Professor Peter Soyer

Academic Dermatologist

Brisbane, Australia

Case Studies in Dermatology - Concurrent Workshop Repeated

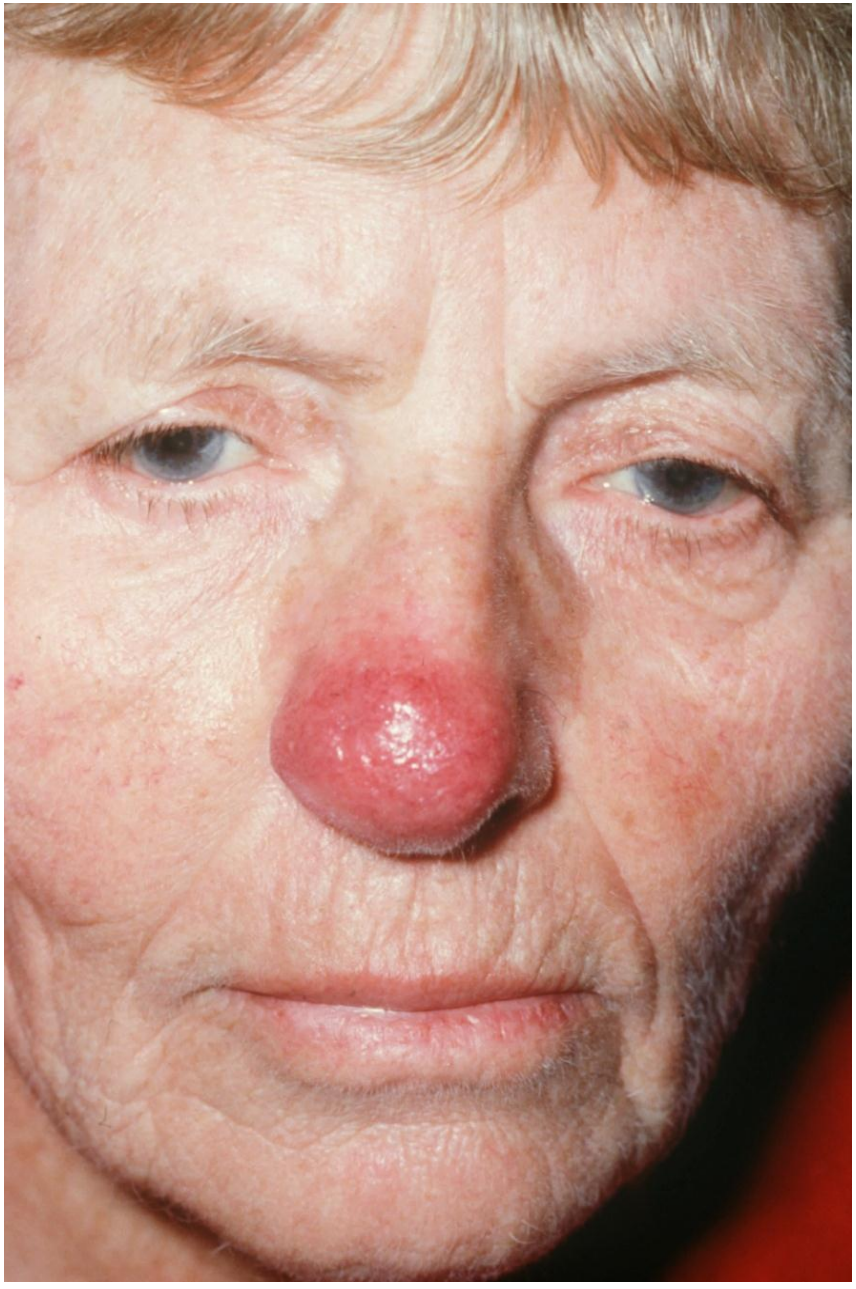
Saturday, 22 June 2013	Start 11:00am	Duration: 55mins	Baytrust
	Start 12:05pm	Duration: 55mins	Baytrust

Case Series in Dermatology

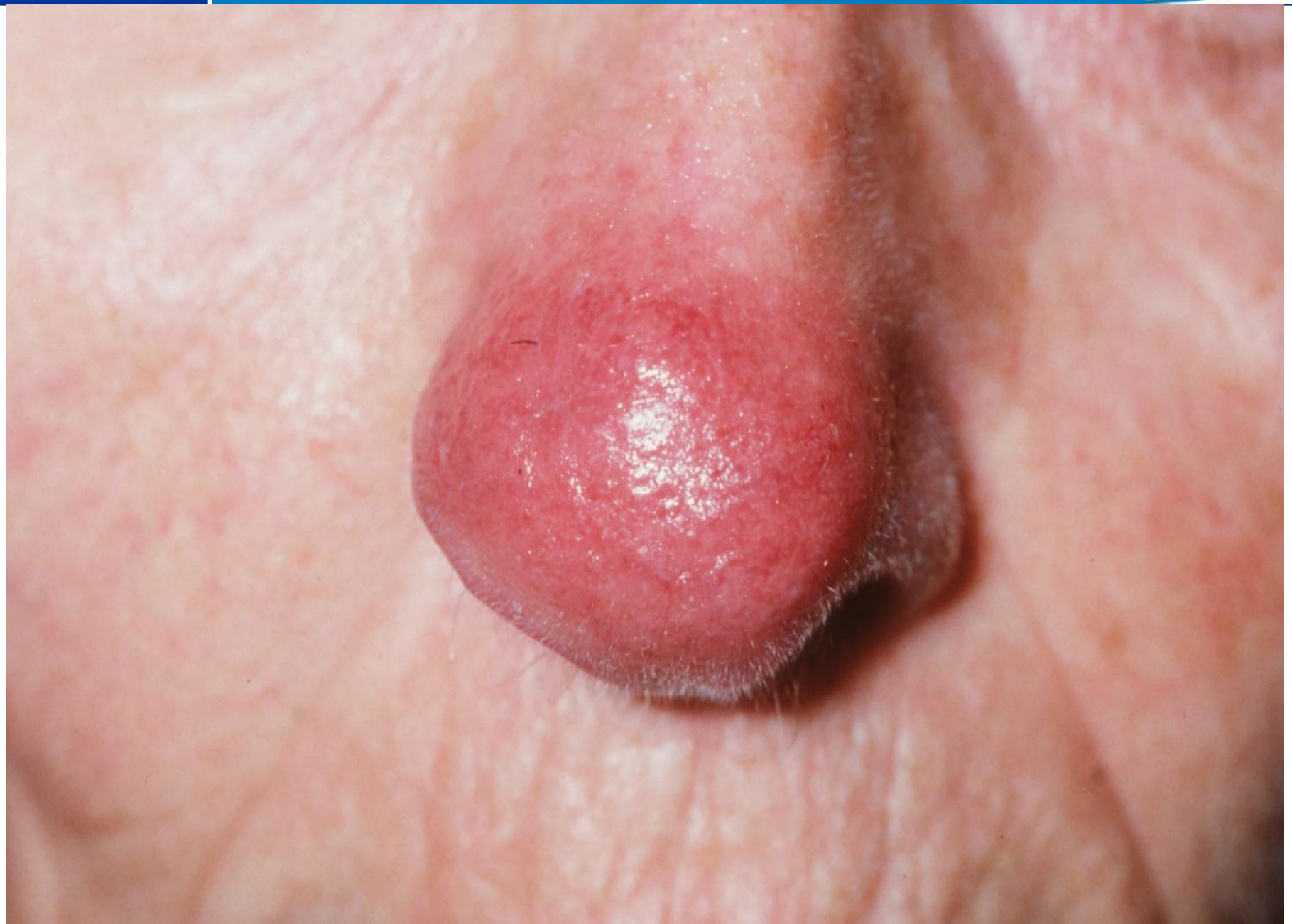
Dermatology Research Centre, The University of Queensland,
School of Medicine, Translational Research Institute
&
Dermatology Department, Princess Alexandra Hospital
Brisbane, Queensland, Australien

