Interhospital Conference Case 7

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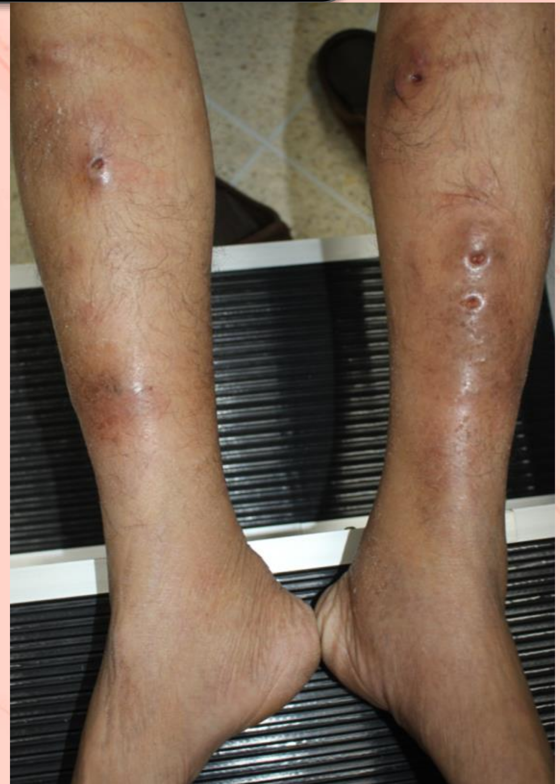
RAMA EST. 1968 DERMATOLOGY

A 34-year-old male

Multiple dermal to subcutaneous nodules with small ulcers on both shins for 2 weeks



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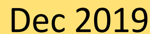
Present illness



2 weeks earlier

- Multiple tender nodules on both shins
- Treated as abscess:
  - I&D
  - Amoxicillin 2 g/day for 4 days

2 days earlier

- Visit hospital as lesion not improved
- Mx:
  - Co-amoxiclav 2 g/day
  - Slight improvement

Present illness

- No fever/abdominal pain/joint pain
- No loss of appetite or significant weight loss

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Past history

- SLE diagnosed in 1997

  - NPSLE, serositis, lymphadenopathy

  - Anti-dsDNA, ANA positive

- CKD stage IV, HT, gout
- History of disseminated nocardiosis (lungs, chest wall, brain) 5 months ago

