

CPC

Resistant leg Ulcers



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ESIM Riga 2015

- ‘The physician needs a clear head and a kind heart; his (*her*) work is arduous and complex, requiring the exercise of the very highest faculties of the mind, while constantly appealing to the emotions and finer feelings’

- Osler 1906

What is the prevalence of leg ulcers in the adult population?

- A 0.5%
- B 1%
- C 2%
- D 5%
- E 7.5%

Summary of history



Age 64, Past history of RA
Obesity, leg ulcers
Treated for venous leg
ulcers
Non healing, biopsy
showed vasculitis

Punch biopsy of leg ulcer
2009



Progress

2009-2011

Ulcers getting worse

Painful

Thighs

Anterior abdominal wall

2010

Admission with acute abdominal pain

Further investigations

CT Abdomen with contrast

Immunoglobulins/electrophoresis

Bone marrow

Viral screen

2011

Leg ulcers worse

Severe pain

New ulcers, thighs

Leg ulcers 2011

Deep painful and necrotic, thighs and anterior abdominal wall





Problem Solving

- How do we approach a problem when we are not sure what is going on?
- Clinical reasoning-analytical reasoning

An approach for diagnostic prompting

V

I

T

A

M

I

N

V vascular
I infective
T trauma
A autoimmune
M metabolic/endocrine
I idiopathic/iatrogenic
N neoplasia

Rigby et al:Student BMJ 2008: 16, 364-5
DOI: 10.1136/sBMJ.0810364

A diagnostic procedure was
performed.