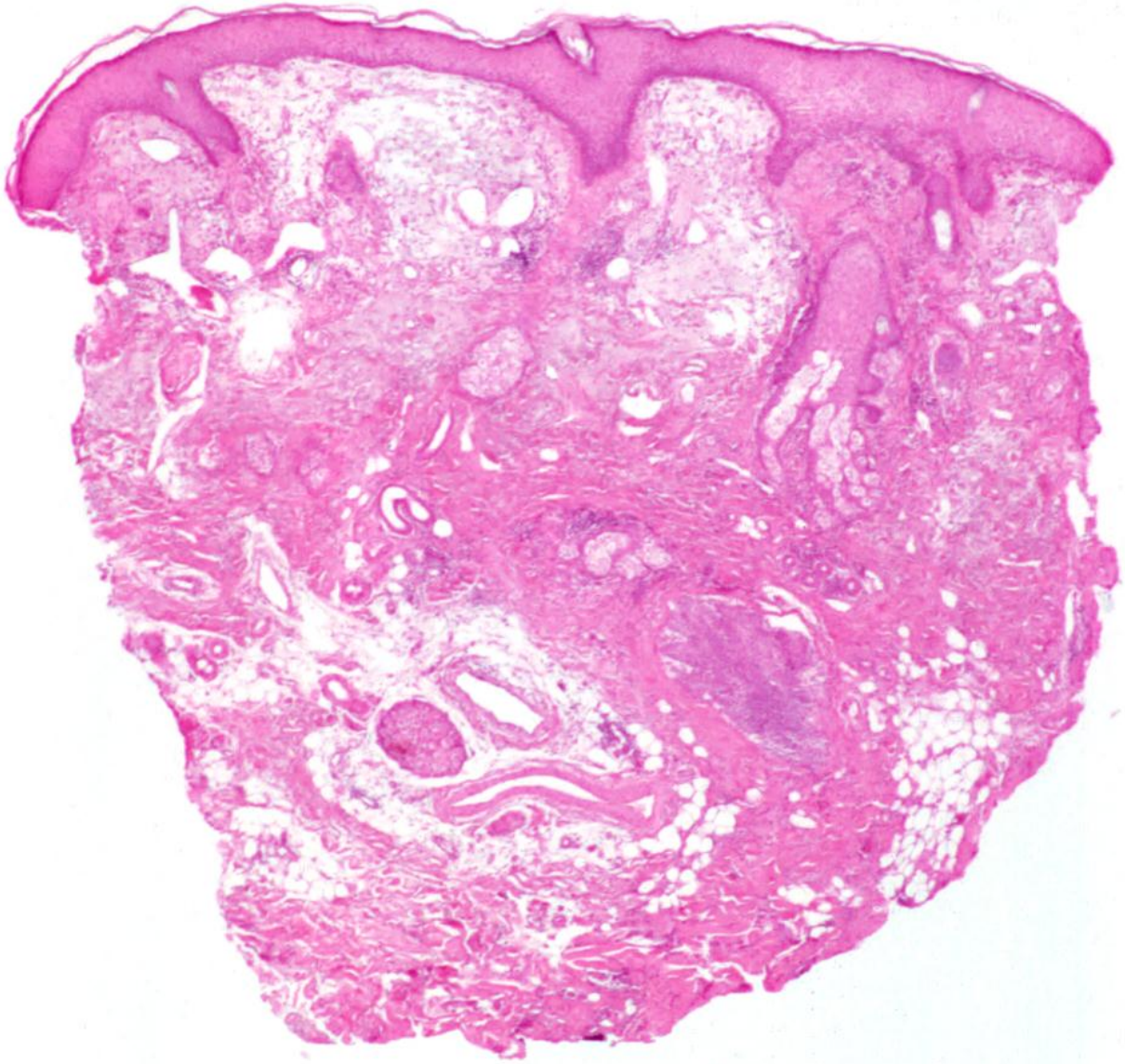
p.soyer@uq.edu.au

Inflammatory diseases

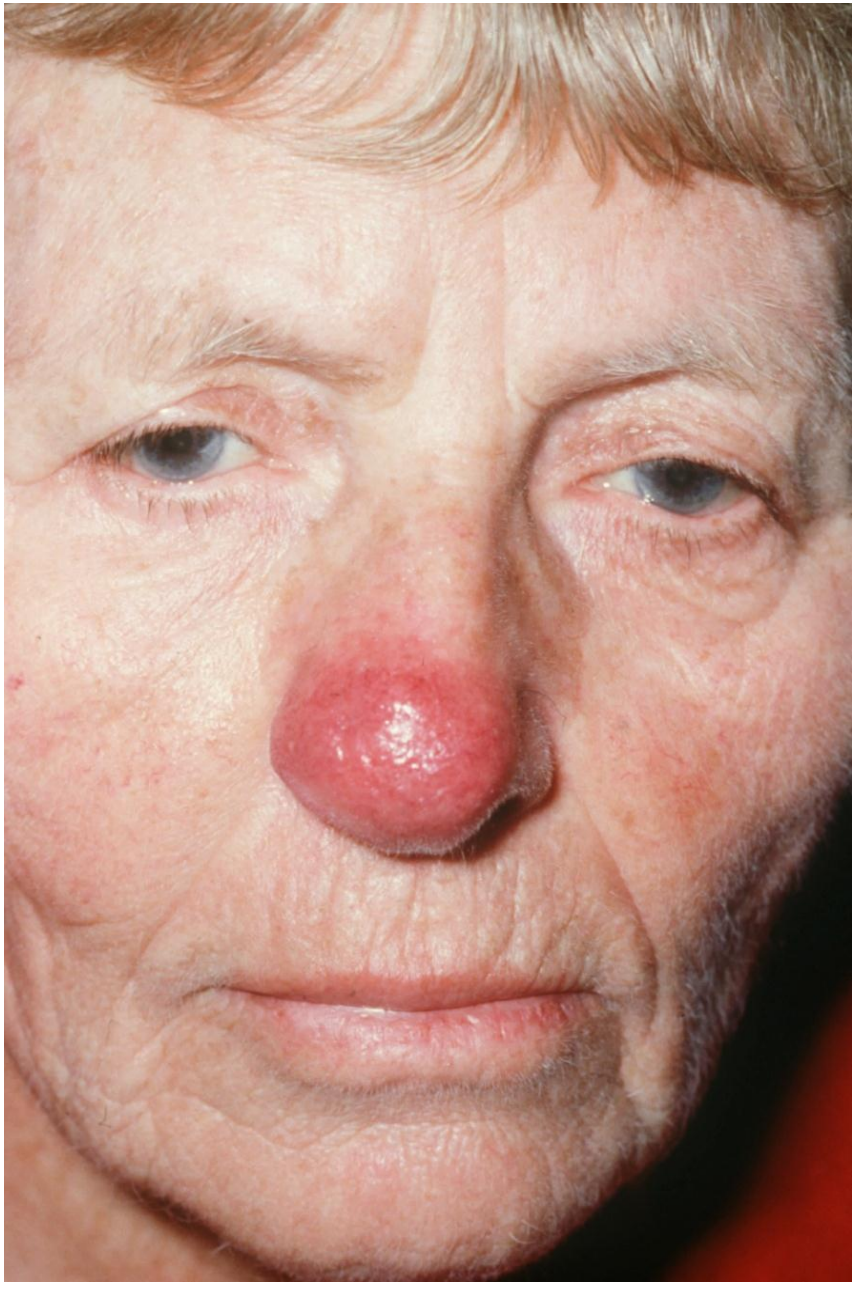


Neoplastic conditions

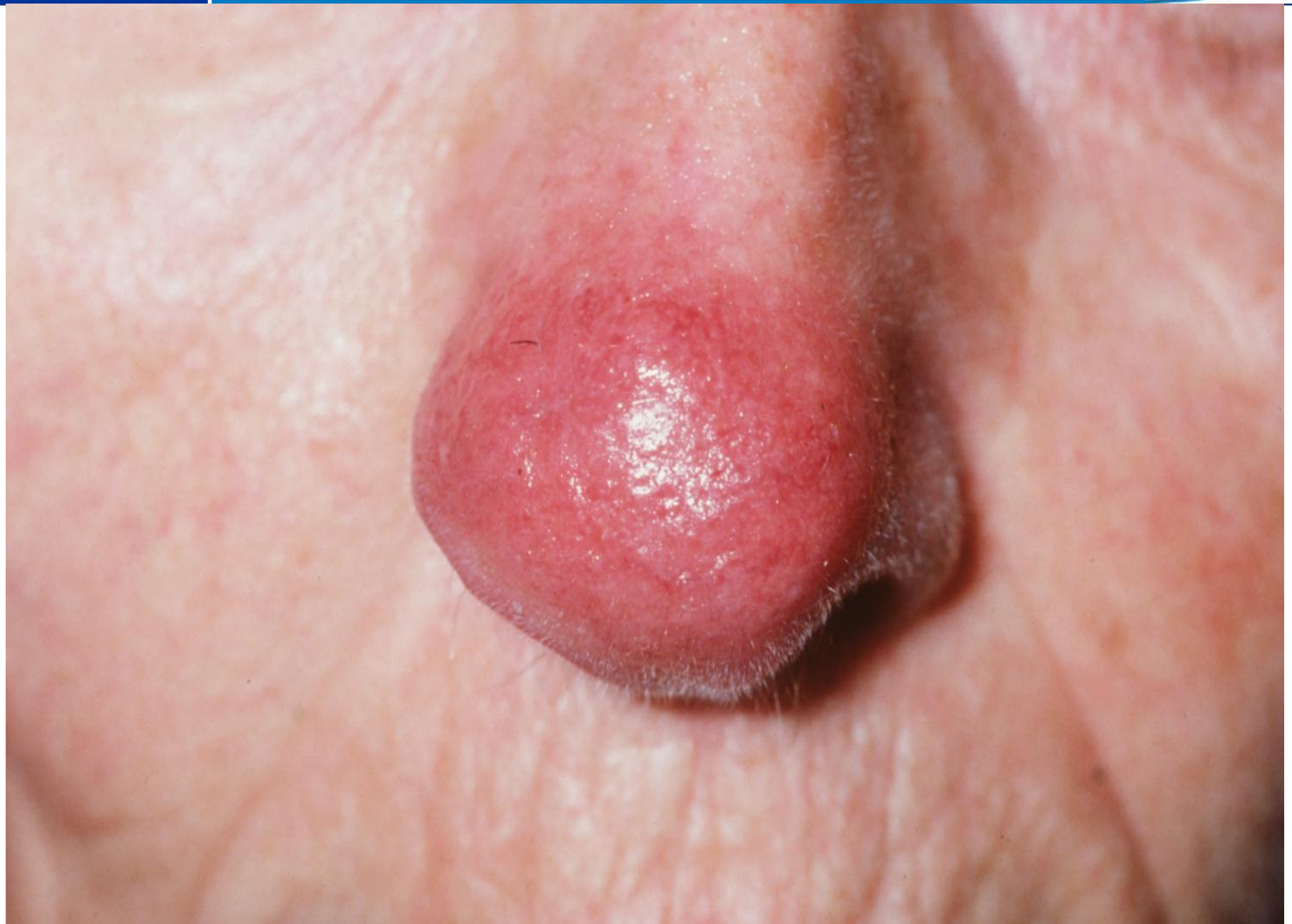


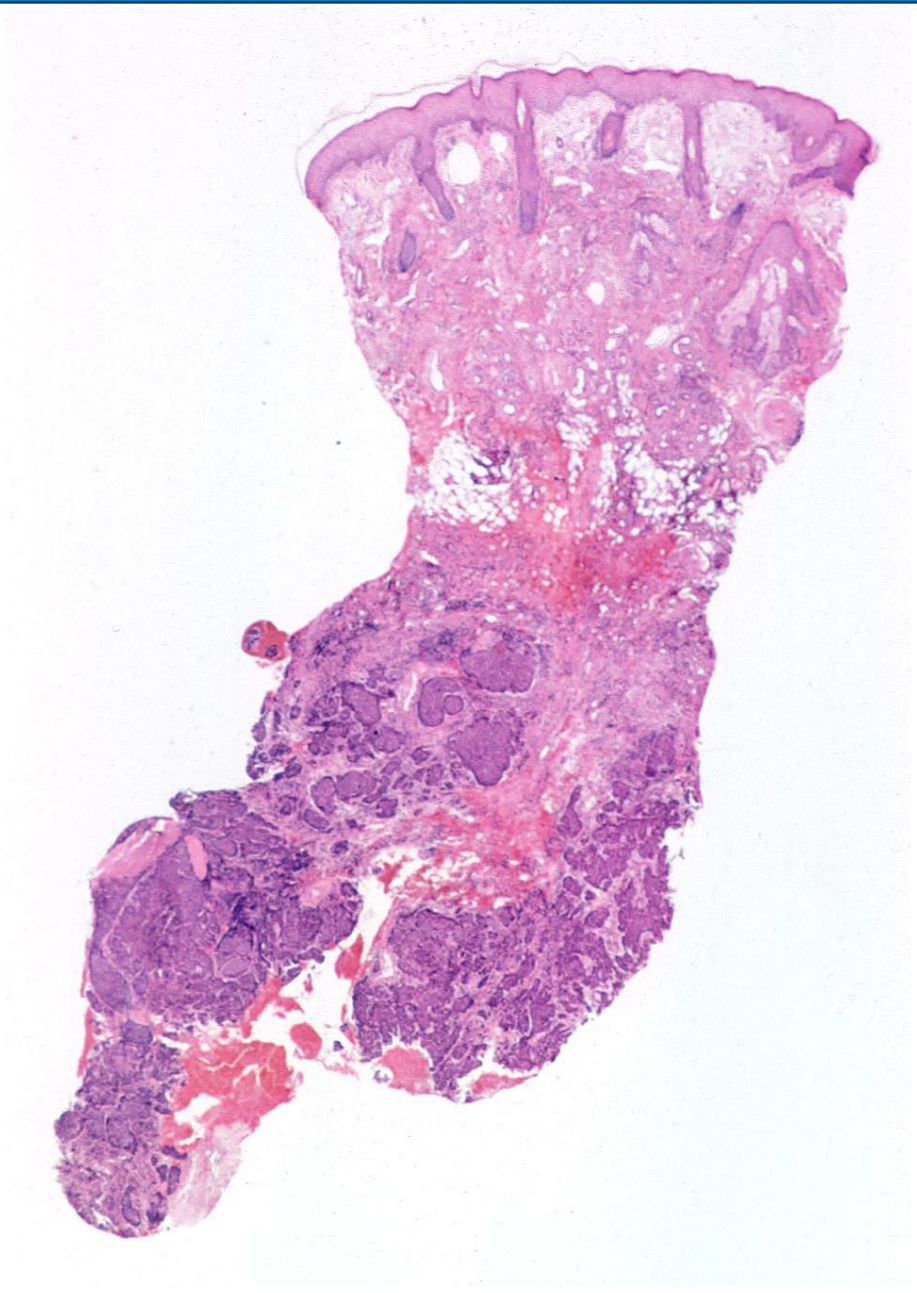


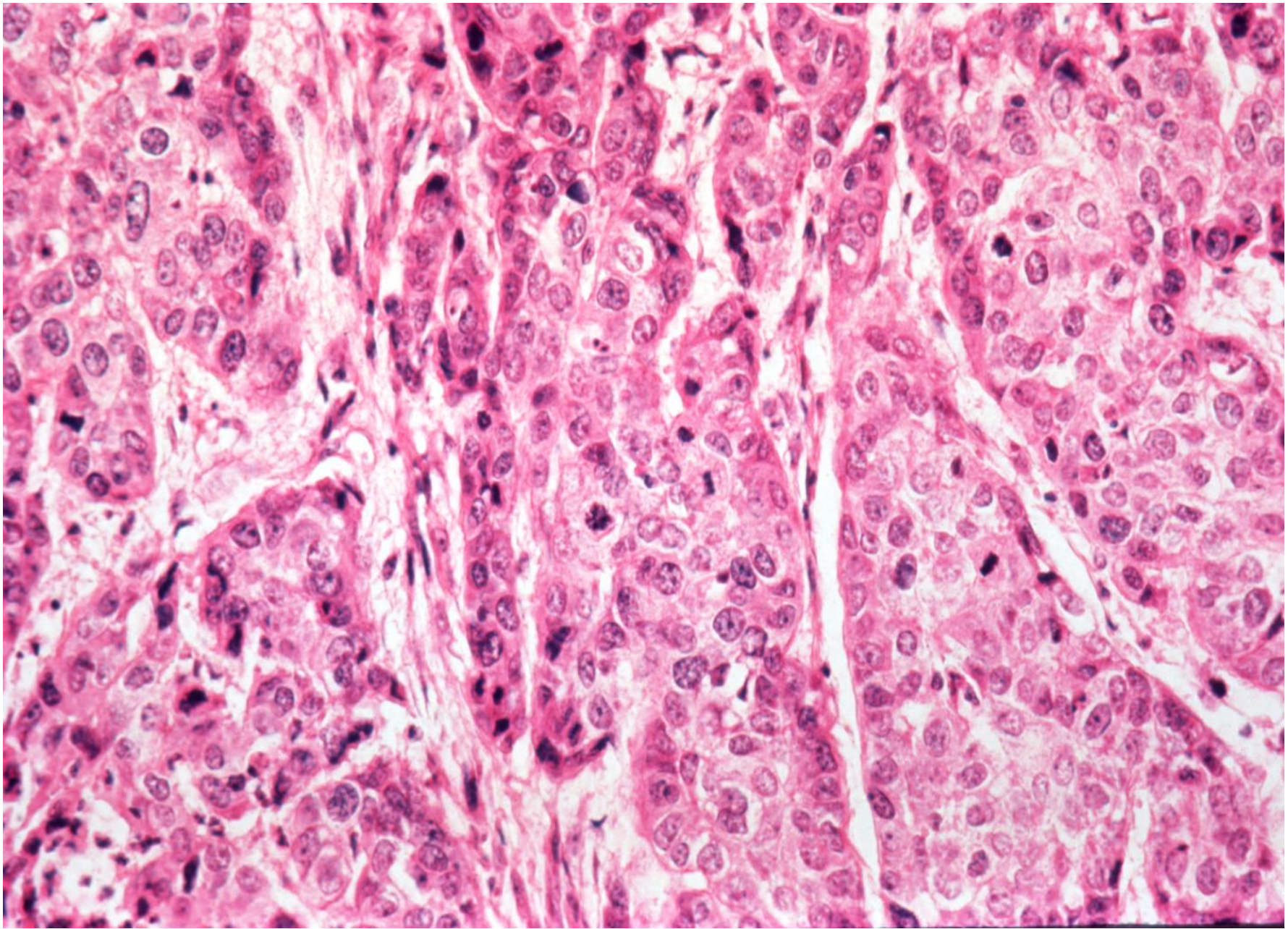
Inflammatory diseases



Neoplastic conditions







Metastatic breast carcinoma


DERMATOLOGY OUTPATIENTS
Professional Prac
Patient Education
Caring
Leadership
Accountability
Person Centred Care
Queensland Health

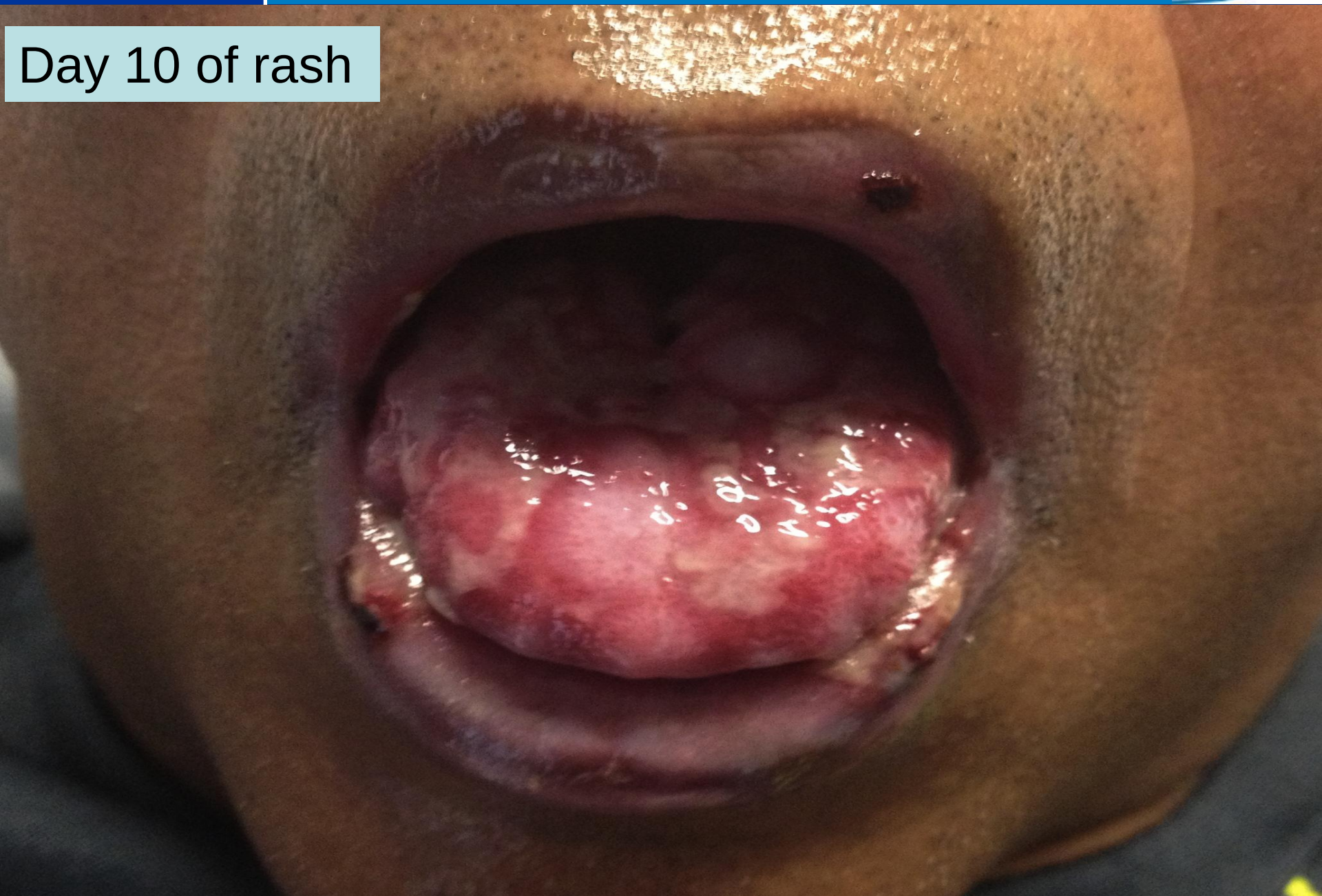
Case – NP

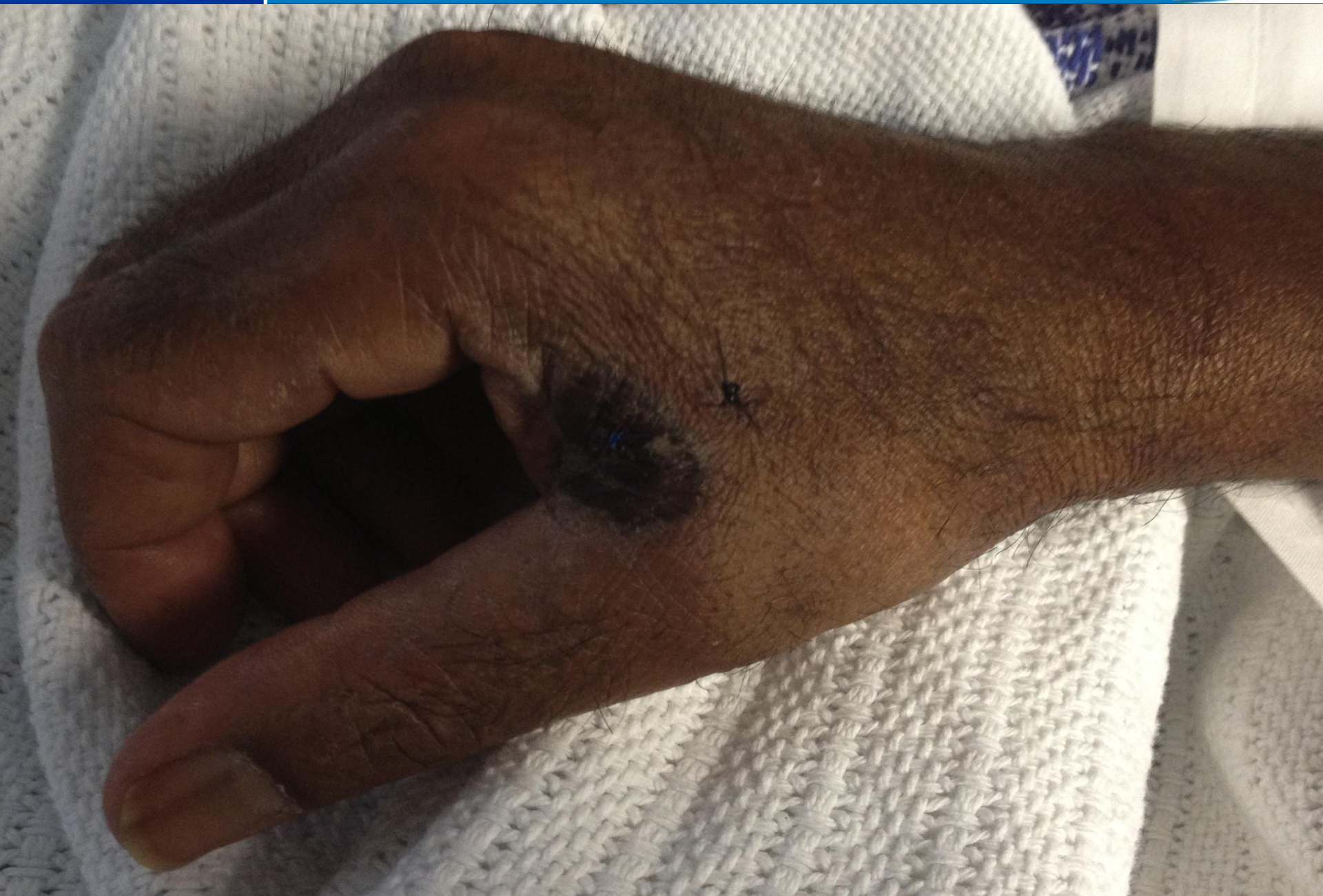
- 64 yo male
- Acute onset severe painful mouth erosions associated with coryzal symptoms
- Blistering lesions developed on scrotum, gland penis and hands on day 2
  - Started on doxycycline by GP
- Presented to Logan Hospital on day 4
  - Worsening lesions, febrile, poor oral intake
- Referred to PA Hospital on day 9, admitted under Rheumatology for ?Behcet's
- Referred for Derm consult on day 10

Additional History

- Denies eye pain, diarrhoea, vomiting, B symptoms, recent travel
- PMHx – Hypertension
- Medications – candesartan/hydrochlorothiazide
  (3 years unchanged)
- Denies over-the-counter medications

Day 10 of rash

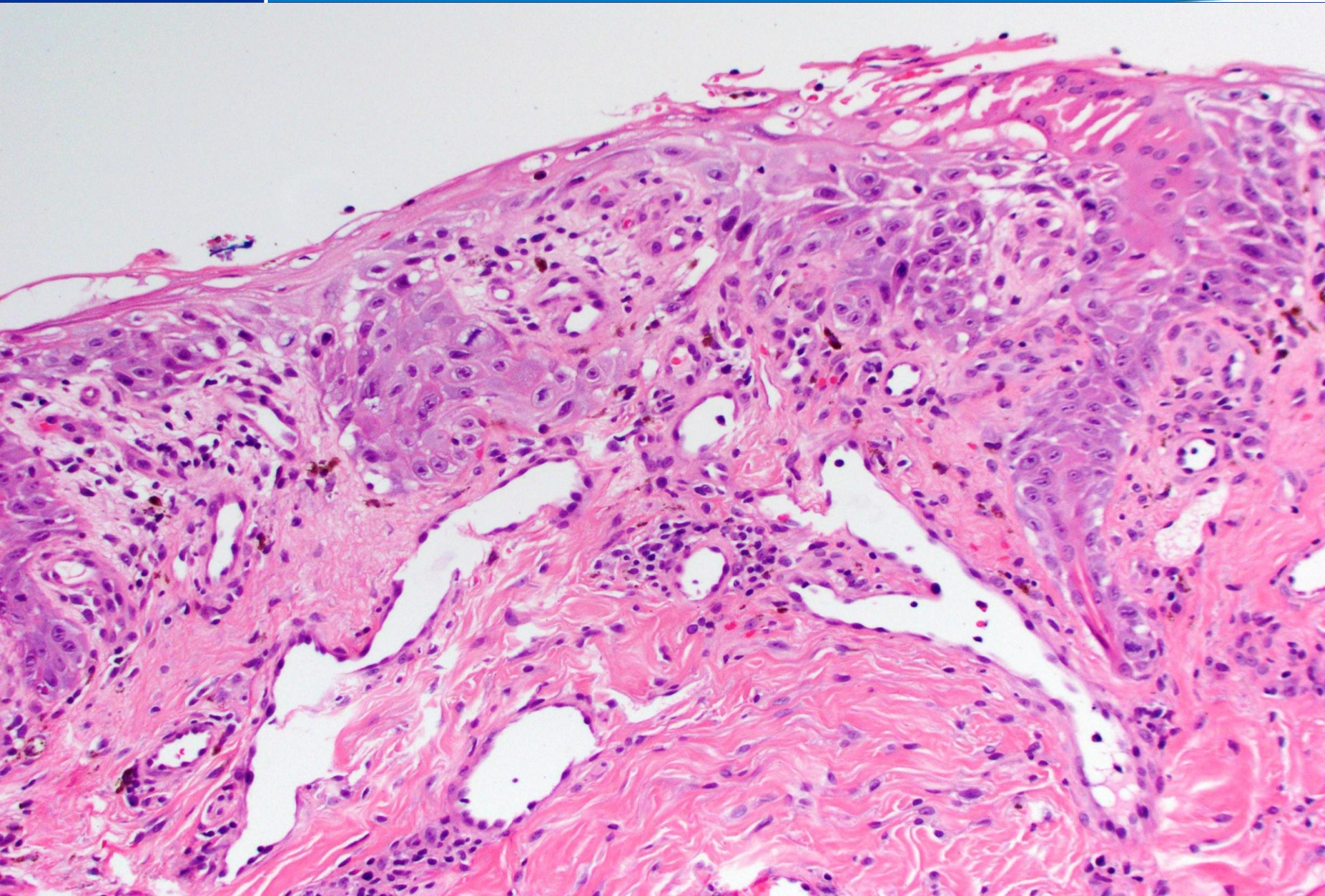




Histopathology

2x 3mm Punch biopsies right hand

- H&E: Focal basal vacuolation, occasional suprabasal apoptotic keratinocytes
- Perilesional IF: Negative



Other Investigations

- On admission: FBC ~normal, ESR 75, CRP 116

- HIV/Syphilis/Hep B/Hep C negative
- SEPP normal, C3/C4 normal, ANCAs negative, ANA speckled 40, ENA/dsDNA negative

- Indirect IF negative
- Quantiferon gold/Mycoplasma serology negative
- Blood culture negative

- Swab penis: mixed skin flora, Chlam/gGn negative
- Swab mouth: normal oral flora, HSV1/HSV2/VZV/Syphilis negative
- PSA normal

- CT chest/abdo/pelvis: ?osteochondral lesion left iliac bone, 4mm pulmonary nodule
- MRI: osteochondroma

Possible diagnoses

- ? Erythema multiforme major
- ? Paraneoplastic pemphigus

But… no cause found for either

	Paraneoplastic pemphigus	EM major
Aetiology	- Non-Hodgkin lymphoma - CLL - Castleman's disease - Thymoma - Sarcoma - Carcinomas - ? Fludarabine chemotherapy	- Infections: HSV, Mycoplasma, other viral infections (eg. HIV, adenovirus), bacterial infections, histoplasmosis - Drug reactions, including vaccinations - Contact reactions - Miscellaneous: carcinoma, lymphoma, leukaemia, LE (Rowell's syndrome), PAN, pregnancy, premenstrual, 'autoimmune progesterone dermatitis', sarcoidosis, Wegener's granulomatosis, PMLE, radiation
Pathology	- Necrosis of keratinocytes or vacuolar interface dermatitis - Suprabasal clefting with acantholysis - Direct IF: Ig (predominantly IgG1) and/or complement at BMZ - Indirect IF: positive (plakin family)	- Vacuolar degeneration of lower epidermis - Epidermal necrosis - Prominent dermal inflammatory changes (dermal subtype)
Clinical features	- Severe mucosal erosions - Blisters, erosions esp. on upper body - Palmoplantar target lesions - Pulmonary involvement (bronchiolitis obliterans)	- Sudden onset (may have 1-13 day prodromal systemic illness) - Extensive target lesions (preferentially acral) and mucous membrane involvement
Treatment	- Generally refractive to all treatments - Oral corticosteroids, AZA, CsA, MMF, rituximab, cyclophosphamide, IvIg, plasmapharesis - Cases associated with benign/low-grade neoplasms may remit post removal	- Oral corticosteroids

Source: Rook's Textbook of Dermatology, www.uptodate.com

Treatment

- 80mg prednisone started day 9 of rash (1mg/kg/day)
- Mouth cares: sodium bicarbonate, lignocaine, kenalog in orabase, dexamethasone rinses

  -> rapid response

Case – CF

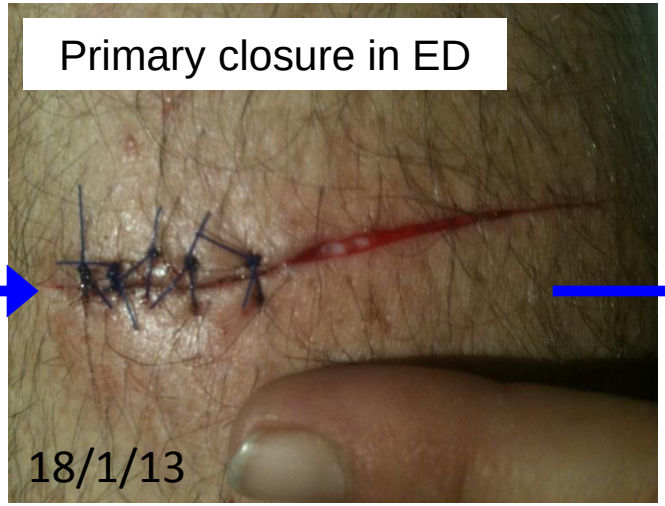
- 32 yo male
- Referred by Townsville Hospital for dermatology input of chronic wound ongoing 3 months
- History:
  - Initial laceration to left lateral leg (cut on poolside tiles after fall), primary closure in Townsville Hospital ED, reportedly dehisced within 24 hours
  - Re-presented to ED 2 days later, wound cleaned, steri-strips applied
  - Multiple presentations and admissions for necrotic wound + poorly controlled pain, surgically debrided
  - Provisional diagnosis of pyoderma gangrenosum made after ~3 weeks, but poorly responsive to treatment

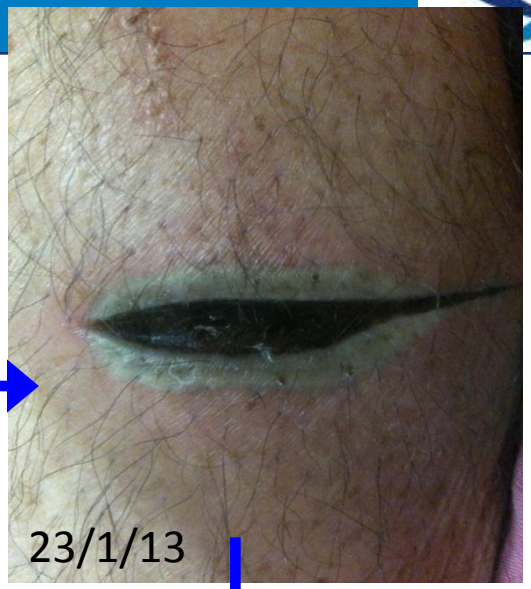
History

- PMHx
  - "Undifferentiated" colitis
  - Depression
  - Smoker
- Medications
  - Escitalopram