Current medications

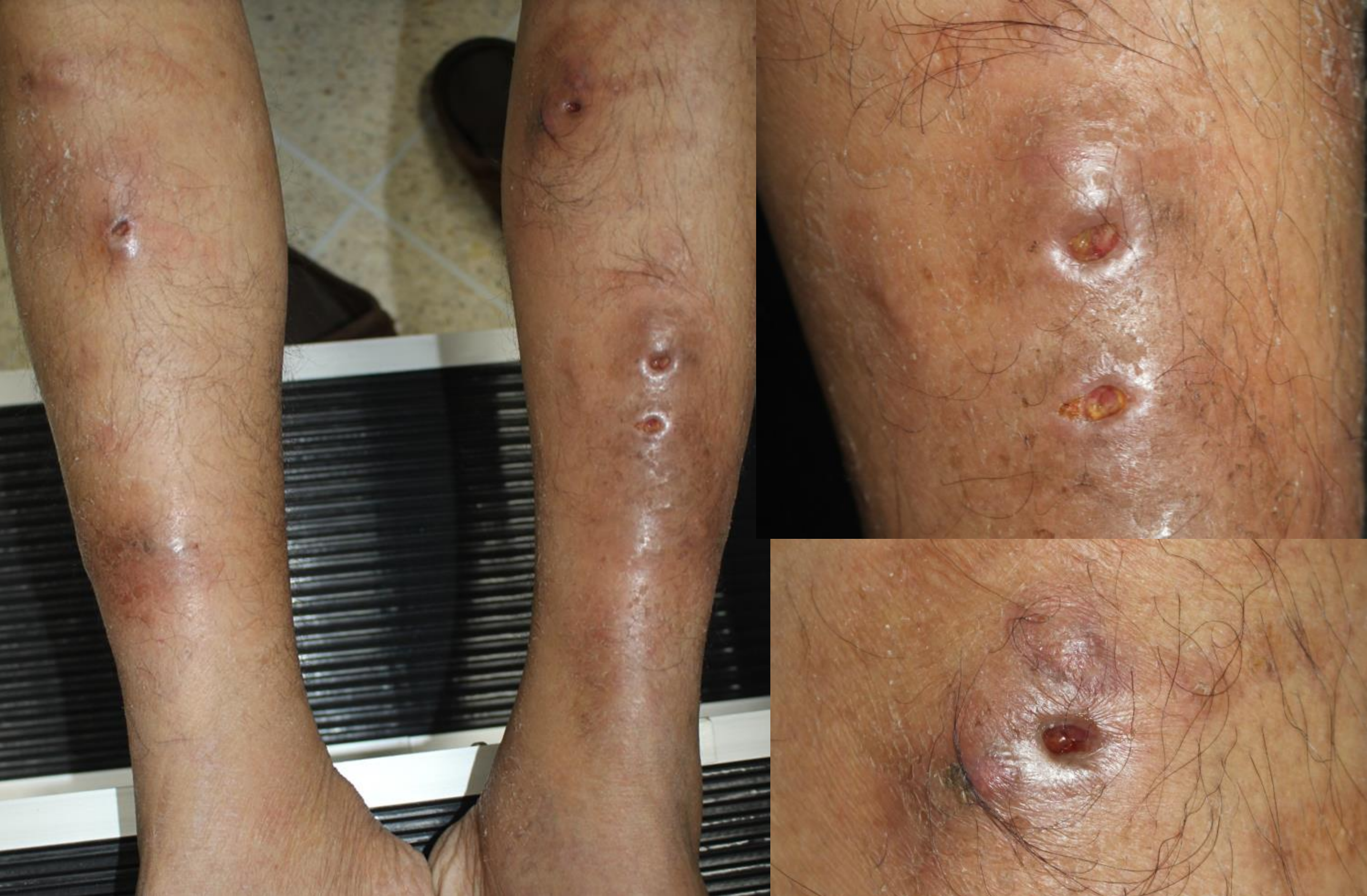
- Prednisolone(5) 2x1 po pc
- Acyclovir(20) 1x1 po pc
- Simvastatin(10) 1X1 po pc
- Manidipine(20) 1x1 po pc
- Enalapril(20) 1x1 po pc
- Folic(5) 1x1 po pc
- Ferrous fumarate(200) 1x1 po pc
- Co-trimoxazole(400/80) 3x1 po pc

Physical examination

- Vital signs: T 37 °C, BP 140/90 mmHg, PR 90 bpm, RR 20/min
- HEENT: no pale conjunctiva, anicteric sclera
- Lymph nodes: impalpable
- Lungs
- CVS
- Abdomen

} WNL

Dermatological examination



Multiple tender dermal to subcutaneous erythematous nodules with small ulcers on both shins

Problem list

1. Multiple ulcerated erythematous nodules on both shins
2. U/D SLE, CKD stage IV, HTN, gout
3. Recent history of disseminated nocardiosis

Differential diagnosis

Infection

- Infection induced panniculitis:
  - NTM, nocardia, fungus

Inflammation

- Erythema induratum
- Polyarteritis nodosa
- Pancreatic panniculitis

Malignancy

- Subcutaneous panniculitis-like T-cell lymphoma
- Leukemia/ lymphoma cutis

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Infection

Inflammation

Malignancy

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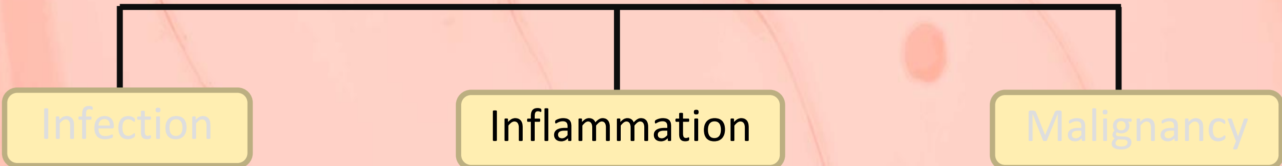
Differential diagnosis