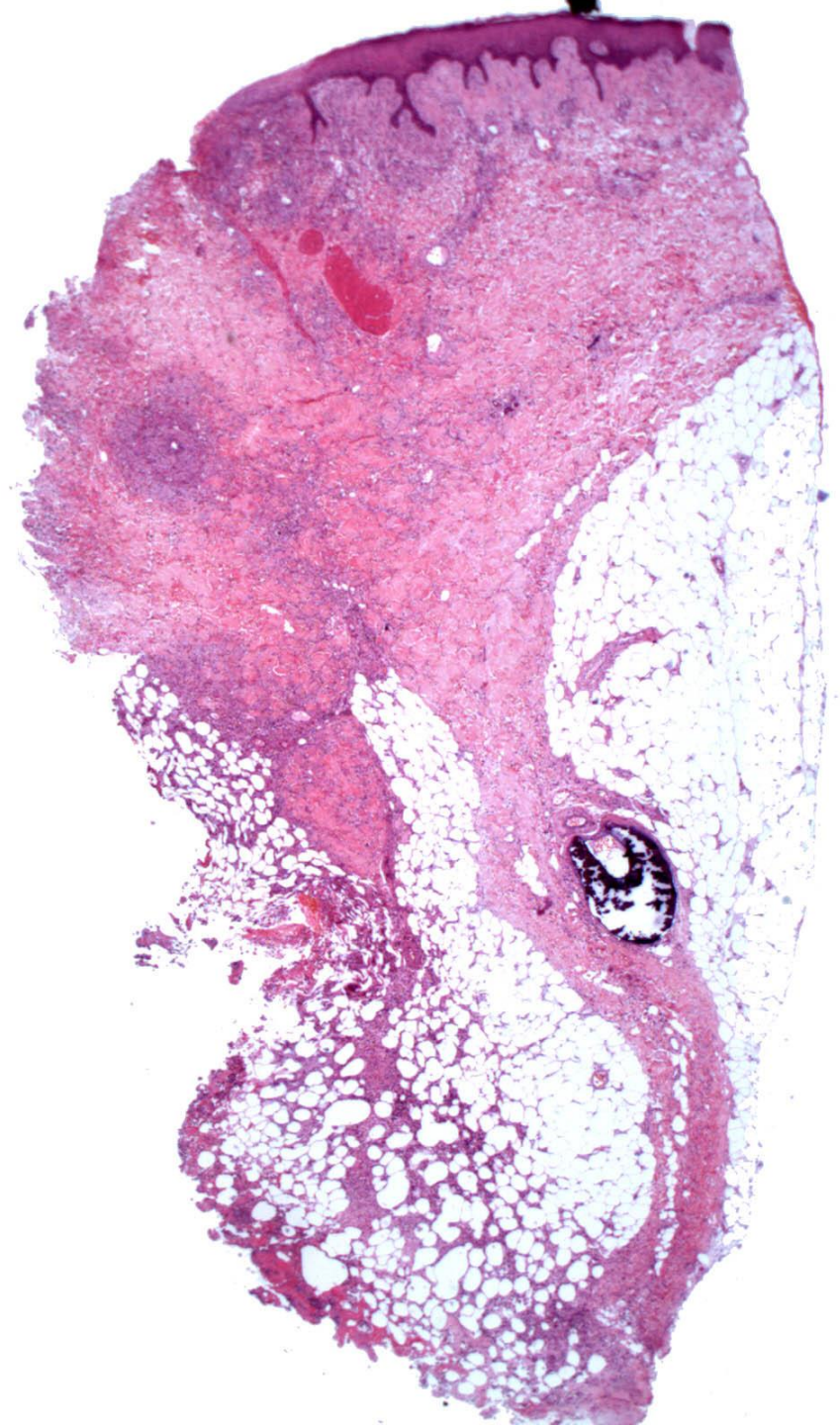
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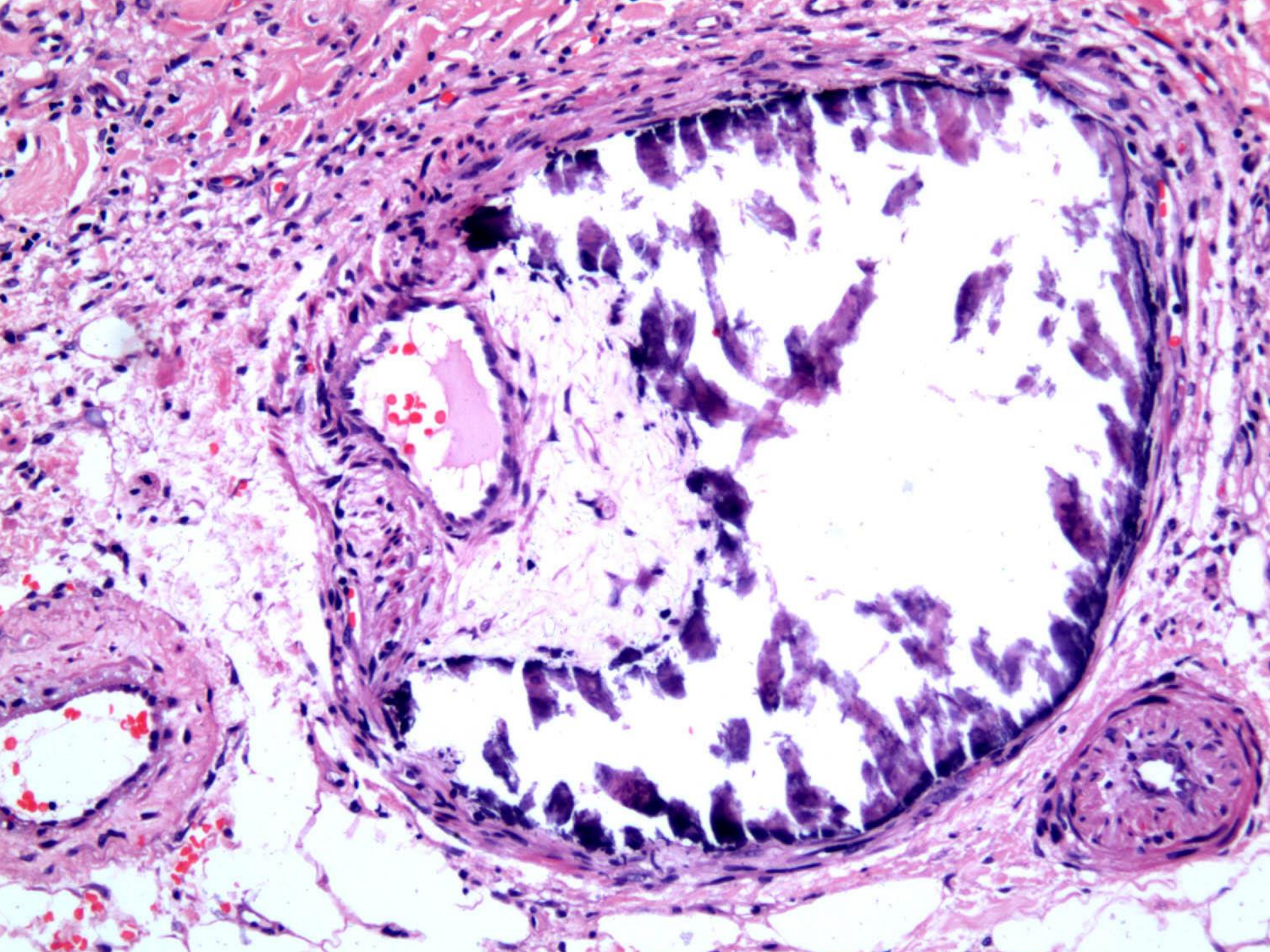
What diagnostic procedure would you perform next?

- A Repeat biopsy of ulcer
- B Syphilis serology
- C Culture of ulcer for TB
- D HbA1c
- E MR/Angiography of legs

Repeat biopsy of leg ulcer

Second biopsy,
deep incisional biopsy
August 2011





Second biopsy Histology Report

There is striking concentric calcification of a superficial subcutaneous muscular vessel raising the possibility of **calciophylaxis**

No active vasculitis seen or specific organisms (Zn, PAS, Brown Brenn).