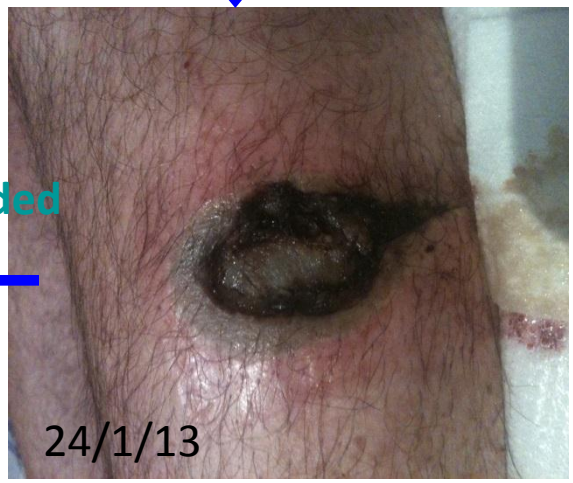
Leg cut on pool tiles

Primary closure in ED

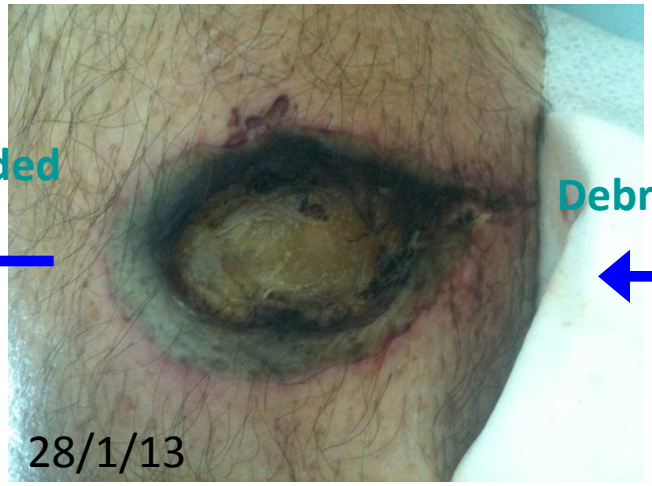




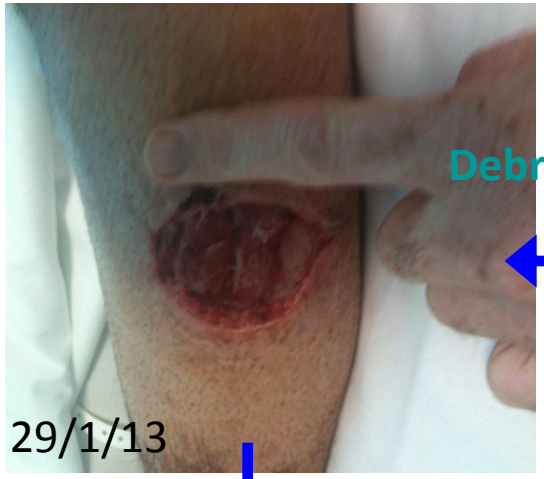
Debrided



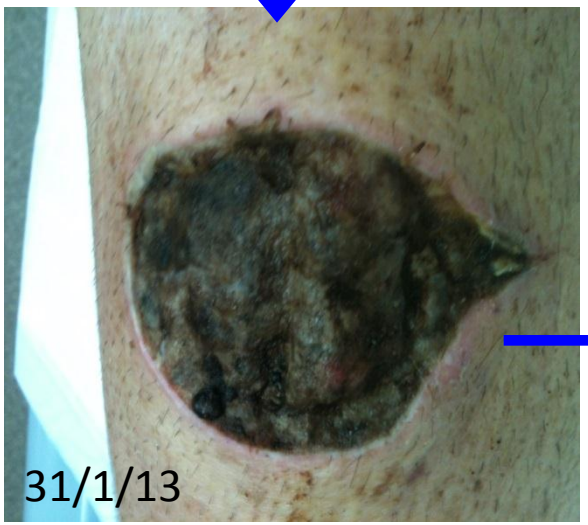
Debrided

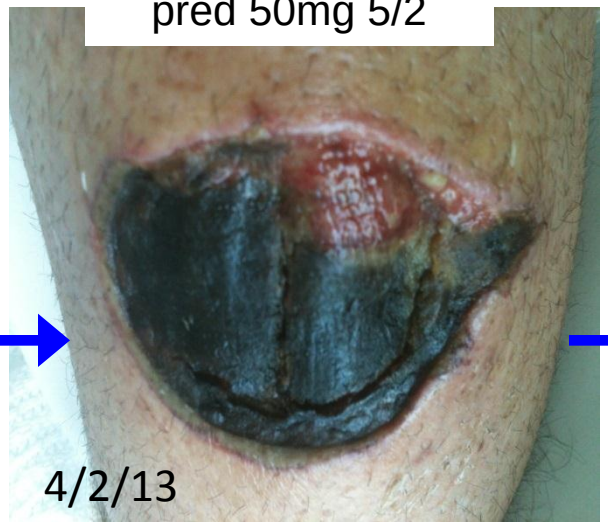


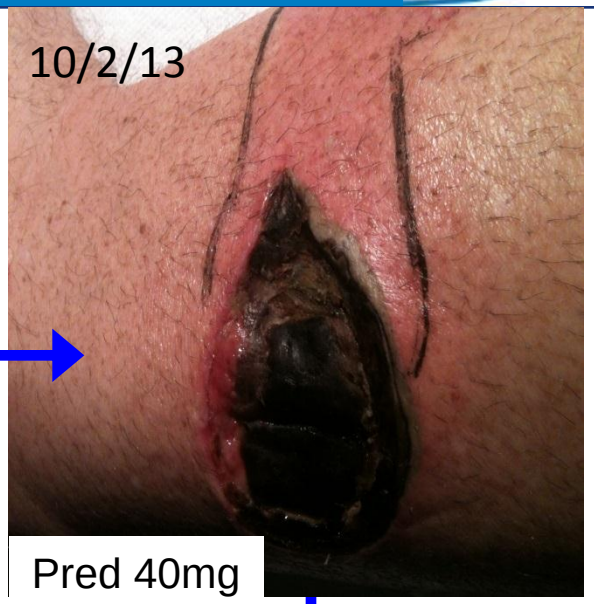
Debrided



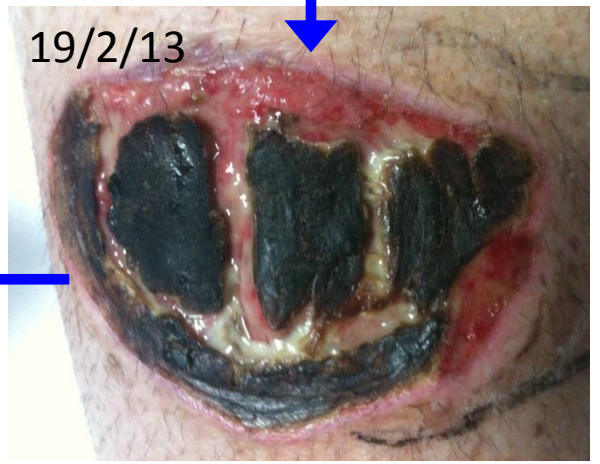
Hydrocortisone iv 1000mg bd 2-5/2, pred 50mg 5/2

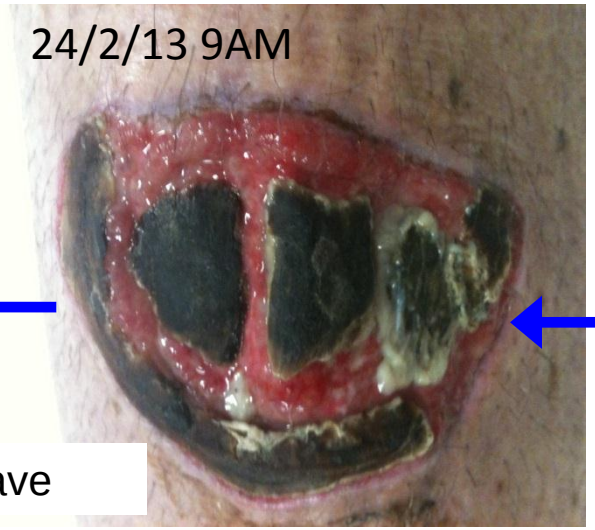


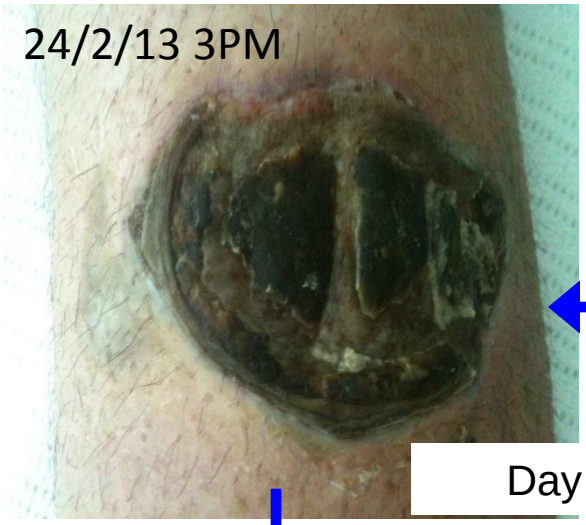




Pred 40mg







Day Leave

Histopathology

- 28/1: necrotic muscle, inflammatory reaction with macrophages engulfing dead muscle, some thrombosed vessels, no vasculitis
- 13/2: complete necrosis of skin and fat
- 11/4: ulcer with underlying scar, inflammed granulation tissue, focal superficial necrosis, bacterial organisms in surface exudate, eosinophilic material with foreign body reaction

Investigations

- C3, C4, serum amylase normal
- ANA/ENA/Anti-dsDNA, ANCAs, Lupus A/C screen, HepB/C, Syphilis, RhF, Anti-cardiolipin Ab, Cryoproteins, EPP, Leptospira, Cryptococcal negative
- Tissue culture 23/1: mixed skin flora; 28/1: negative; 13/2: MRSA, Candida; 11/4: mixed skin flora, M.ulcerans PCR negative
- Swab mcs 28/1: Pseudomonas putida; 10/2 MRSA; 18/2 MRSA; 1/3 Candida; 22/3: P.aeruginosa, Candida
- Faecal mcs, ocp negative
- Faecal calprotectin normal
- Abdo USS: mild hepatomegaly
- Doppler USS and CT angiogram left leg: normal
- BM aspirate and trephine: mildly hypocellular marrow, no evidence of CML, consistent with reactive leucocytosis (performed after FBC/film demonstrating persistent left shift/toxic changes)
- Colonoscopy: normal

Possible diagnoses

- ? Treatment-recalcitrant pyoderma gangrenosum
- ? Dermatitis artefacta

Treatment

- 23/1, 24/1, 28/1, 11/4: surgical debridement
- Abs (at various times): flucloxacillin, vancomycin, tazocin, ciprofloxacin, cephazolin, fusidic acid + rifampicin, bactrim
- 2/2 - 5/2: pulsed hydrocortisone iv 1000mg bd
- 16/2 - 19/2: pulsed methylprednisone iv 750mg
- 26/2 - 22/3: CsA 200mg bd (ceased due to hypertension)
- 7/3, 18/3: methylprednisone iv 1000mg
- 11/3, 21/3: infliximab 300mg
- 28/3: infliximab 500mg
- 28/3: subgluteal sciatic nerve catheter tunnelled (leaked, removed 29/3)
- 12/4 - 16/4 and 26/4 - 30/4: IvIg 400mg/kg/day (total 2g/kg)
- Lignocaine infusion 17/4
- Currently: prednisone 25mg daily (since 5/2, up to 75mg daily), VAC dressing (since 19/4)

Diagnosis of Pyoderma Gangrenosum

Two major criteria:

- Rapid progression (margin expansion of 1-2cm per day, or 50% increase in ulcer size within 1 month) of a painful, necrolytic, cutaneous ulcer with irregular violaceous undermined border
- Exclusion of other causes of cutaneous ulceration

Two minor criteria:

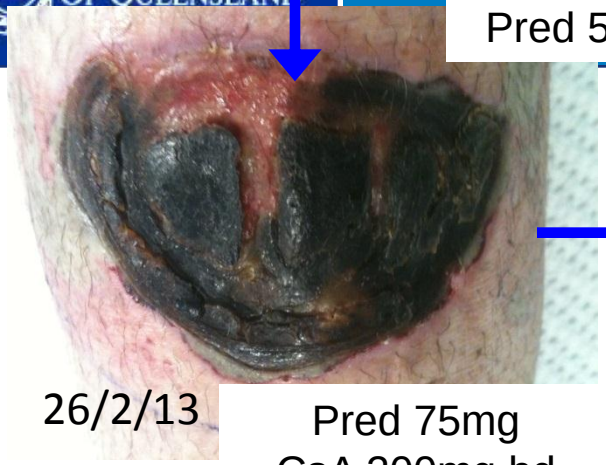
- History suggestive of pathergy or clinical finding of cribriform scarring
- Systemic diseases associated with PG
- Histopathological findings (sterile dermal neutrophilia +/- mixed inflammation +/- lymphocytic vasculitis)
- Treatment response (rapid response to corticosteroid treatment)

Source: Su et al. Int J Dermatol 2004

Treatment of PG with IvIG

- 10 reports (26 patients) of IvIg used successfully in PG
  - Long-standing, refractory disease, unsuitable for other treatments
  - Doses: 0.5g/kg/day, or 1g/kg/day for 2days, or 0.4g/kg/day for 5 days, variable number of treatments
  - MOA in PG: target humoral and cell-mediated derangements ?via antibody Fc fragment

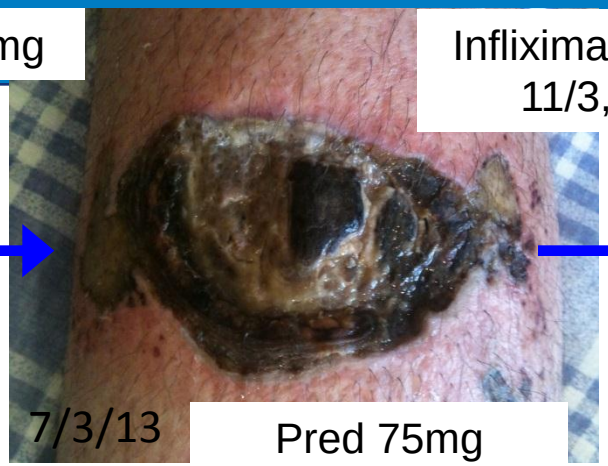
Source: De Zwaan et al. Aust J Dermatol 2009



26/2/13

Pred 75mg
CsA 200mg bd
(ceased 22/3)