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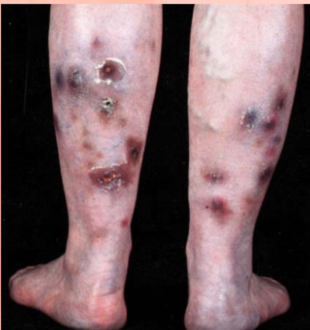
Differential diagnosis

Infection

Inflammation

Malignancy

Erythema induratum



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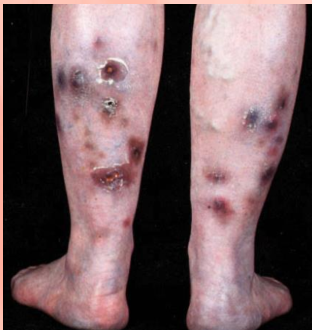
Differential diagnosis

Infection | Inflammation | Malignancy

Erythema induratum



Polyarteritis nodosa

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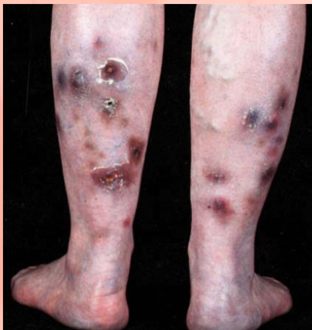
Differential diagnosis

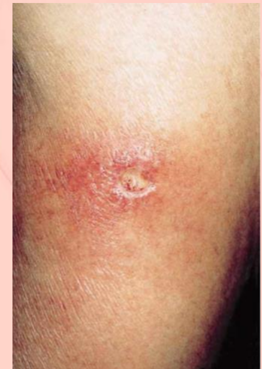
Infection | Inflammation | Malignancy

Erythema induratum



Polyarteritis nodosa

Pancreatic panniculitis



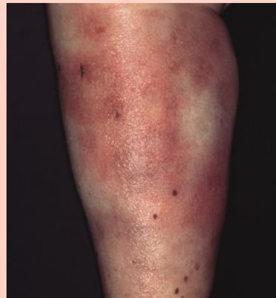
Differential diagnosis

Infection

Inflammation

Malignancy

Subcutaneous panniculitis-like T-cell lymphoma



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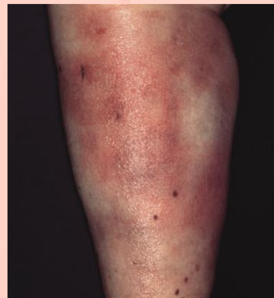
Differential diagnosis