Calcification seen on
original biopsy, 2009



Diagnosis: Calciphylaxis

Rare cause of ulcers

Usually associated with renal failure

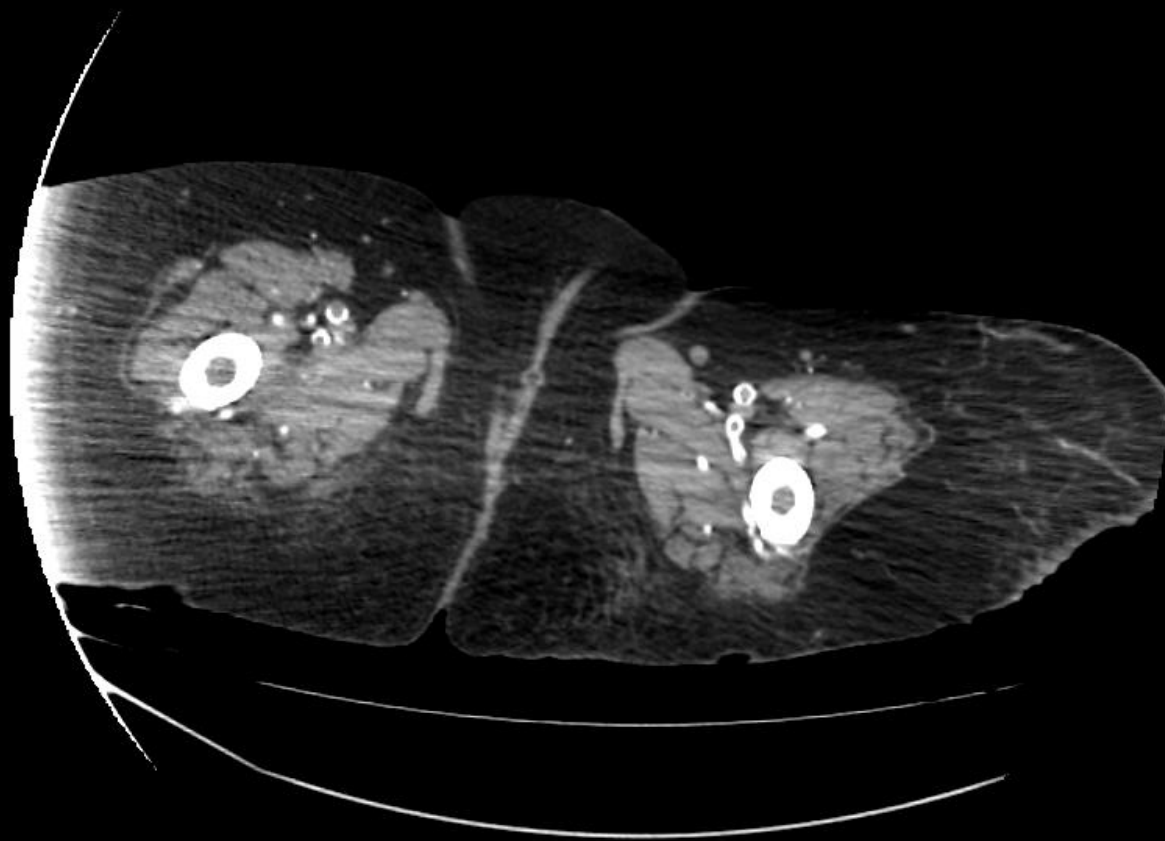
Rare associations: hyper-PTH
obesity
prednisolone
inflammatory diseases

Treatment (anecdotal) sodium thiosulphate

There was no vasculitis

The original histology could be explained by calciphylaxis

CT Abdomen, legs Aug 2011



Progress

Calcium/Vitamin D stopped

Prednisolone reduced

Hickman line inserted

Sodium thiosulphate infusions 3x per week

Hickman line developed leak after ~14 days

Further severe sepsis-dying

Palliative care

Decision made to move to
palliative care

Transferred to hospice

Died after ~4 weeks

Death certificate

1a. Sepsis

1b. Cutaneous necrosis

1c. Calciphylaxis

2. Rheumatoid arthritis

Discussion

This case illustrates:

The human side of Internal
Medicine

The importance of repeating
investigations if patient does not
respond as expected

Take home messages

Consider rare causes of leg ulcer
if not responding to usual
treatment

Don't be afraid to repeat
investigations

Have you seen a patient with
calciophylaxis?

A Yes

B No

C Maybe, but I did not recognise it

Any questions?

Further reading

1) Differential diagnosis of Leg ulcers: Review article
Dissemond et al, 2006(4) 627-634

JDDG: Journal der Deutschen Dermatologischen
Gesellschaft, Journal of German Society of
Dermatology

2) Calciphylaxis with normal renal function: treated with
intravenous sodium thiosulphate.

Smith et al., Clin Exp Dermatology 2012: **37**, 874-8.