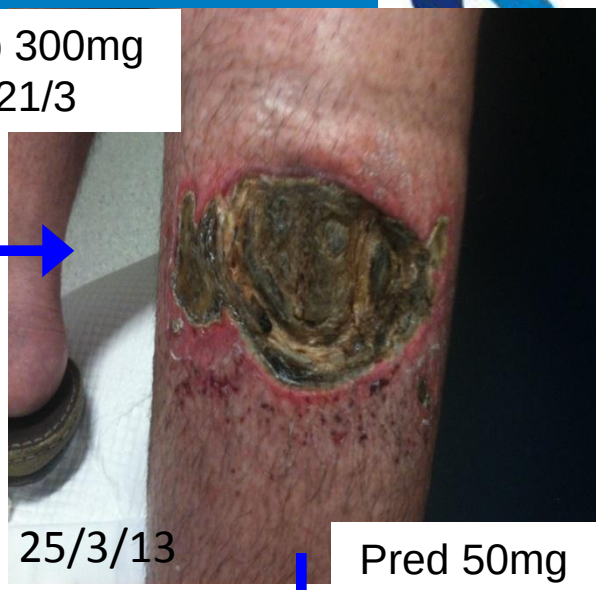
Pred 50mg



7/3/13

Pred 75mg
Methylpred
1000mg

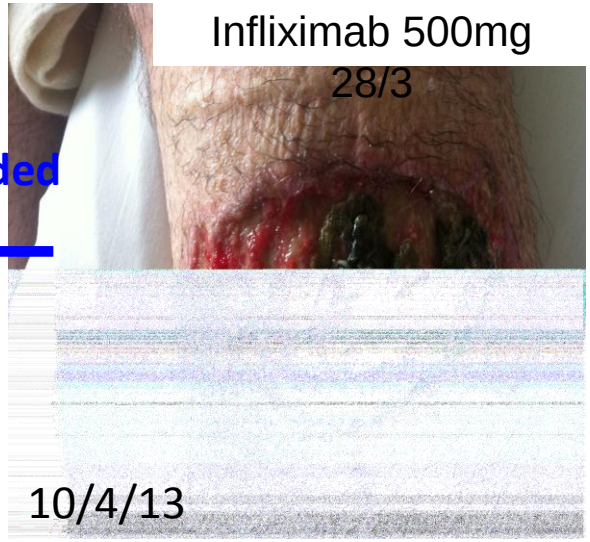
Infliximab 300mg
11/3, 21/3



25/3/13

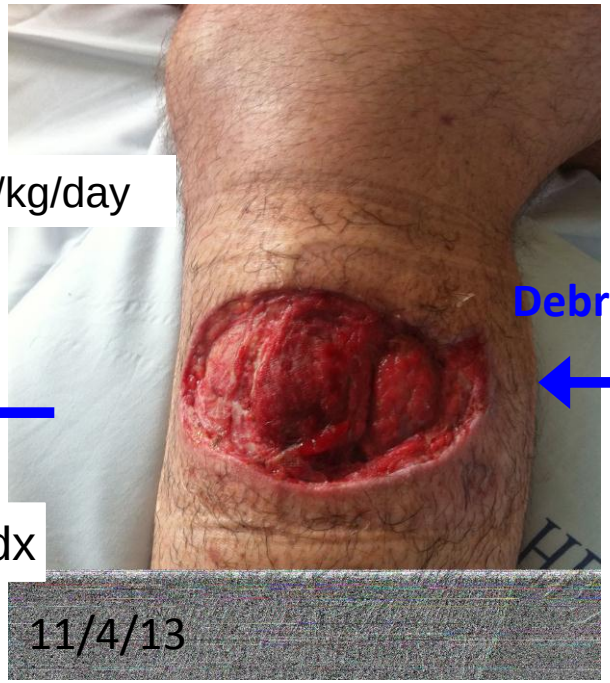
Pred 50mg

Infliximab 500mg
28/3



10/4/13

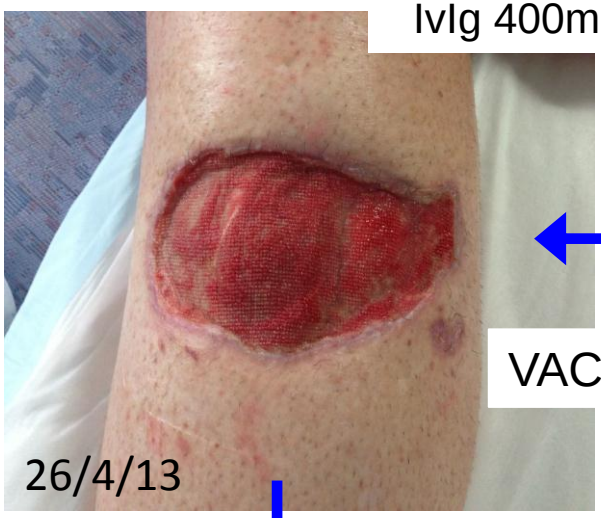
Debrided



11/4/13

IvIg 400mg/kg/day

VAC dx



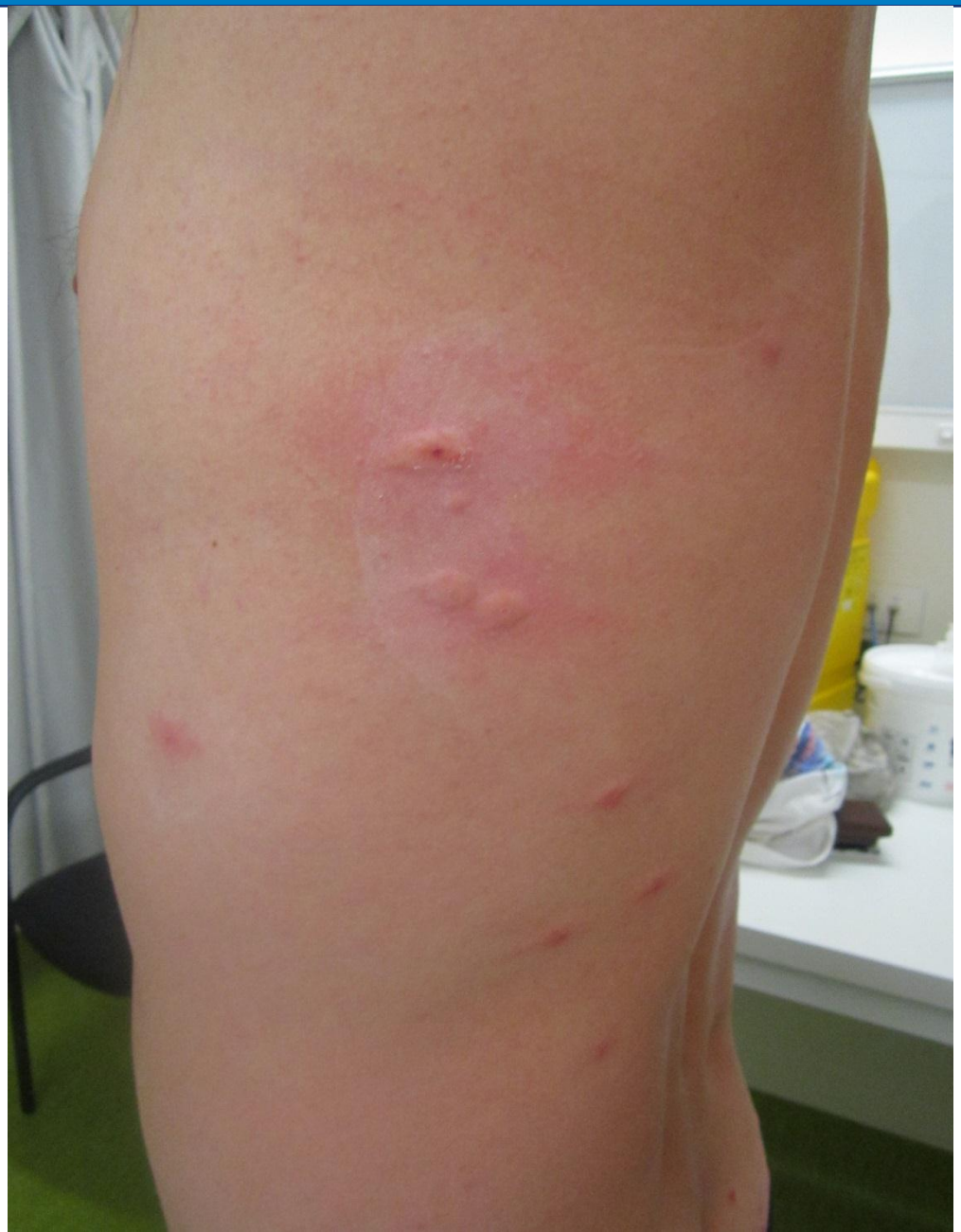
26/4/13

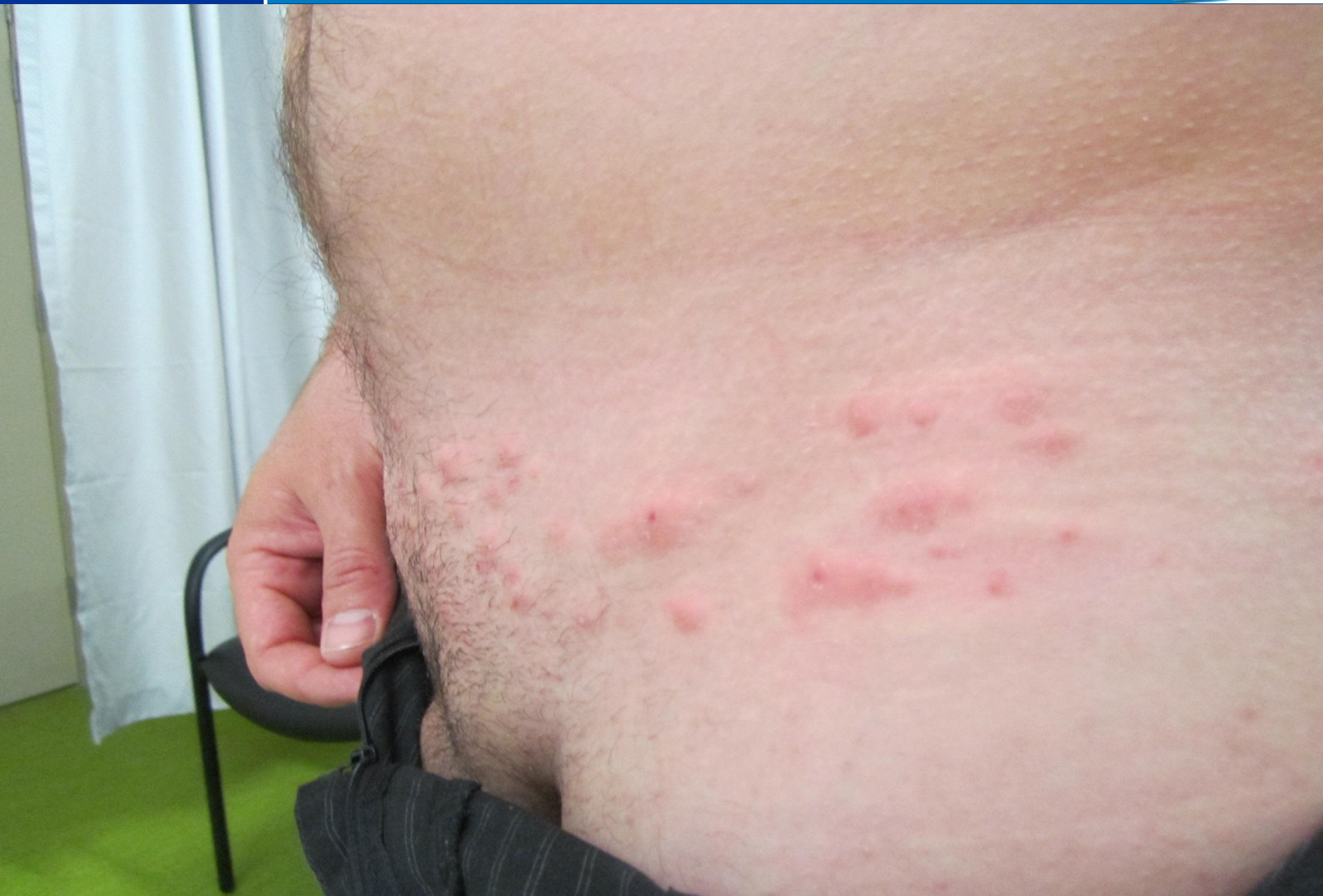
Case – LG

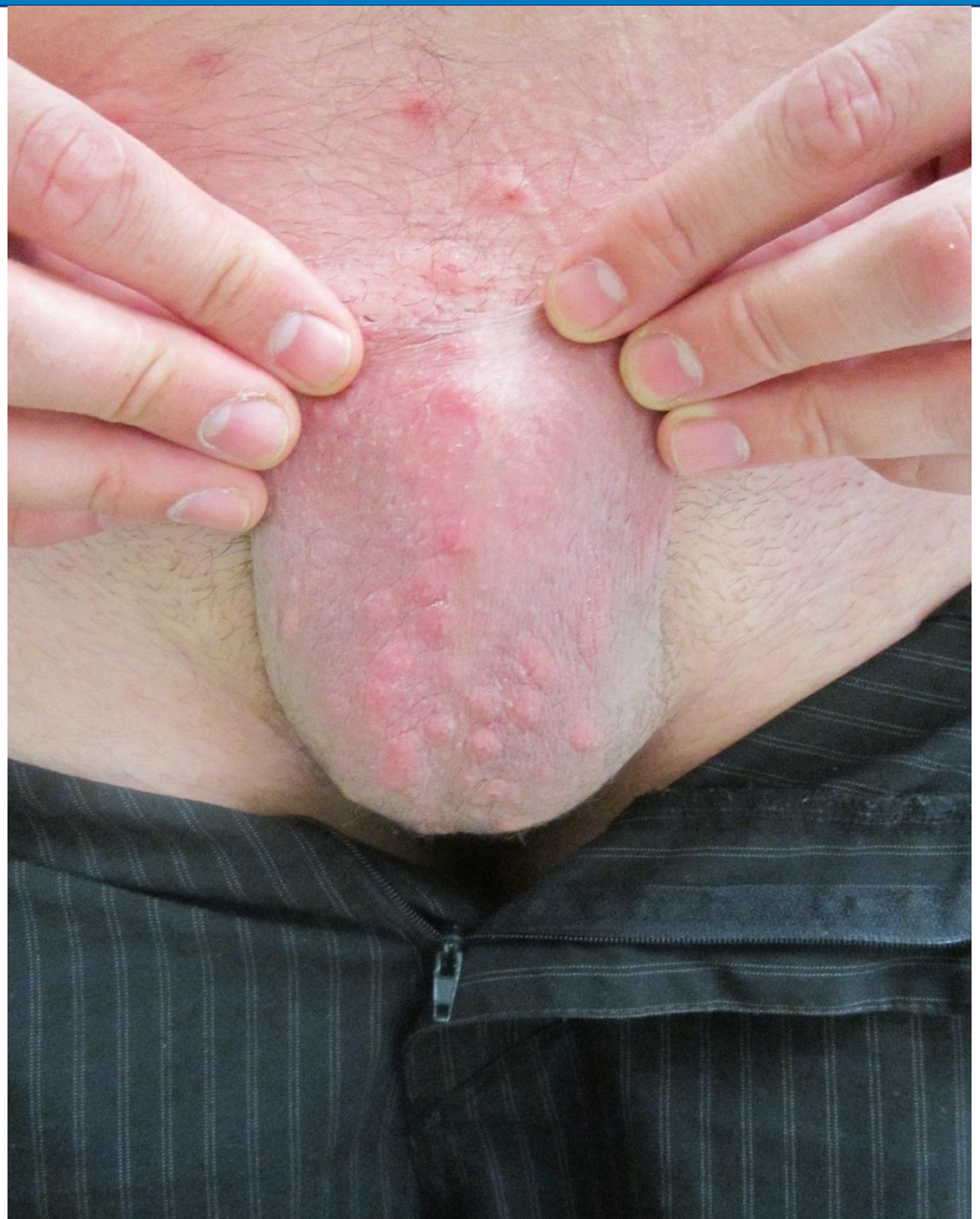
- 28 yo male from Mount Isa
- Intensely pruritic rash
- Started on right hip, spread to involve torso and genitals
- No improvement with 1% hydrocortisone cream, Lyclear or antihistamines
- Referred for Telederm consult on day 10

Additional History

- Rash started 24 hours after taking dog for swim in Lake Moondarra -> pt groomed dog immediately after
- PMHx – nil
- Medications – nil regular
- Works in mines and attends TAFE
  - In weeks prior to rash had only been at TAFE (classroom work)







Possible diagnoses

- ? Scabies
- ? Urticarial arthropod bite reaction (eg. animal mites (Cheyletiellosis))

But… what about Lake Moondarra?

Lake Moondarra

- Artificial dam off the Leichhardt River
- 16 km downstream from Mount Isa
- Home to many ducks
  - Pacific Black Duck, White-eyed Duck, and Plumed Whistling Duck
  - Source: www.eremaea.com
- Known by locals to have "duck lice"!

Duck itch

- Aka "duck cercariasis", "swimmer's itch"
- Inflammatory skin reaction due to exposure to cercariae (parasitic worms of trematodes)
  - Caused by host immune response leading to destruction of parasites entrapped in skin
- Leads to intense pruritus
  - Repeatedly sensitized persons can develop fever, lymphadenopathy, oedema
- Rash usually resolves in one week

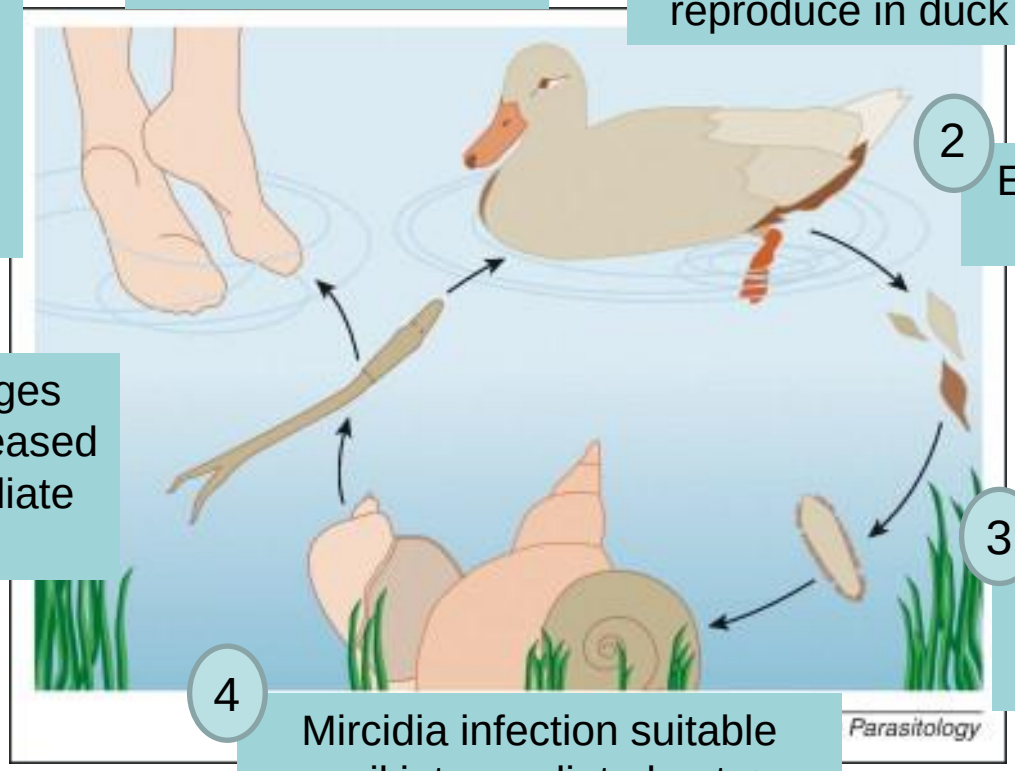
Source: Soldanova et al. Trends Parasitol. 2013

Life cycle of duck schistosome

6 Cercariae infect final hosts (duck)

1 Adult trematodes reproduce in duck

Duck itch occurs when cercariae accidentally penetrate human skin, where they die immediately



2 Eggs released into water

5 2nd larval stages (cercariae) released from intermediate host

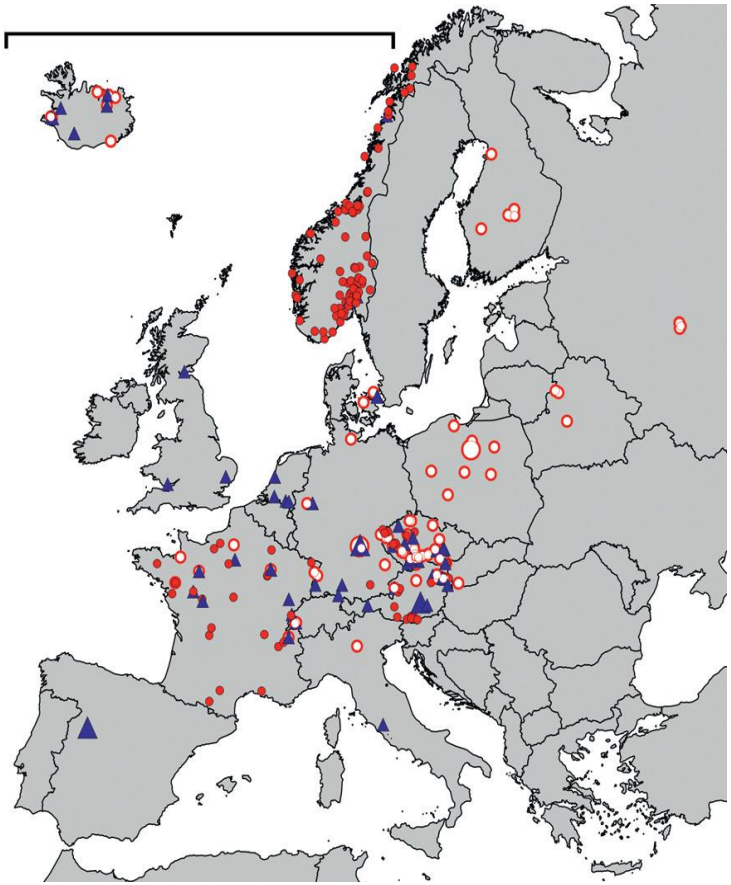
3 1st larval stages (miracidia) hatch from eggs

4 Mircidia infection suitable snail intermediate host -> asexual reproduction

Source: Soldanova et al. Trends Parasitol. 2013

Duck itch in Australia?

- No cases reported in the literature
- Most reported cases from Europe
  - Infection rates increase in summer months
  - Increased exposure -> increased disease severity due to host sensitisation
  - Higher infection rates in children (spend more time in shallow water where snails/parasites accumulate)
  - Confirmation requires detection of parasite, usually in snails



Source: Soldanova et al. Trends Parasitol. 2013

Treatment recommended

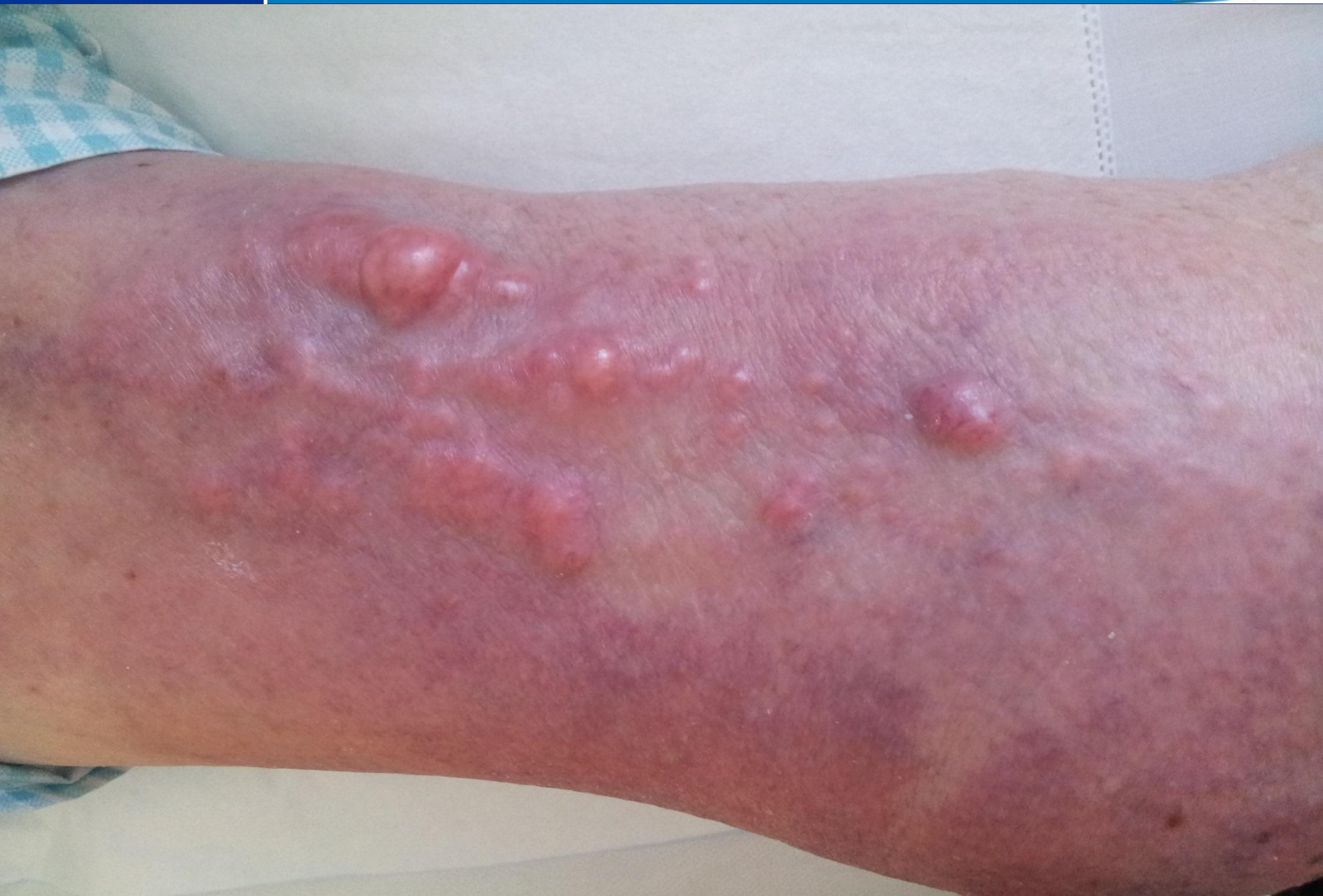
- Ivermectin 4mg stat, repeat in 1 week (to cover for scabies)
- Diprosone OV ointment bd to affected areas (due to hypersensitivity and nodules)
- 1% menthol in aqueous prn for pruritus
- Warn pt that itch may take weeks to resolve

Case - BR

- 73yo female
- Medical inpatient referred from Logan Hospital for Telederm consult
- History:
  - 4 week duration worsening erythema right thigh, "developing lumps on skin progressive in size and number"
  - Treated by GP with 7 different types of antibiotics
  - Presented to hospital due to worsening pain, started on iv lincomycin
  - Denied systemic symptoms

Additional History

- Nursing home resident
- PMHx
  - RA (dx 15 yrs prior)
  - Type II DM
  - Osteoporosis
  - NMSCs
  - Chronic urinary retention
  - Hypertension
- Medications
  - Cyclosporin
  - Prednisone
  - Hydralazine
  - Diltiazem
  - Omeprazole
  - Vit D + Calcium



Possible diagnoses

- ? B-cell Lymphoma
- ? Sarcoma
- ? Cutaneous metastases
- ? Atypical mycobacteria
- ? Deep fungal infection

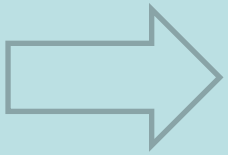
Biopsy recommended (H&E, culture)

Histopathology

- Diffuse infiltrate poorly differentiated malignant cells expanding entire deep dermis and some subcutaneous tissue
- Tumour cells medium-large size, discohesive, ample eosinophilic cytoplasm, large vesicular nucleus, prominent nucleolus
- Multinucleation and mitoses present
- Culture negative

Histopathology (cont'd)

- Special stains:
  - Positive CD138, EMA, MUM1, vimentin
  - Negative LCA, cyclin D, pax5, EBER, CD30, alk1, CD79a, CD56, melan A, S100, CKA1/3, CK8/18
  - Kappa light chain restriction



PLASMABLASTIC LYMPHOMA

Plasmablastic Lymphoma

- Rare variant of diffuse large B-cell lymphoma
- Immunoblastic morphology, plasma cell phenotype
- Aggressive nature
- Predominantly affects immunosuppressed pts
  - 70% pts HIV-positive
  - 10% pts had iatrogenic immunosuppression (most often assoc with transplant)
- Most common site of plasmablastic lymphoma is oral cavity (46% pts)