Infection

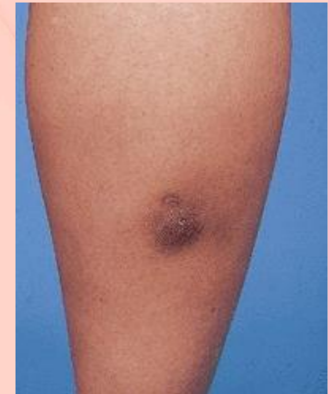
Inflammation

Malignancy

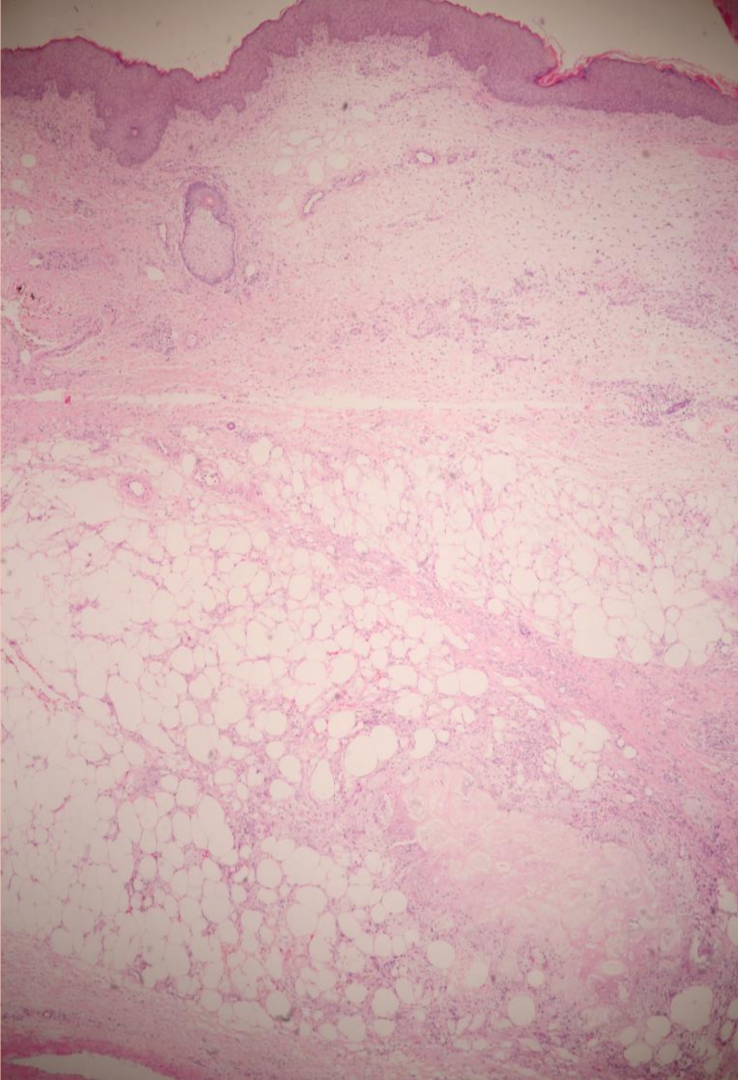
Subcutaneous panniculitis-like T-cell lymphoma



