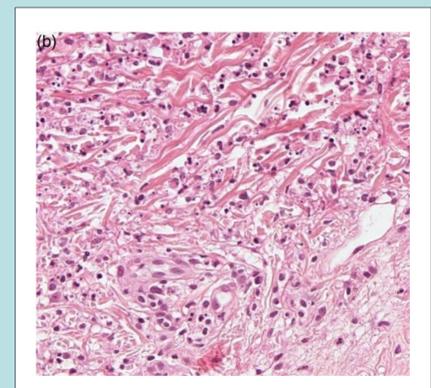


Figure 4a/b.
Pronounced edema in the papillary dermis with diffuse neutrophilic infiltration in the upper and mid dermis with no leukocytoclastic vasculitis.³



DISCUSSION

- This case illustrates the diagnostic pitfalls associated with an uncommon condition; it also highlights the importance of the history and physical exam
- While a febrile illness in an immunocompromised patient is initially concerning for infectious etiologies, providers must also be aware of other inflammatory conditions
- Although Sweet syndrome is not commonly associated with multiple myeloma, this presentation may represent progression of his disease
- While the diagnosis of Sweet syndrome includes histologic evidence on biopsy, there is a false negative rate and the clinical picture should not be overlooked

TAKE HOME POINTS

1. Non-infectious causes of fevers should always be considered
2. Sweet syndrome should be considered in patients with fever and rash on the upper extremities, particularly if they have a history of cancer, IBD, post URI or GI infection, or in patients who are pregnant
3. Sweet syndrome responds rapidly and dramatically to glucocorticoids

REFERENCES

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