Source: Castillo et al. Leuk Lymphoma 2010

Plasmablastic Lymphoma in Skin

» 20 cases presenting in skin reported

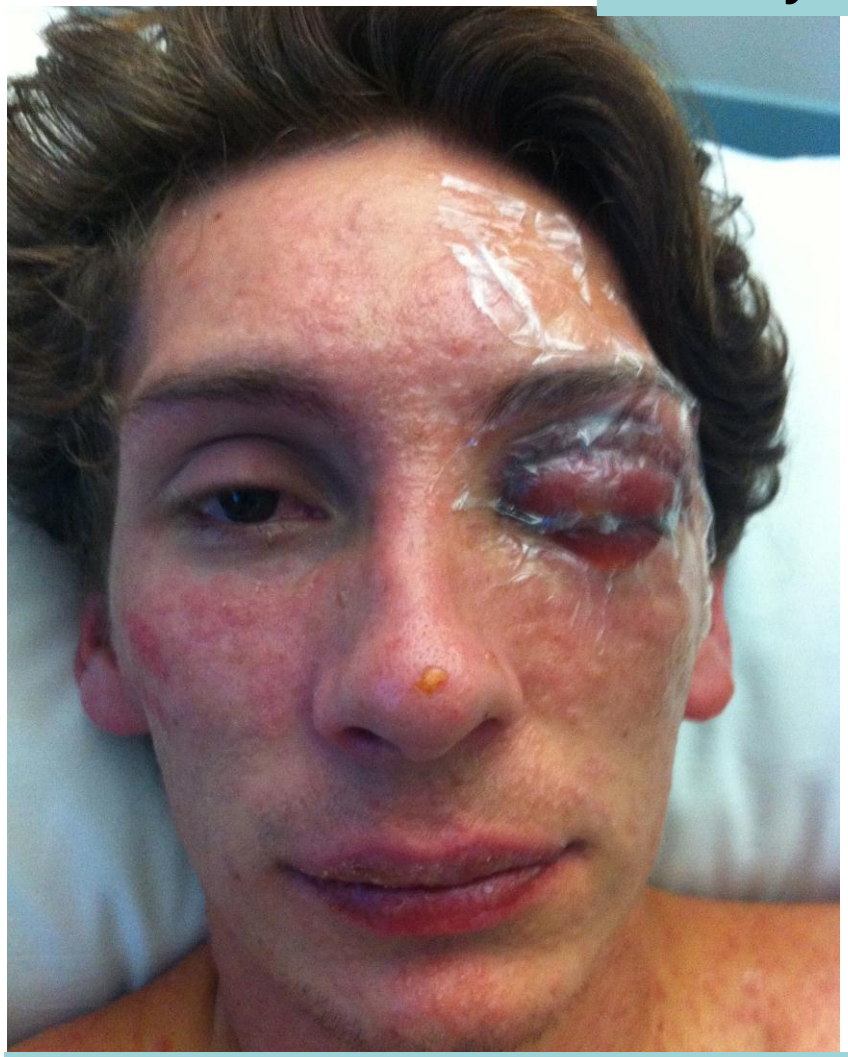
- Presented as asymptomatic single or multiple purple-red nodules
- Primary cutaneous PBL favours lower legs, often unilaterally
- Metastatic PBL more variable distribution – scalp, abdo, chest, vulva, lower limbs, disseminated
- Poor prognosis
- Treatment:
  - Withdrawal of immunosuppression in transplant patients, commencement of antiretrovirals in HIV-positive patients
  - Chemotherapy, radiotherapy, surgical excision

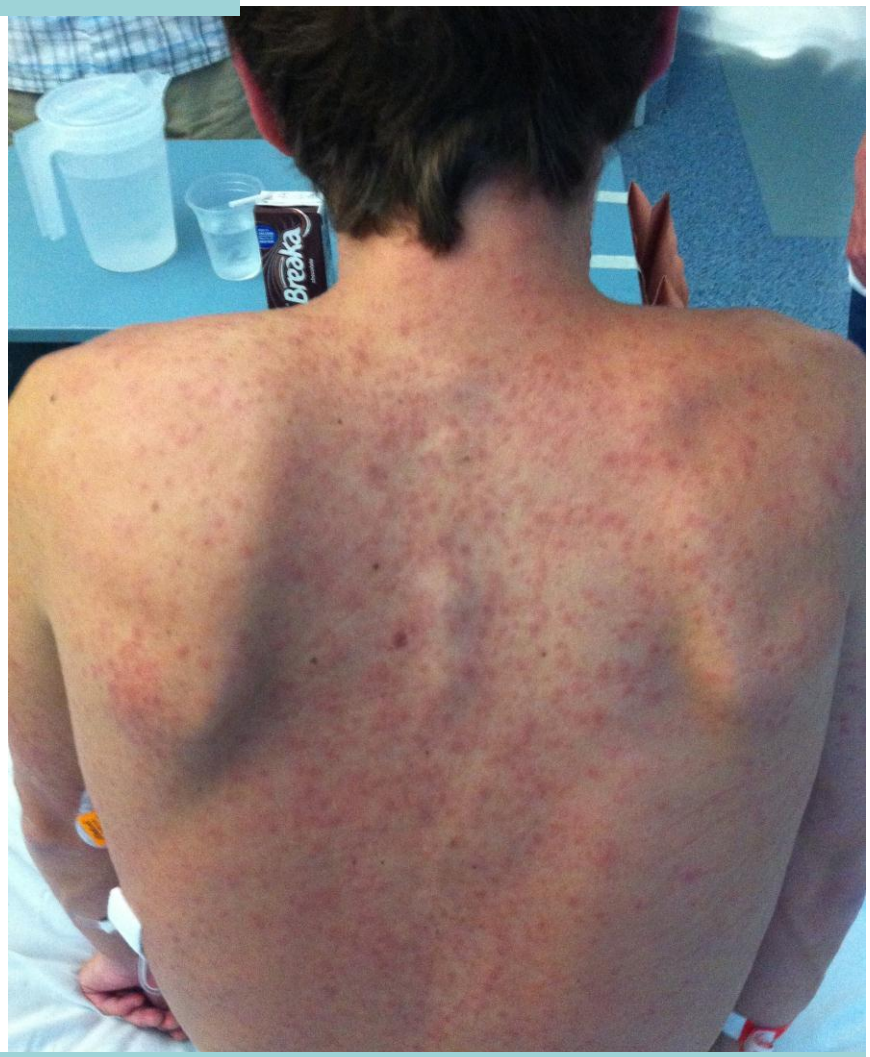
Source: Black et al. Australas J Dermatol 2012

Case - NG

- 24yo Male
- Hit in left eye with 'Uno' card -> orbital MRSA -> necrotising soft tissue infection -> extradural abscess
- On transfer to PAH -> seizure
- On admission - commenced on phenytoin and multiple Abs (including bactrim)
- Multiple OT debridements left eye
- 14 days post admission -> rash ?drug eruption
- Derm consult requested day 2 of rash

Day 2 of rash





Generalised erythematous macular eruption, starting to develop vesicles and mouth erosions, Nikolsky sign positive

Diagnosis

Stevens Johnson Syndrome

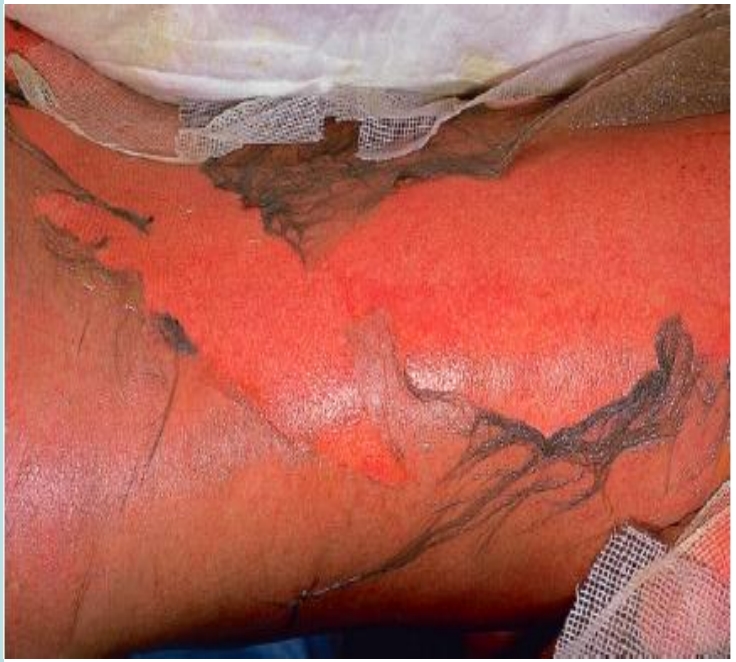
? Secondary to Bactrim or Phenytoin

Stevens Johnson Syndrome (SJS)

- Extensive EM of trunk and mucous membranes + fever, malaise, myalgia, arthralgia
- Sudden onset
- Blisters/erosions cover <10% BSA
- Untreated mortality 5-15%
  - Infection or renal impairment
- Eruption usually heals without sequelae
  - Eyes may be permanently damaged
- SJS may evolve into TEN
- Most common cause in adults is drugs
  - Esp. NSAIDs, sulphonamides, beta-lactam antibiotics, anticonvulsants, allopurinol, terbinafine

Toxic epidermal necrolysis (TEN)

- Generalised sheet-like skin erosions with purpuric macules or flat atypical target lesions
- Erosions involve >30% BSA
- Severe involvement of conjuctival, corneal, irideal, buccal, labial and genital mucous membranes
- Mortality ~25%
- Prodromal period with flu-like symptoms usually lasting 2-3 days



SJS/TEN Prognosis

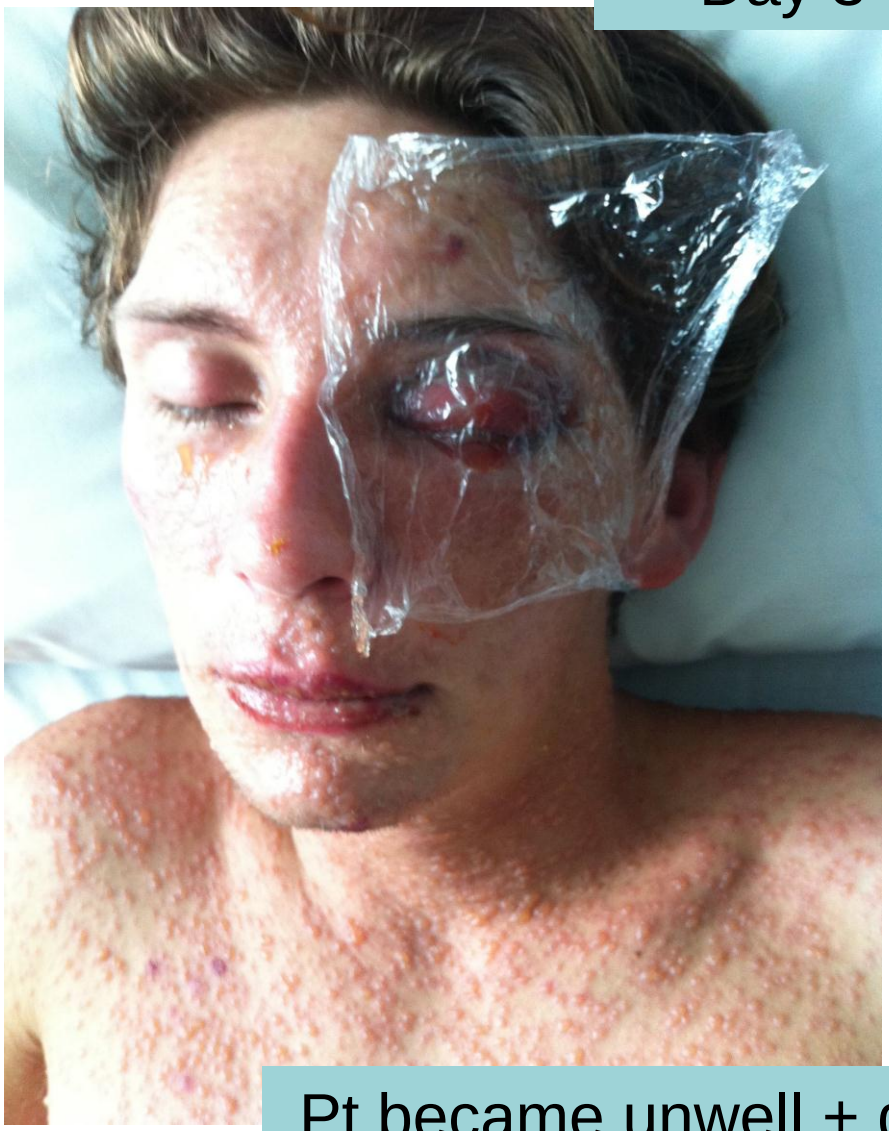
- Early withdrawal of causative drug improves prognosis
- SCORTEN Prognosis Score:
  - Parameters:
    - Age >40 yrs
    - Presence of malignancy
    - Epidermal detachment >30%
    - Heart rate >120/min
    - Bicarbonate <20mmol/L
    - Urea >10mmol/L
    - Glycaemia >14mmol/L
  - Worst recorded value in 24h after admission
  - 1 point for each parameter; SCORTEN derived by totaling scores

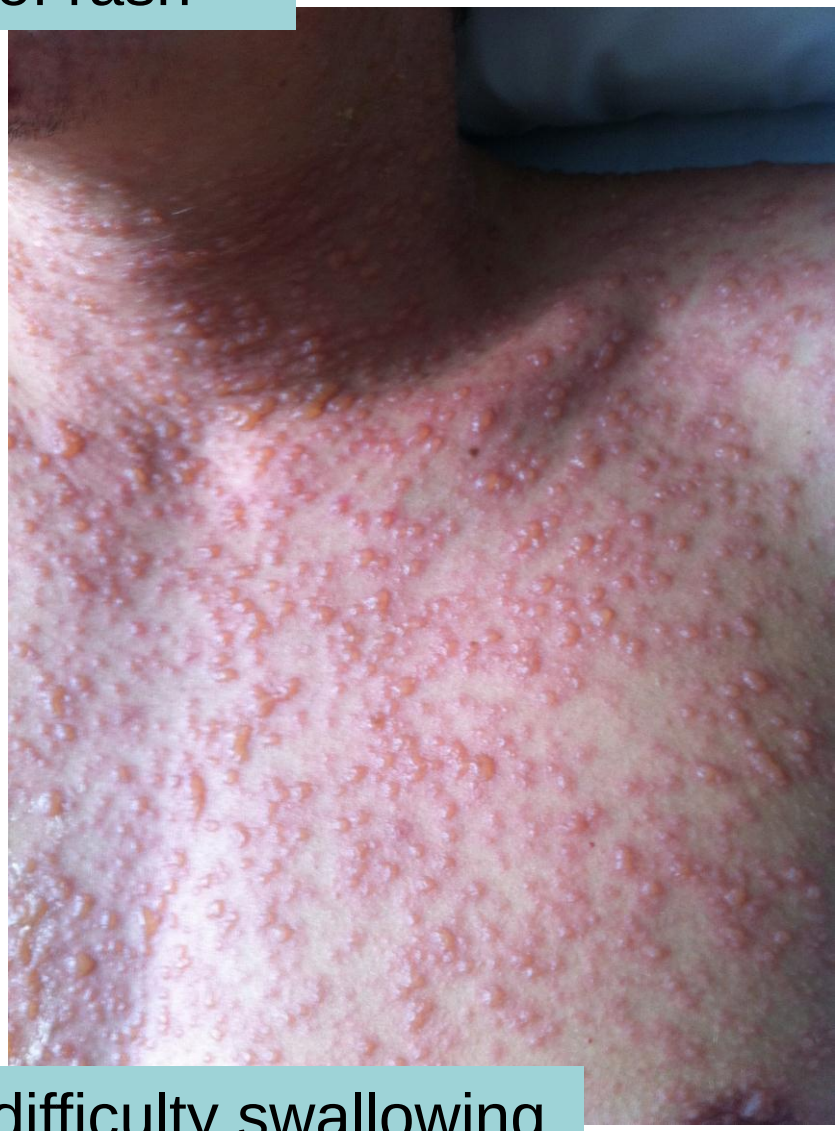
SCORTEN	Probability of death (%)
0-1	3
2	12
3	35
4	58
≥5	90

Our patient's progress…

- Day 2 of rash:
  - Bactrim and phenytoin ceased
  - Admitted to Burns Unit at RBWH
  - Topical treatment: emollient qid
  - Urgent Ophthal review: regular lubricating eye drops q2h
  - Oral cares: chlorhexidine mouthwash qid, oral lignocaine qid, NGT considered

Day 3 of rash



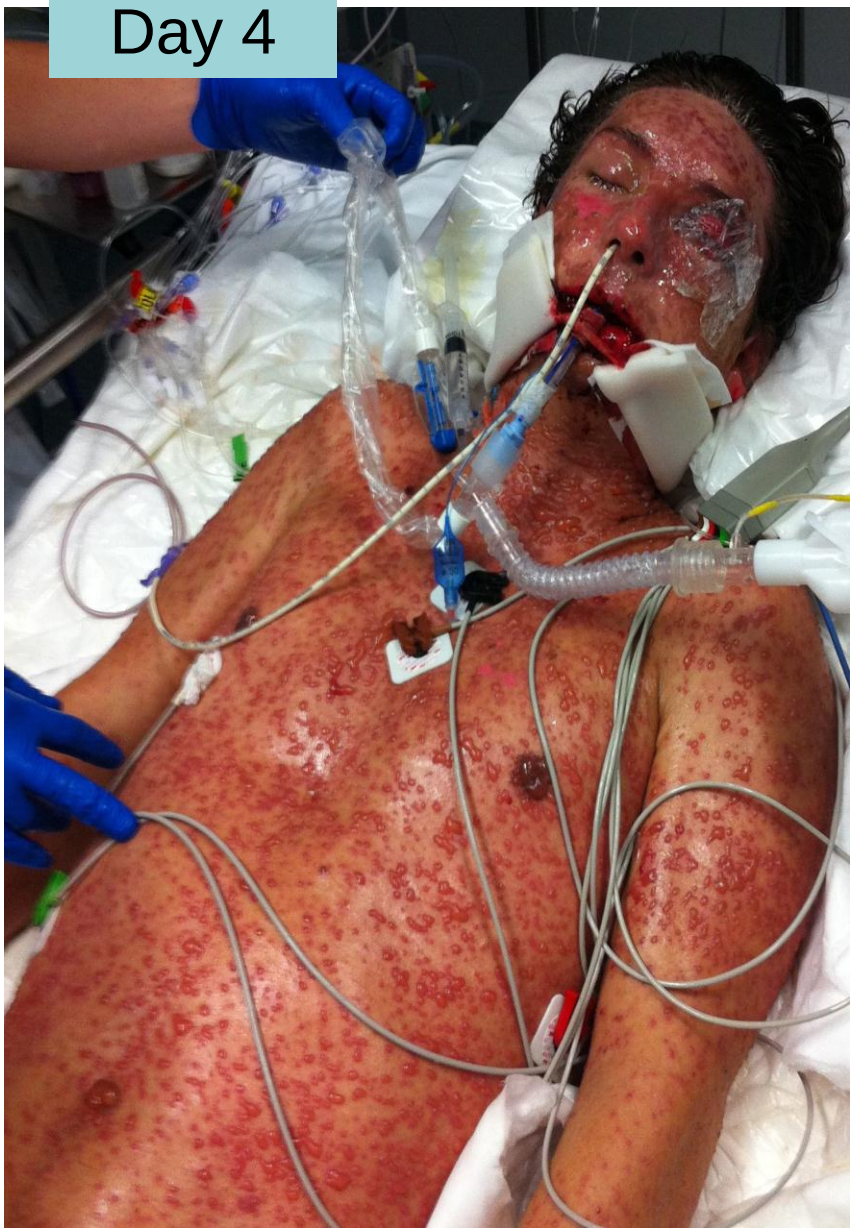


Pt became unwell + difficulty swallowing

Our patient's progress…

- Day 3 of rash:
  - Admitted to ICU
  - Intubated
  - Intensive topical treatment
    - Avoid sulfasalazine dressings!
  - Started on IvIg 2g/kg (given over 2 days)

Day 4



Day 5

Our patient's progress…

- Clinically, rash did not progress after day 5
- Discharged from ICU day 7
- Skin re-epithelialized by day 14
- Discharged from RBWH day 16
  - No residual scarring
  - No ocular deficit
    - Aside from loss of function of levator m. left eye (sacrificed during debridement)
- Never to have sulphonamides or phenytoin again!

The NEW ENGLAND JOURNAL of MEDICINE

ORIGINAL ARTICLE

Carbamazepine-Induced Toxic Effects and HLA-B*1502 Screening in Taiwan

Pei Chen, Ph.D., Juei-Jueng Lin, M.D., Chin-Song Lu, M.D., Cheung-Ter Ong, M.D., Peiyuan F. Hsieh, M.D., Chih-Chao Yang, M.D., Chih-Ta Tai, M.D., Shey-Lin Wu, M.D., Cheng-Hsien Lu, M.D., Yung-Chu Hsu, M.D., Hsiang-Yu Yu, M.D., Long-Sun Ro, M.D., Chung-Ta Lu, M.D., Chun-Che Chu, M.D., Jing-Jane Tsai, M.D., Yu-Hsiang Su, M.D., Sheng-Hsing Lan, M.D., Sheng-Feng Sung, M.D., Shu-Yi Lin, M.S., Hui-Ping Chuang, B.S., Li-Chen Huang, B.S., Ying-Ju Chen, M.S., Pei-Joung Tsai, M.S., Hung-Ting Liao, M.S., Yu-Hsuan Lin, M.S., Chien-Hsiun Chen, Ph.D., Wen-Hung Chung, M.D., Ph.D., Shuen-Iu Hung, Ph.D., Jer-Yuarn Wu, Ph.D., Chi-Feng Chang, Ph.D., Luke Chen, Ph.D., Yuan-Tsong Chen, M.D., Ph.D., and Chen-Yang Shen, Ph.D. for the Taiwan SJS Consortium

N Engl J Med 2011; 364:1126-1133 | March 24, 2011 | DOI: 10.1056/NEJMoa1009717

Abstract | Article | References | Citing Articles (87) | Letters

BACKGROUND

Carbamazepine, an anticonvulsant and a mood-stabilizing drug, is the main cause of the Stevens–Johnson syndrome (SJS) and its related disease, toxic epidermal necrolysis (TEN), in Southeast Asian countries. Carbamazepine-induced SJS–TEN is strongly associated with the HLA-B*1502 allele. We sought to prevent carbamazepine-induced SJS–TEN by using HLA-B*1502 screening to prospectively

MEDIA IN THIS ARTICLE

FIGURE 1

The NEW ENGLAND JOURNAL of MEDICINE

ORIGINAL ARTICLE

HLA-A*3101 and Carbamazepine-Induced Hypersensitivity Reactions in Europeans

Mark McCormack, B.A., Ana Alfirevic, M.D., Ph.D., Stephane Bourgeois, Ph.D., John J. Farrell, M.S., Dalia Kasperavičiūtė, Ph.D., Mary Carrington, Ph.D., Graeme J. Sills, Ph.D., Tony Marson, M.B., Ch.B., M.D., Xiaoming Jia, M.Eng., Paul I.W. de Bakker, Ph.D., Krishna Chinthapalli, M.B., B.S., Mariam Molokhia, M.B., Ch.B., Ph.D., Michael R. Johnson, D.Phil., Gerard D. O'Connor, M.R.C.P.I., Elijah Chaila, M.R.C.P.I., Saud Alhusaini, M.B., Kevin V. Shianna, Ph.D., Rodney A. Radtke, M.D., Erin L. Heinzen, Ph.D., Nicole Walley, B.S., Massimo Pandolfo, M.D., Ph.D., Werner Pichler, M.D., B. Kevin Park, Ph.D., Chantal Depondt, M.D., Ph.D., Sanjay M. Sisodiya, M.D., Ph.D., David B. Goldstein, Ph.D., Panos Deloukas, Ph.D., Norman Delanty, B.M., Gianpiero L. Cavalleri, Ph.D., and Munir Pirmohamed, Ph.D., F.R.C.P.