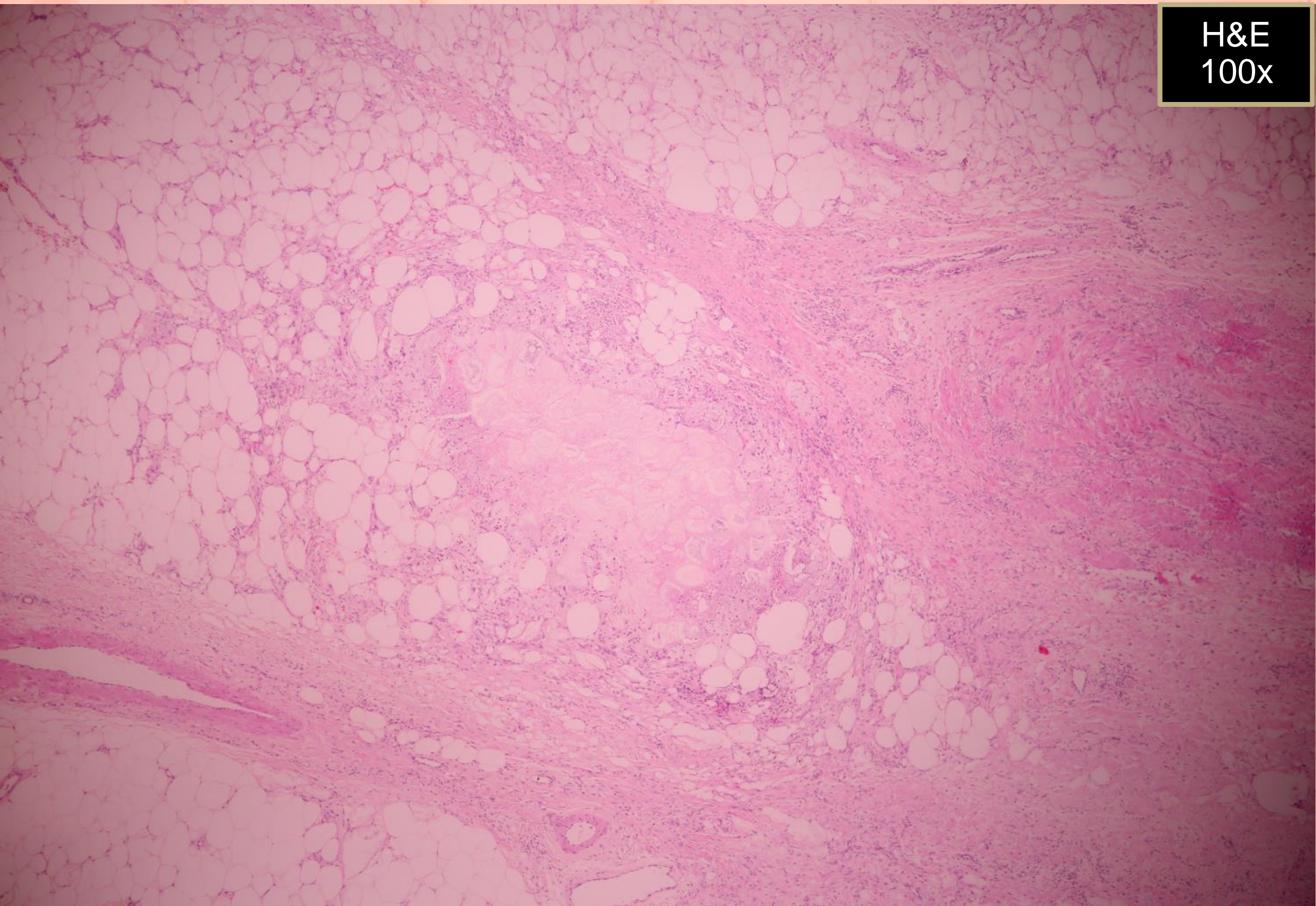
Leukemia/lymphoma cutis

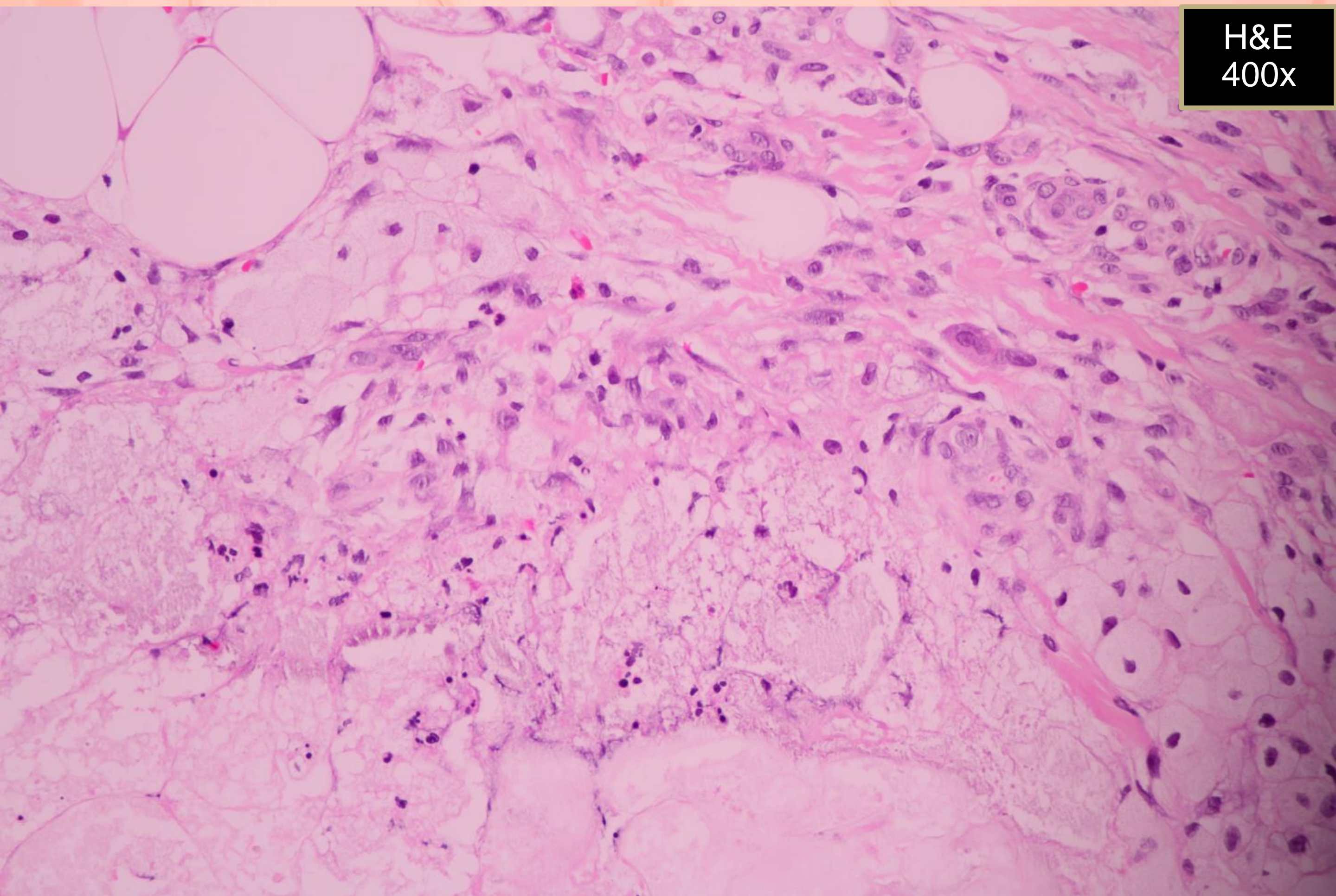


Histopathology



H&E
40x


H&E
100x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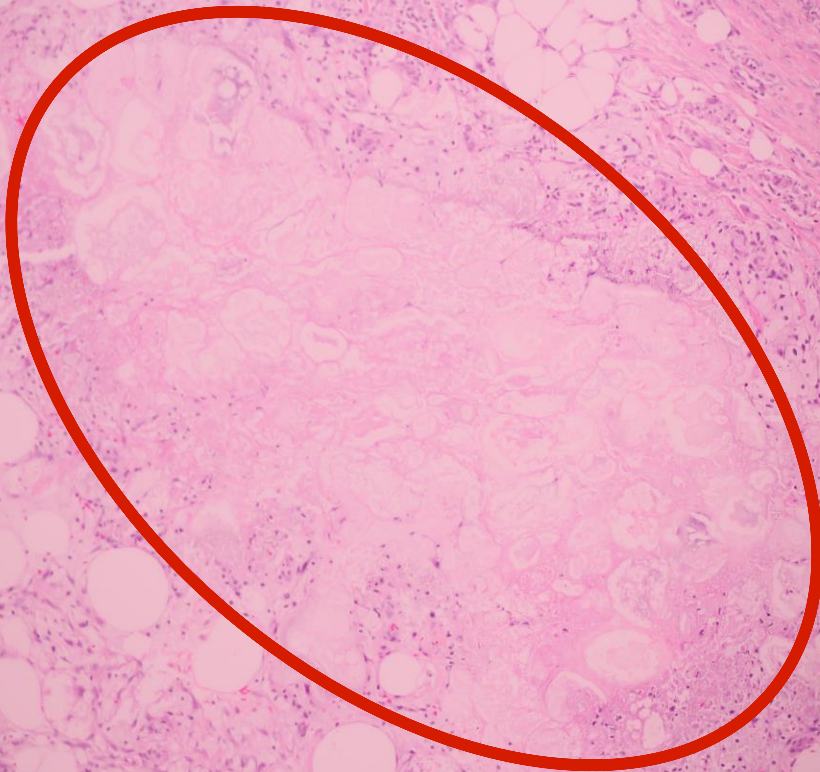
H&E
400x