N Engl J Med 2011; 364:1134-1143 | March 24, 2011 | DOI: 10.1056/NEJMoa1013297

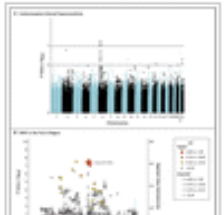
Abstract | Article | References | Citing Articles (122)

BACKGROUND

Carbamazepine causes various forms of hypersensitivity reactions, ranging from maculopapular exanthema to severe blistering reactions. The HLA-B*1502 allele has been shown to be strongly correlated with carbamazepine-induced Stevens–Johnson syndrome and toxic epidermal necrolysis (SJS–TEN) in the Han Chinese and other Asian populations but not in European populations.

MEDIA IN THIS ARTICLE

FIGURE 1




Queensland Institute of Dermatology
What We Do
Specialists
Services

Case 2 -- YL -- History

- 55 M
- 4 day history of pruritic rash over
  - Legs
  - Suprapubic area
  - Lower abdomen
  - Lower back
- Sudden onset with papules
  - Nil history of similar
  - No one else at home with similar

Case 2 – YL -- History

- Saw GP on Saturday night
  - Prescribed oral clindamycin
- Nil improvement on Monday
- Represented to GP on Monday
  - Referred to ED for further diagnosis and management

Case 2 -- YL

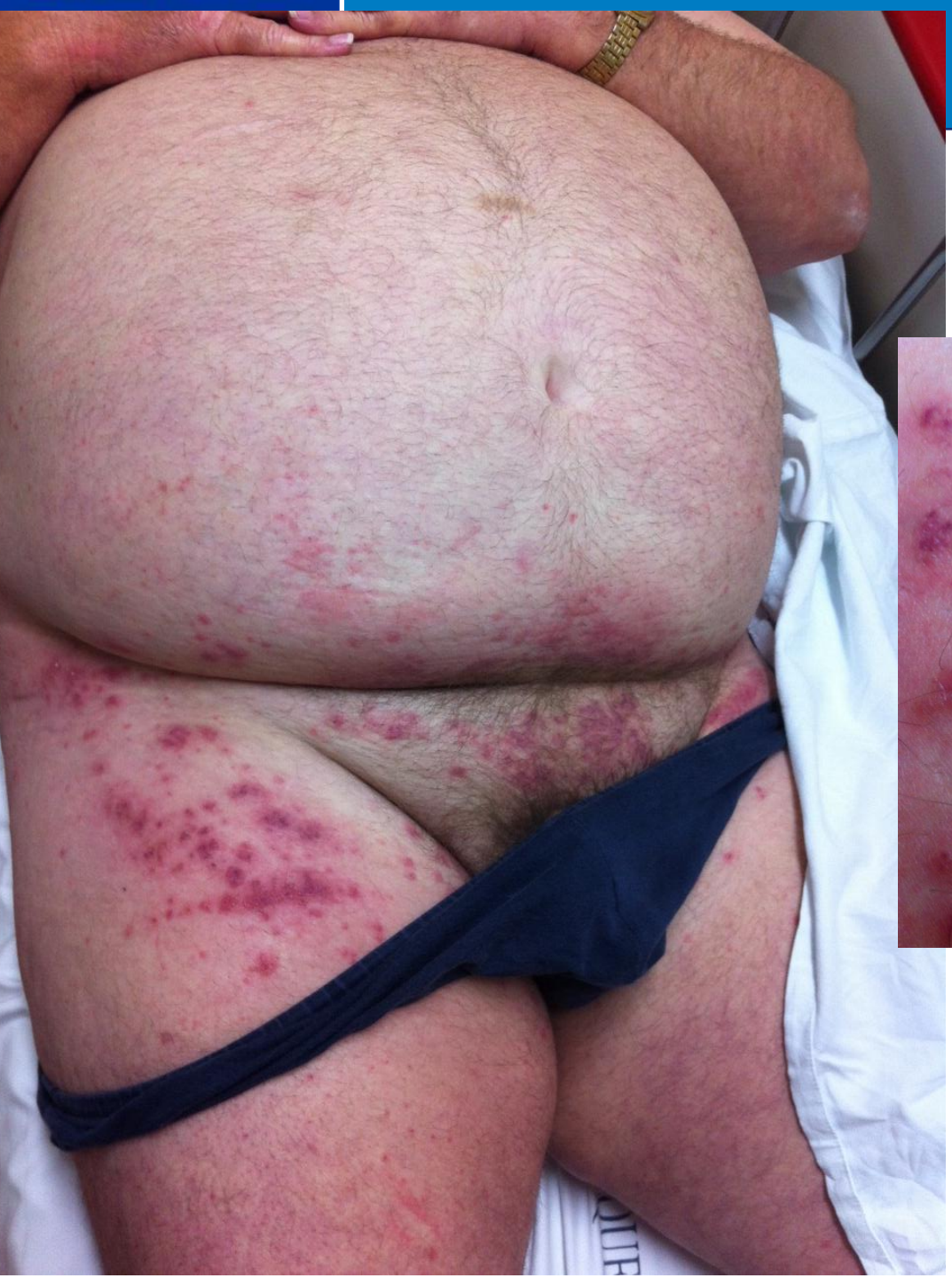
- Past Medical History
  - Hypertension; Dyslipidaemia; Type 2 DM
- Medications
  - Rosiglitazone
  - Metformin
  - Irbesartan
  - Atorvastatin
- Allergies
  - Sulfur
  - Penicillin

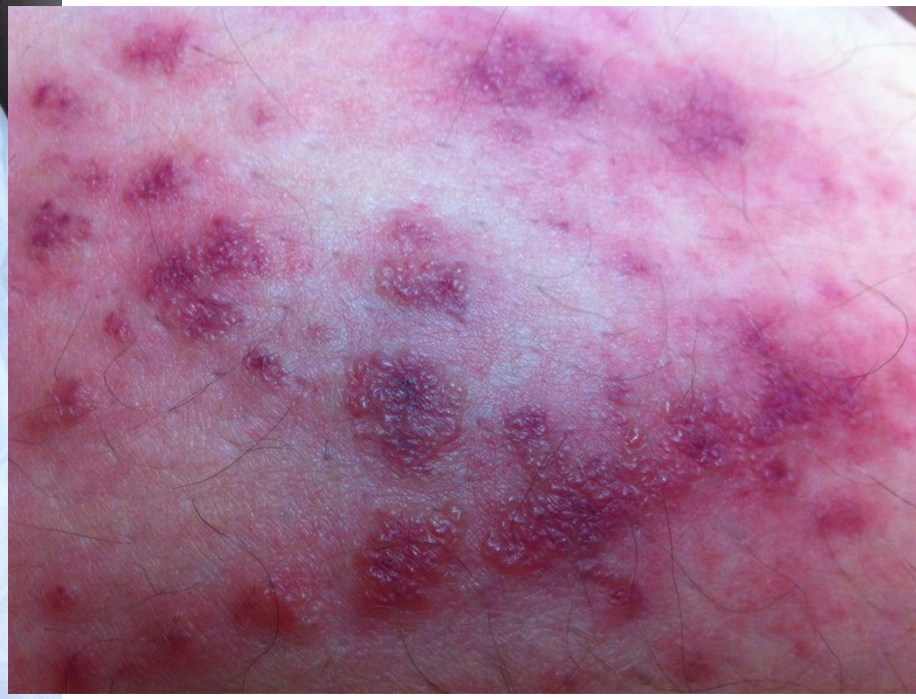
Case 2 -- YL

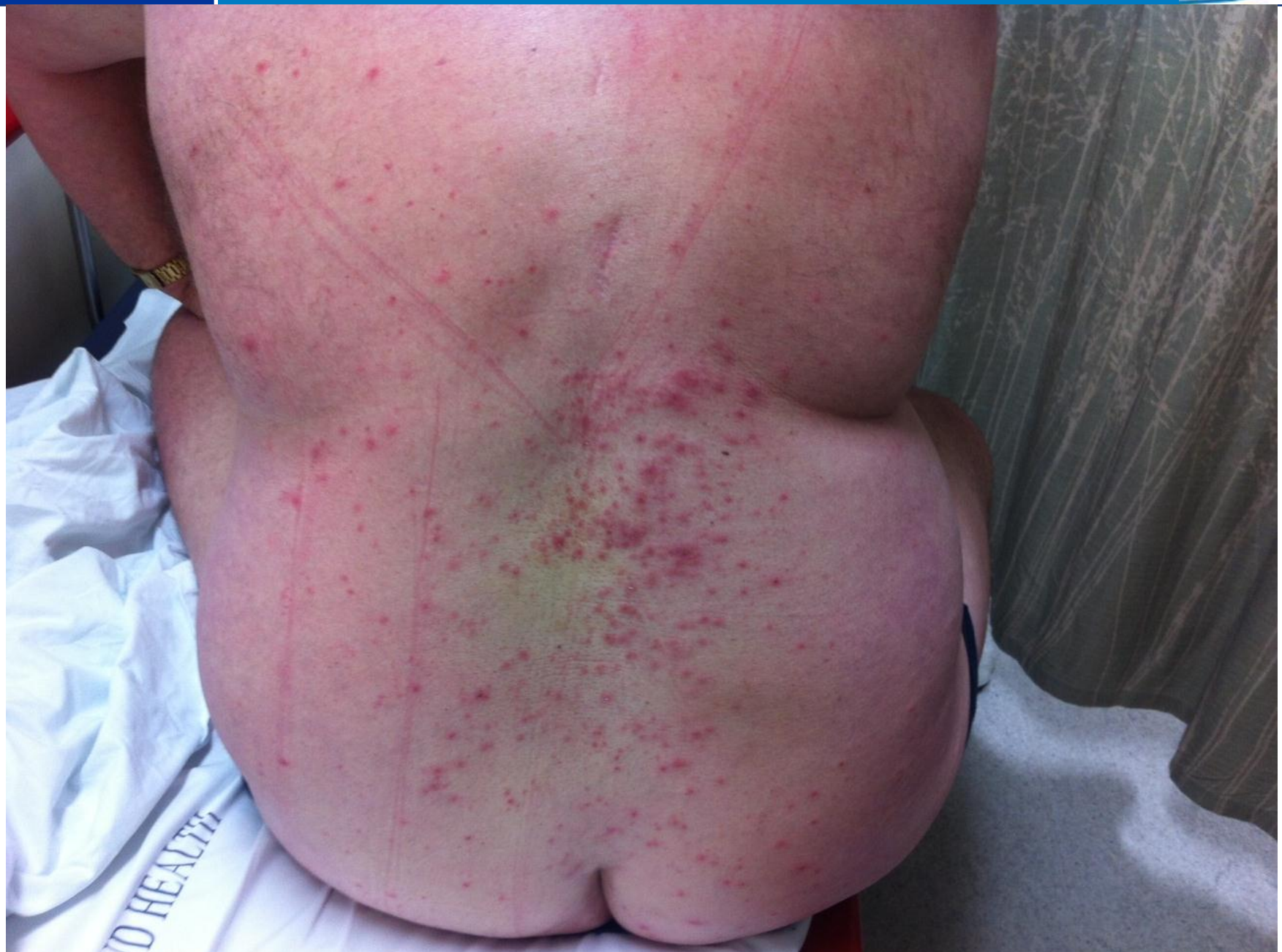
- Social History
  - Main Roads laborer
  - In and out of Ute
  - Nil exposure to animals
  - Nil recent travel
- Referred to teledermatology with a diagnosis of
  - ? miliaria vs other diagnosis

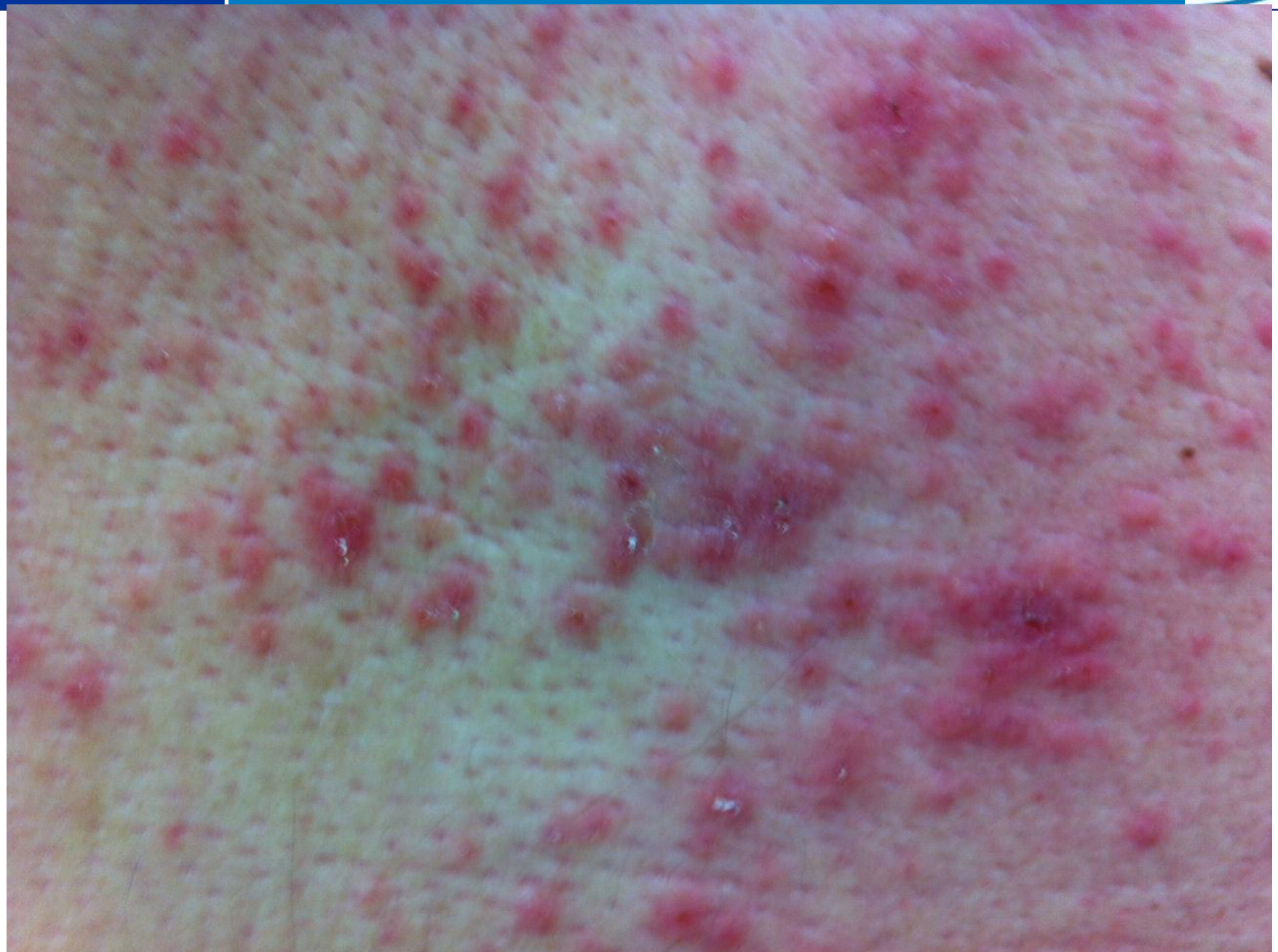
Teledermatology Examination

- Rash (as described on referral form)
  - Anterior, posterior and inner thighs
  - Suprapubic
  - Lower abdomen and mid back
  - Clusters of pustules on erythematous base
  - Some isolated scattered pustules ever trunk
  - Ooze from some deroofed pustules









Assessment

- Differentials
  - Bullous dermatitis from
    - Arthropod bite
    - Allergic contact dermatitis
  - Need to exclude
    - Viral infection
- Recommendations
  - Viral swab for HSV1/2; VZV
  - Bacterial swab
  - Punch biopsy of vesicular lesion
  - Topical diprosone
  - Routine bloods- FBC, E/LFTs, ANA

Histopathology

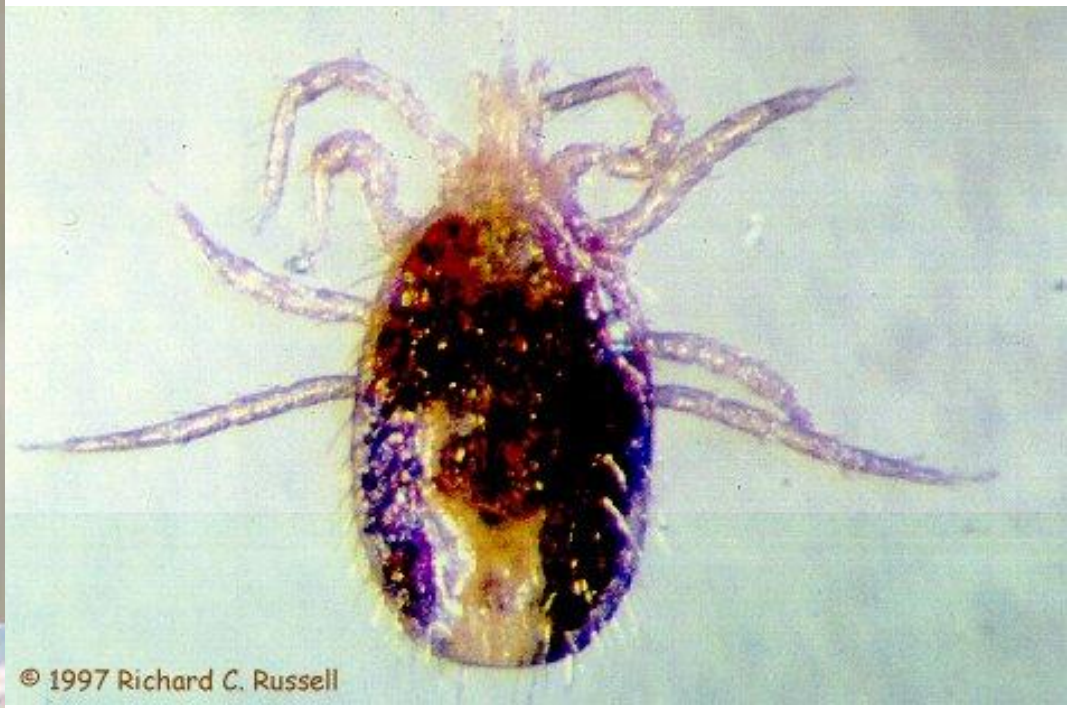
- Intra and subepidermal vesiculation
- Superficial and deep perivascular and interstitial inflammatory infiltrate with
  - Eosinophils
  - Lymphocytes
- *Most consistent with*
  - **Bullous insect bite**
- Histopathology DDx
  - Bullous pemphigoid
  - Severe contact dermatitis

Outpatient Review

- Marked improvement with topical diprosone
- Further targeted history
  - No pets at home but…
  - Feeds wild Lorikeets and cleaned out their feeding tray on the Saturday before the rash

Cheyletiellosis?

Trombidiasis?