Special stains

- AFB, B&B, GMS, PAS, Fite: all negative

Tissue findings

- G/S,AFB, mAFB, GMS: negative
- C/S for aerobe, TB, fungus: no growth
- TB direct detection: negative
- 16s, 18s: negative

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Investigations

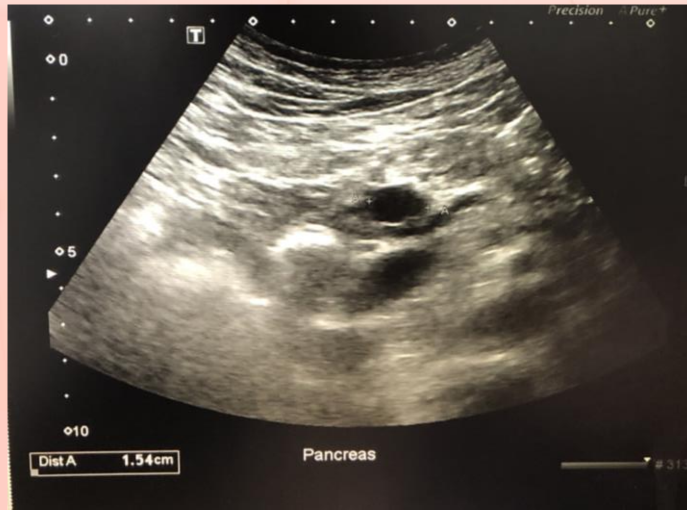
- CBC:
  - Hb 8.4 g/dL Hct 23.4 %
  - WBC 124300 /cumm (N 71% L 17% mono 7% eo 5%)
  - Plt 332000/cumm
- Renal function test
  - BUN 40 mg/dL, Cr 3.2 mg/dL
- Liver function test: WNL
- ESR, C3, C4: WNL

Investigations

- Lipase 10965 U/L, amylase 1173 U/L
- CA 19-9 158.6 U/mL
- CEA 5.8 ng/mL

Imaging

- U/S Whole abdomen:
  -Parenchymatous liver disease
  -Few cysts at pancreatic neck



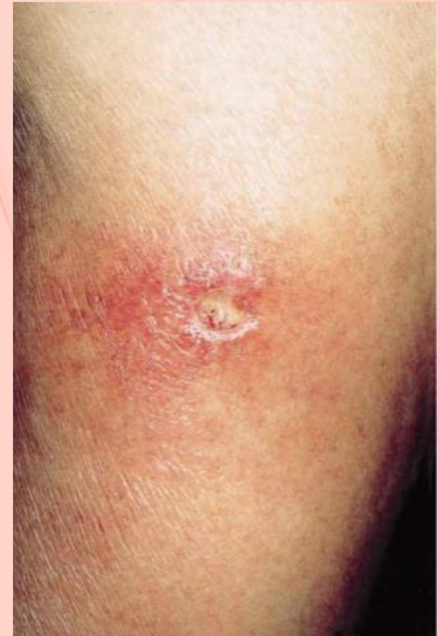
Imaging

- Magnetic retrograde cholangiopancreatography (MRCP):
  - Long segmental dilatation of the main pancreatic duct
  - Intraductal papillary mucinous neoplasm of the pancreas (IPMN) with chronic pancreatitis

Pancreatic panniculitis

Pancreatic panniculitis

- First described by Chiari in 1883
- Approximately 100 publications, mostly case reports
- **2-3%** of patients with pancreatic disorders
- No racial, gender or age predilections



Arch Dermatol. 1975;111:497-502.
Cutis. 1978;21:763-8.

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Clinical features

- Clinical features:
  - Tender erythematous subcutaneous nodules
  - Solitary or in crops
  - Can become fluctuant and ulcerate→oily brown discharge
- Affected sites: legs>trunk, arms and scalp
- Common associated findings:
  polyarthritis, ascites and pleural effusions

Dermatology. 1999;198:182-3.
Br J Rheumatol. 1995;34:680-3.

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Pathogenesis

↑Serum lipase

Peripheral lipolysis

Fat necrosis and secondary immune response causing inflammation

J Am Acad Dermatol. 2001;45:325-61.

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Relationship with pancreatic disorders

- Review of 148 cases
- Median age 60 years old
- 38.6% female

Etiology	Frequency in PP patients (%)
Pancreatitis	49.3
- Acute	− 32.4
- Chronic	− 13.5
- Not specified	− 3.4
Neoplastic conditions	45.9
- Acinar cell carcinoma	− 19.6
- Not specified	− 9.5
- Adenocarcinoma	− 5.4
- Neuro-endocrine carcinoma	− 5.4
- IPMN	− 4.1
- Other	− 2.0
Other	4.7
- Transplant rejection	− 2.0
- Fistula	− 0.7
- Hemosuccus pancreaticus	− 0.7
- Trauma	− 0.7
- Pseudocyst without active pancreatitis	− 0.7

Curr Rheumatol Rep. 2017; 26;19:62.

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Most common cause:
acute pancreatitis

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Relationship with pancreatic disorders

- **60%** developed panniculitis before pancreatic disorder
- May precede primary disease by 1-7 months
- **Poor prognosis for malignant condition**

Curr Rheumatol Rep. 2017; 26;19:62.
Br J Rheumatol. 1995;34:680-3.

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Pancreatic panniculitis and polyarthritis (PPP triad)

- Chronic conditions more frequent
- Chronicity is an important factor favoring joint manifestations

Curr Rheumatol Rep. 2017; 26;19:62.

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Pancreatic panniculitis in SLE

- 2 case reports
- Pancreatic panniculitis without primary pancreatic disorder
- Both African-American female
- Active SLE and ESRD on H/D

J Cutan Pathol. 2019;46:688-690.
J Cutan Pathol. 2000;27:466-471.

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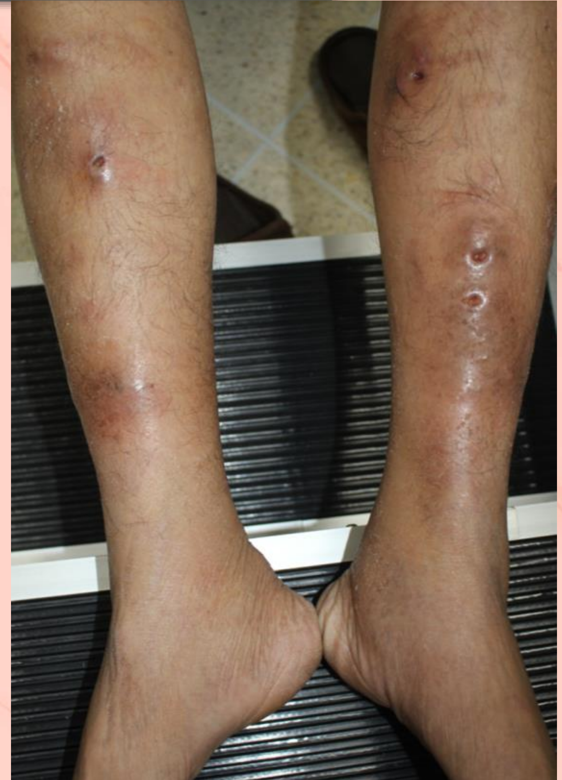
Management

- **Treat underlying condition**
- Normalization of pancreatic enzymes →panniculitis regression
- Supportive treatment: compression and elevation
- Specific treatment: octreotide

J Am Acad Dermatol. 2001;45:325-61

Case summary

- A 34-year-old male
- **CC:** multiple dermal to subcutaneous nodules with small ulcers on both shins for 2 weeks
- **Dx:** pancreatic panniculitis with IPMN of the pancreas
- Spontaneous regression



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Take home messages

Pancreatic panniculitis

Ulcerative nodules on lower extremities

Early recognition is key:
precede pancreatic disorders by 1-7 months