Trombiculidae

The Trombiculidae are a family of mites. In their larval stage, those species which bite their host and "causes intense irritation" or "a wheal, usually with severe itching and dermatitis," are called chiggers. Wikipedia

Case 3 -- YL

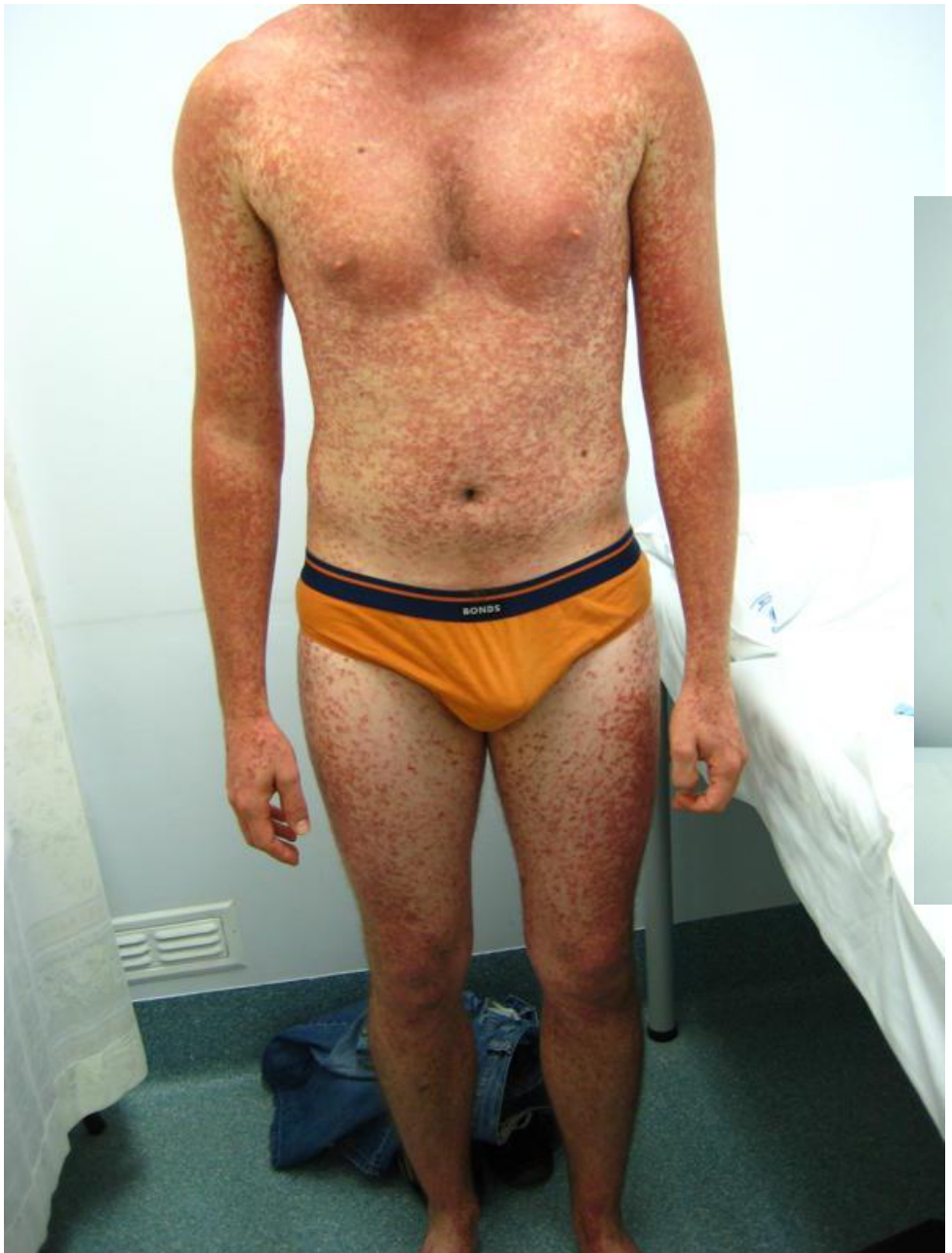
- 33 year old male
- Referred by local doctor to Queensland Institute of Dermatology
- 13 year history of erythematous eruption
  - Started on the neck and gradually become generalised

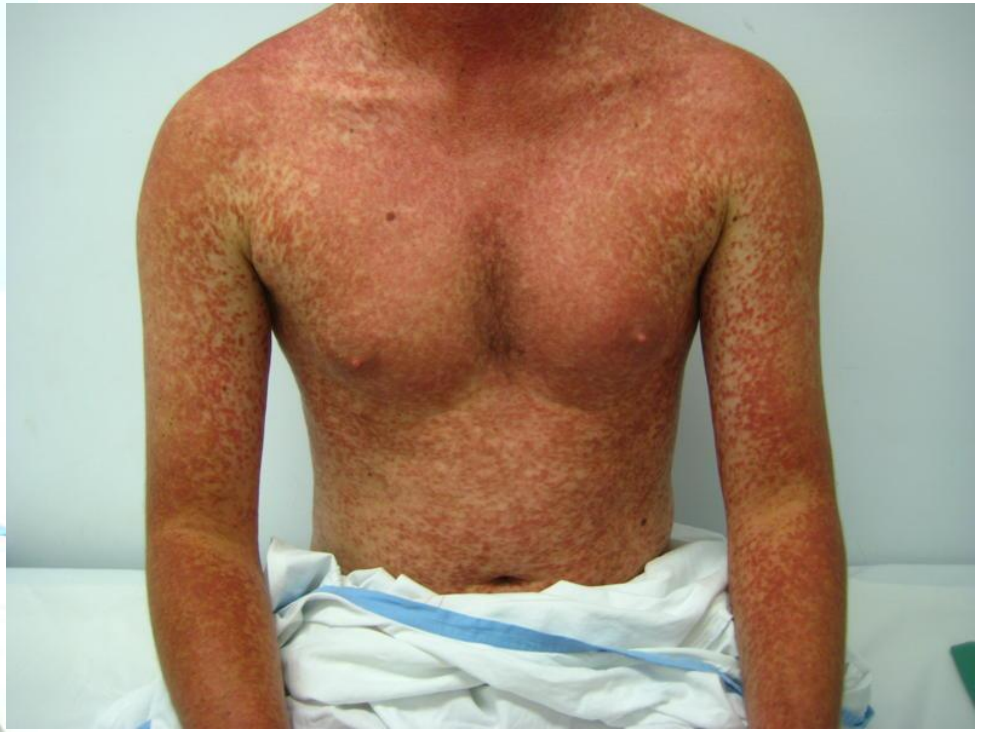
Symptoms

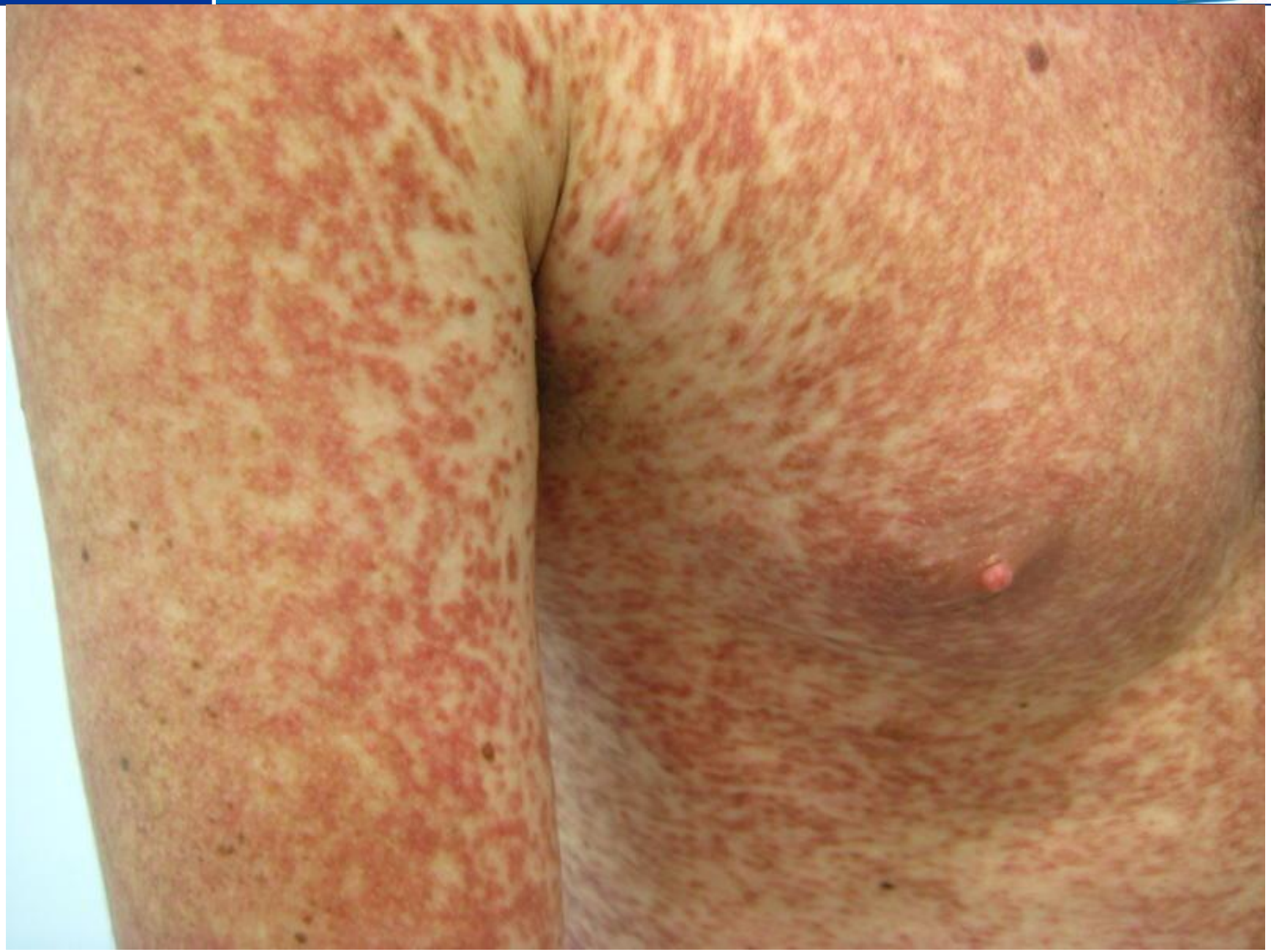
- Pruritus - heat and exercise-induced
- Cardiovascular symptoms
  - Palpitations / chest tightness
  - Flushing / dizziness
- Gastrointestinal symptoms
  - Abdominal discomfort
  - No nausea / diarrhoea
- Short term memory problems
- No weight loss / fever / sweats / musculoskeletal pain

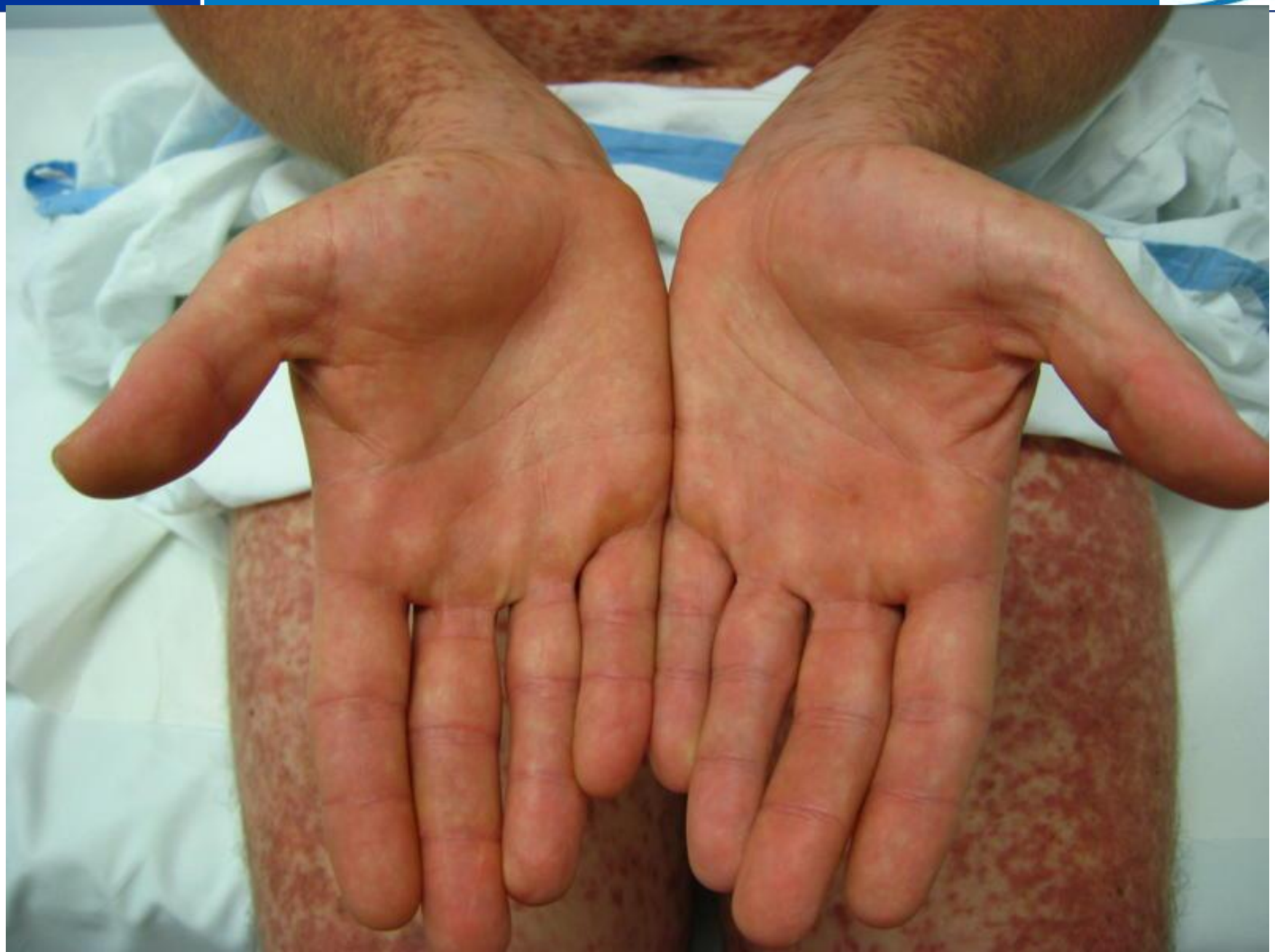
Physical Examination

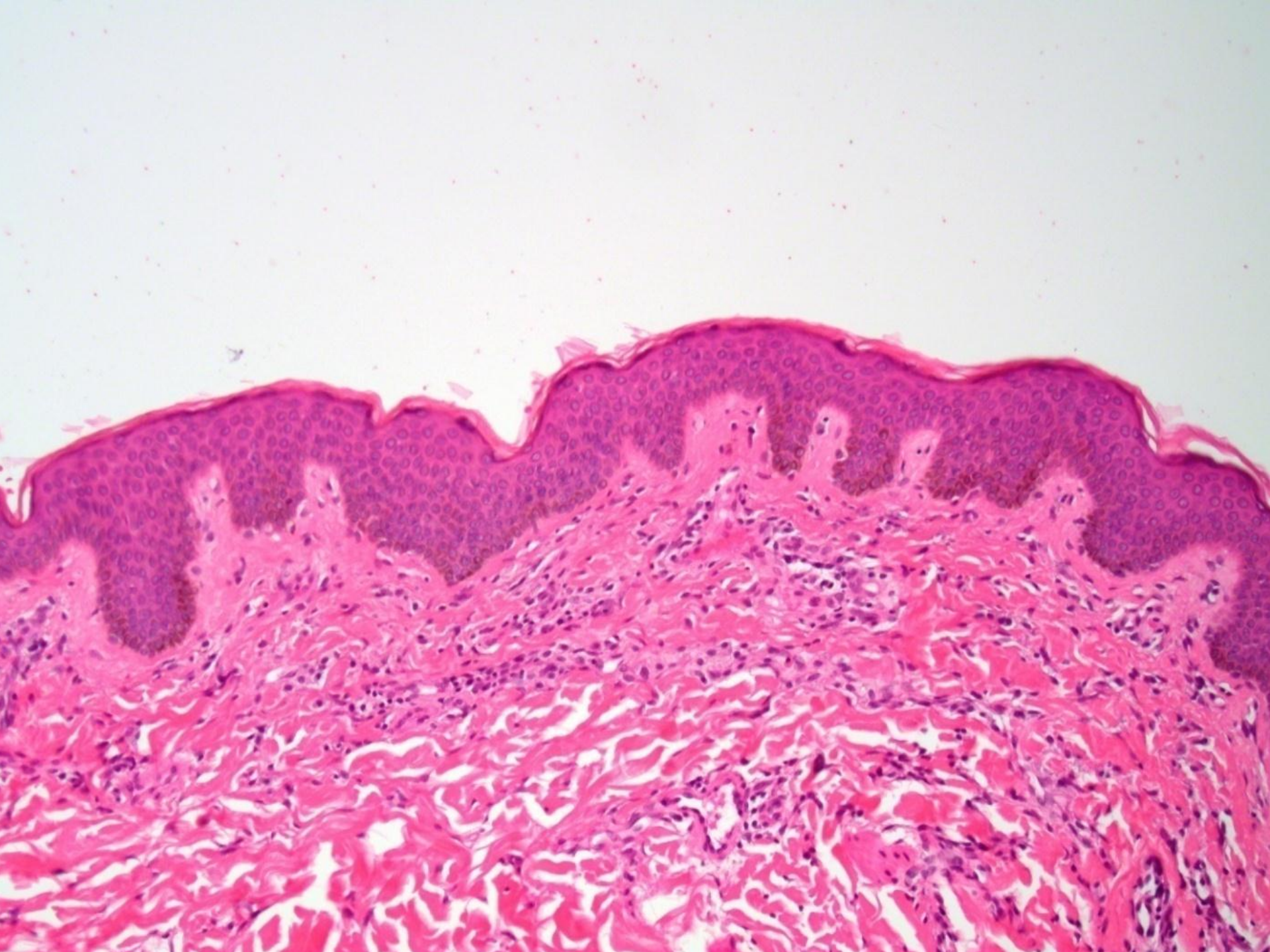
- Alert and orientated
- Generalised symmetrical red-brown confluent maculopapular eruption
- Trunk / proximal extremities >>> distal extremities / neck
- Spares face / scalp / palms / soles
- No hepatosplenomegaly
- No lymphadenopathy

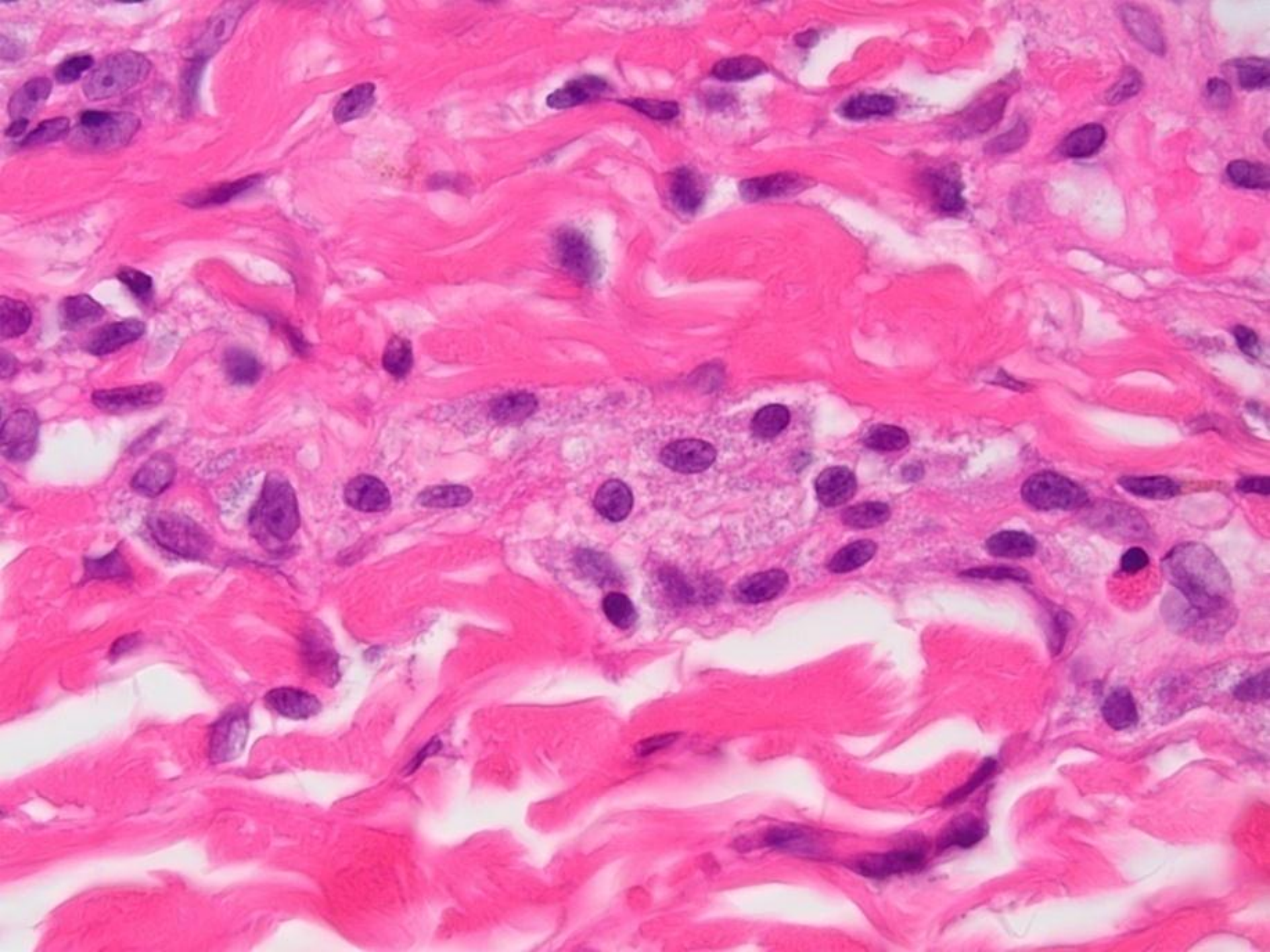

BONDS

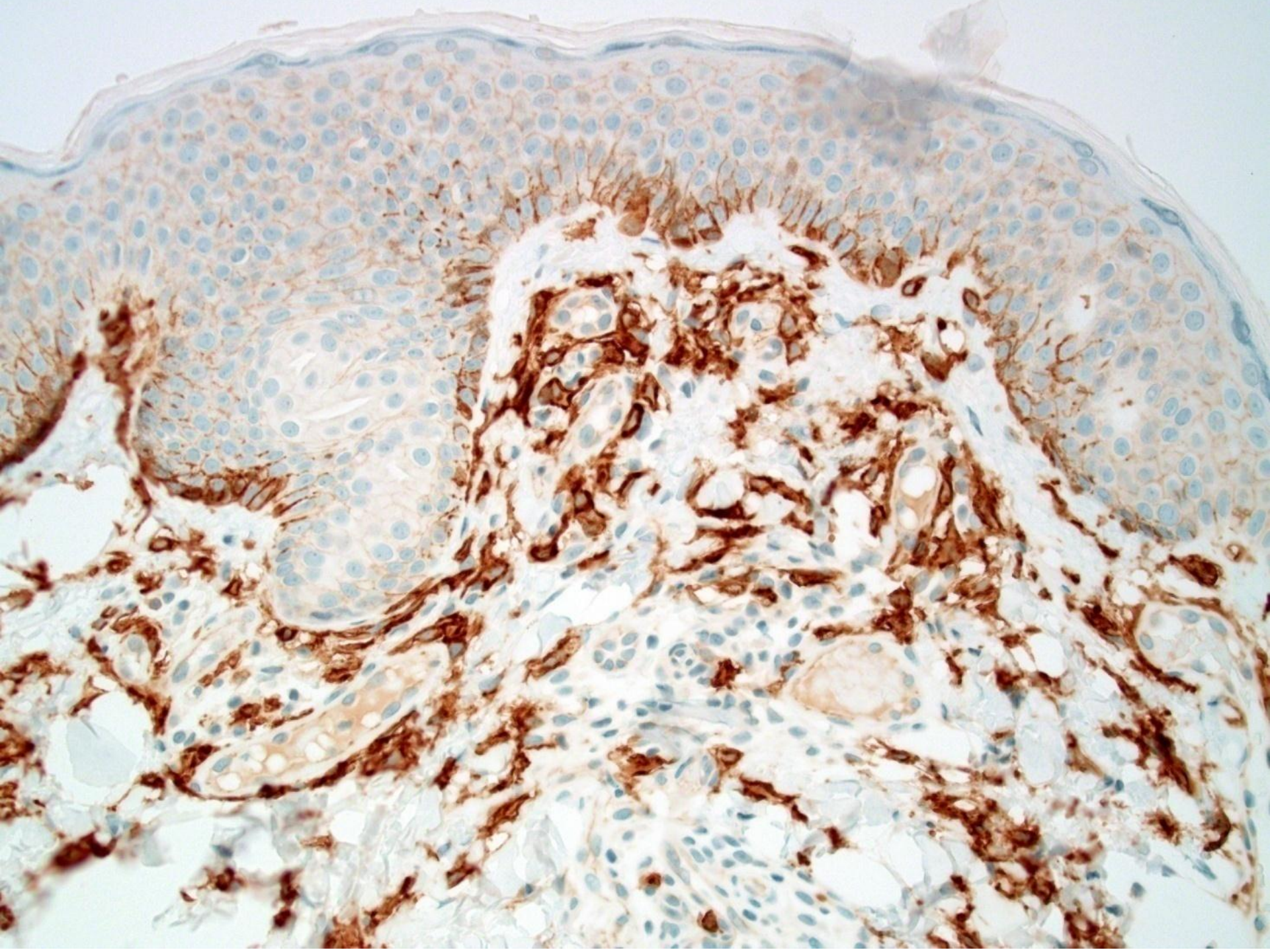


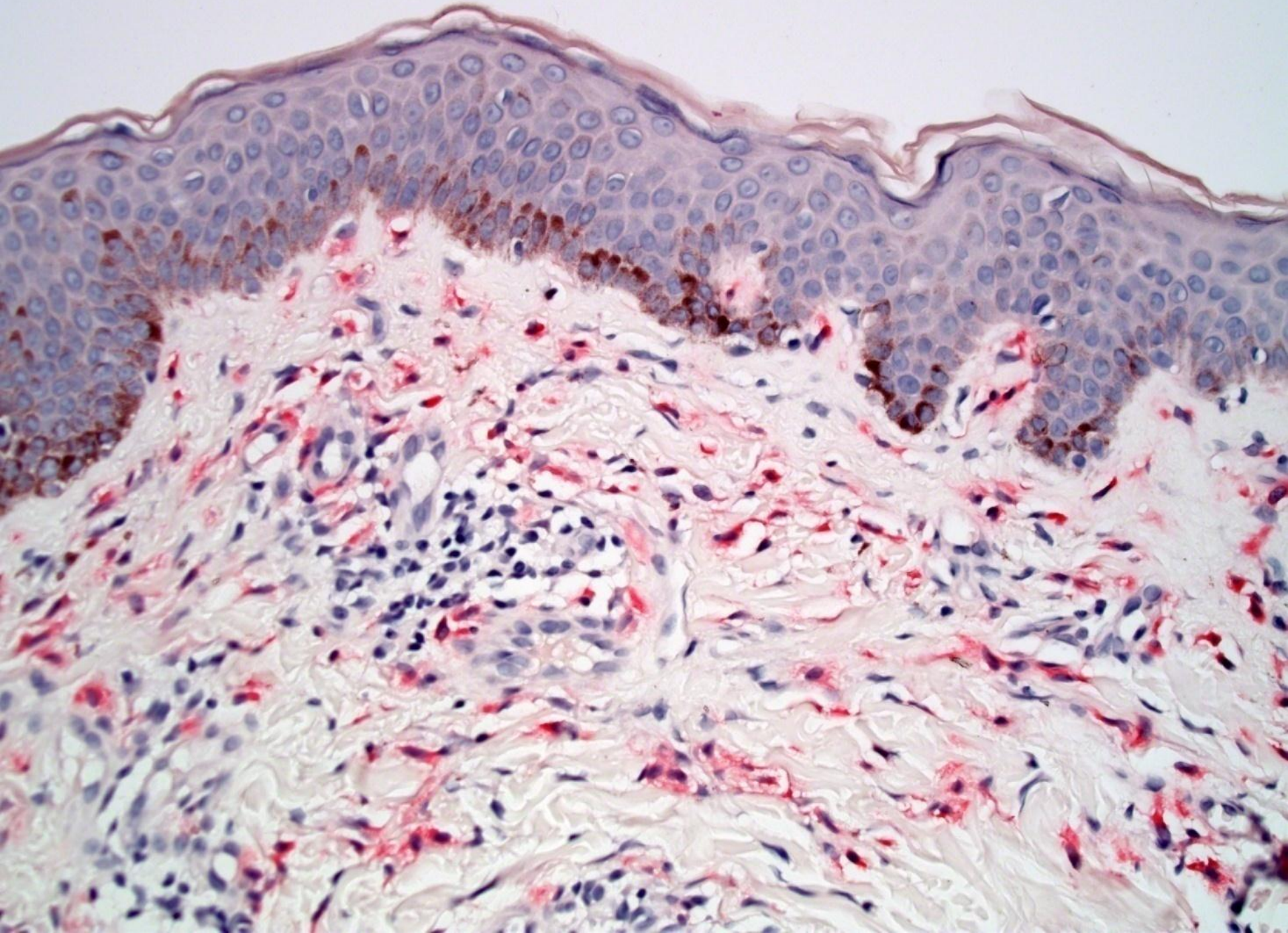












Investigations

• FBC	Normal
• EUC / LFT	Normal
• Immunoglobulins	Normal
• **Serum tryptase**	**140 ng/ml (<15ng/ml)**
• Haematology referral:	
– Flow cytometry	Normal
– Bone marrow aspirate	Normal
– **Bone marrow trephine**	**Multifocal dense infiltrates of mast cells (mostly spindle shaped)**

- Gene Analysis
  - **A2447T (D816V) mutation in exon 17 of the *KIT* gene present**

Diagnosis of Systemic Mastocytosis is based on:
1 major + 1 minor criteria
or
3 minor criteria

Major Criterion

☑ • **Multifocal dense infiltrates of mast cells (> 15 aggregating)** detected in sections of bone marrow +/- other extracutaneous organ by tryptase-immunohistochemistry or other stains

Minor Criteria

☑ • **> 25% of mast cells are spindle shaped or atypical**
(bone marrow +/- other extracutaneous organs)

☑ • ***C-kit* point mutation at codon 816**
(bone marrow / blood / other extracutaneous tissue)

☒ • ***Kit+* mast cells co-express CD2 +/- CD25**
(bone marrow / blood / other extracutaneous tissue)

☑ • **Serum total tryptase concentration persistently > 20ng/ml**

Valent P, Horny H, Escribano L, et al. 2001. Diagnostic criteria and classification of mastocytosis: a consensus proposal. *Leuk. Res.* 25: 603-25

Classification of Mastocytosis

(Adapted from World Health Organization)

Category	Diagnostic features	Prognosis
Cutaneous mastocytosis	Lack of systemic involvement Age of onset generally <2 years	Good
Indolent systemic mastocytosis	Lack of advanced categories of mastocytosis Age of onset generally >2 years Most common category in adult-onset disease	Good
Systemic mastocytosis with associated clonal hematological non–mast-cell lineage disease	Commonly associated with myelodysplastic or myeloproliferative disorders Occasionally seen with acute leukemias and lymphomas	Same as the associated non–mast-cell disorder
Aggressive systemic mastocytosis	Findings of end organ dysfunction due to mast-cell infiltration, such as: bone marrow failure liver dysfunction with ascites splenomegaly with hypersplenism skeletal osteolytes with pathologic fractures gastrointestinal involvement with malabsorption and weight loss	Poor
Mast-cell leukemia	Mast cells with high grade morphology (multilobular or multiple nuclei) >10% mast cells in peripheral blood or >20% mast cells in bone marrow aspirate smears	Poor
Mast-cell sarcoma	Malignant and destructive soft tissue tumor Mast cells with high grade morphology	Poor
Extracutaneous mastocytoma	Rare benign tumor consisting of mature mast cells	Good

Case -- SP

- 76 year old retired Belgian Plastic surgeon
- 2 week history of peristomal ulcer which is getting worse
- Working diagnosis by the surgeons is pyoderma gangrenosum- not responding to prednisolone
- Biopsy showed non specific ulceration and no malignancy

Further history

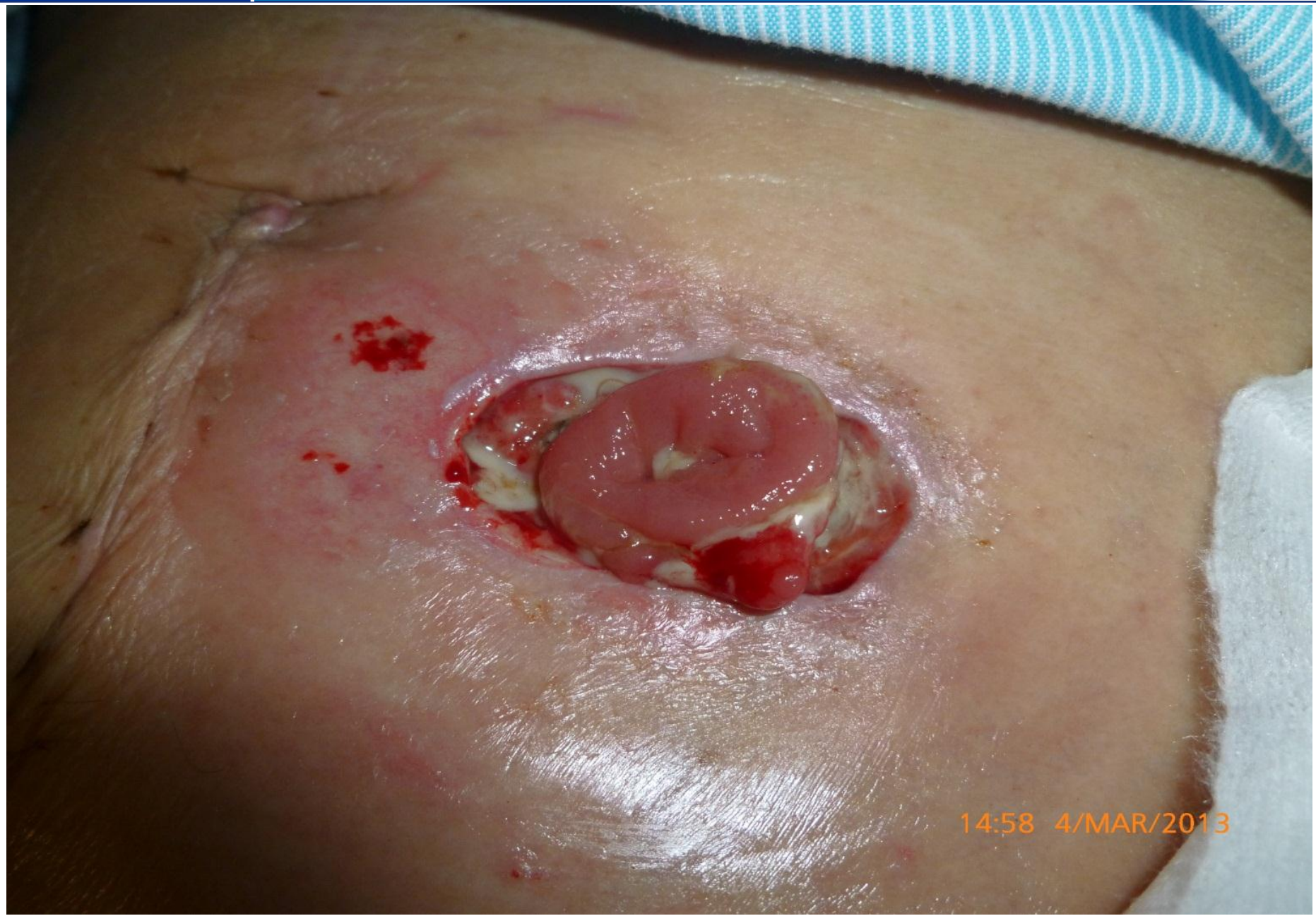
- PMH includes left illiac fossa enterocutaneous fistula- for which a stoma was constructed from sigmoid to the skin one month earlier

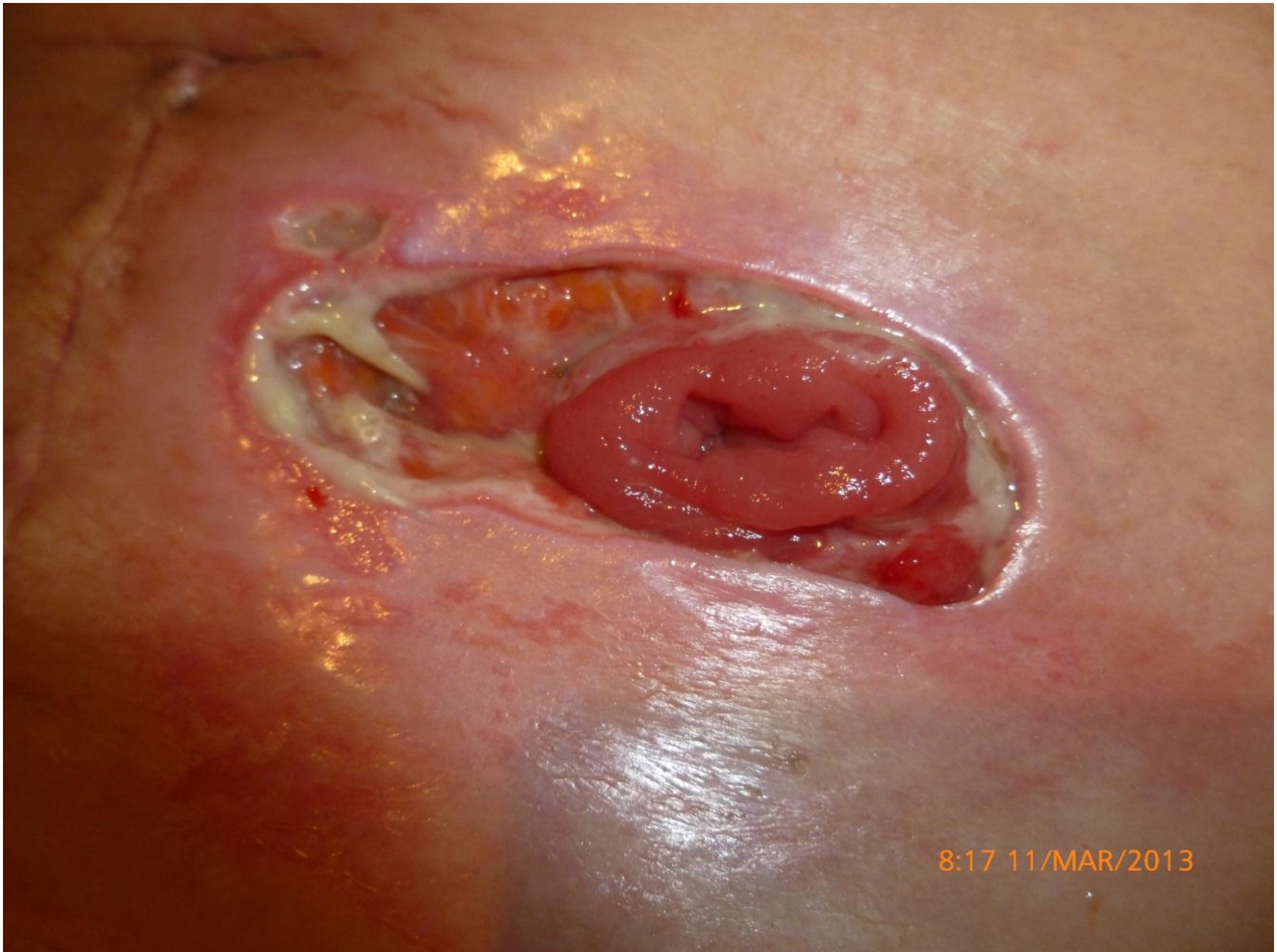
PMH

- end stage renal failure
- IHD
- peripheral vascular disease
- hypothyroidism
- CABG
- aortic valve replacement
- digital ischemia

Medications

- simvastatin, diltiazam, calcitriol, ISMN, fish oil, ivabradine, fenofibrate, esomeprazole, nicorandil, heparinoid top, augmentin df, prednisolone, clopidogrel, perhexilene, esomeprazole, vit E, folate, thyroxine, cholecalciferol


14:58 4/MAR/2013


8:17 11/MAR/2013

Show additional filters

Article types
Review
More ...

Text availability
Abstract available
Full text available

Publication dates
5 years
10 years
Custom range...

Species
Humans

Clear all

Show additional filters

Results: 6

1. A case of **nicorandil**-induced unilateral corneal **ulceration**.
   Trechot F, Batta B, Petitpain N, Bazard MC, Angioi K, Trechot P.
   Int Wound J. 2013 May 7. doi: 10.1111/iwj.12081. [Epub ahead of print]
   PMID: 23651162 [PubMed - as supplied by publisher]
   Related citations

2. **Nicorandil**-induced leg **ulceration** without mucosal involvement.
   Mikeljevic J, Highet AS.
   Clin Exp Dermatol. 2011 Jun;36(4):372-3. doi: 10.1111/j.1365-2230.2010.03932.x. Epub 2010 Sep 16.
   PMID: 21564175 [PubMed - indexed for MEDLINE]
   Related citations

3. **Nicorandil**-induced **peristomal ulceration**.
   Kidd L, Dixon C.
   Int Wound J. 2010 Dec;7(6):541. doi: 10.1111/j.1742-481X.2010.00720.x. No abstract available.
   PMID: 21073685 [PubMed - indexed for MEDLINE]
   Related citations

4. Life-threatening haemorrhage secondary to **nicorandil**-induced severe peri-anal **ulceration**.
   Mosley F, Bhasin N, Davies JB, Ausobsky JR.
   Ann R Coll Surg Engl. 2010 Sep;92(6):W39-40. doi: 10.1308/147870810X12699662981519. Epub 2010 Jul 2.
   PMID: 20615301 [PubMed - indexed for MEDLINE]
   Related citations

5. **Peristomal ulceration** caused by **nicorandil**.
   Skellett AM, Cullen P, Dootson G.
   Clin Exp Dermatol. 2009 Jan;34(1):87-8. doi: 10.1111/j.1365-2230.2008.02758.x. Review. No abstract available.
   PMID: 19076801 [PubMed - indexed for MEDLINE]
   Related citations

6. **Nicorandil**-induced **peristomal** ulcers: is **nicorandil** also associated with gastrointestinal fistula formation?
   Ogden S, Mukasa Y, Lyon CC, Coulson IH.
   Br J Dermatol. 2007 Mar;156(3):608-9. No abstract available.
   PMID: 17300271 [PubMed - indexed for MEDLINE]
   Related citations

Filters: Manage Filters

Find related data
Database: Select
Find items

Search details
peristomal[All Fields] AND ("ulcer"[MeSH Terms] OR "ulcer"[All Fields] OR "ulceration"[All Fields]) AND
Search
See more...

Recent activity
Turn Off Clear
peristomal ulceration nicorandil (6) PubMed
See more...

Outcome

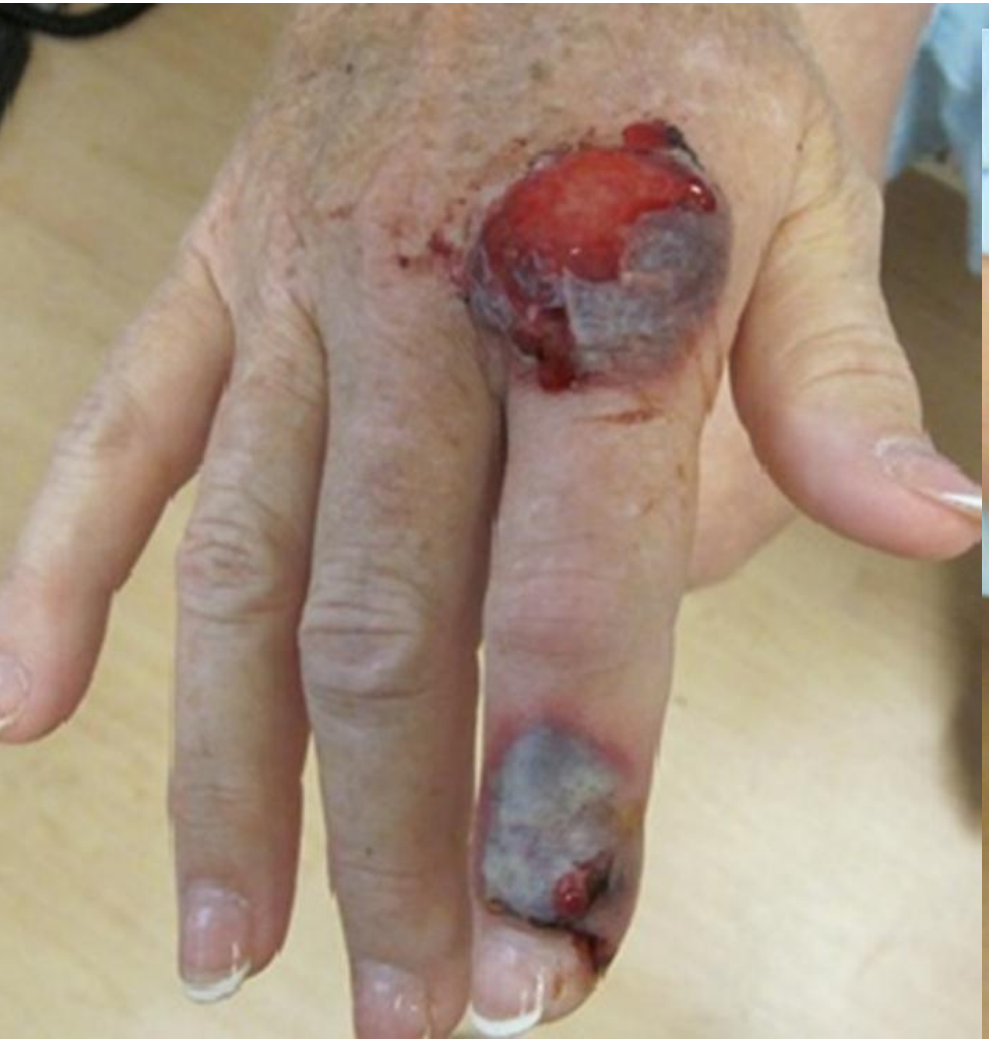
- Peristomal ulceration caused by nicorandil is well documented in the literature

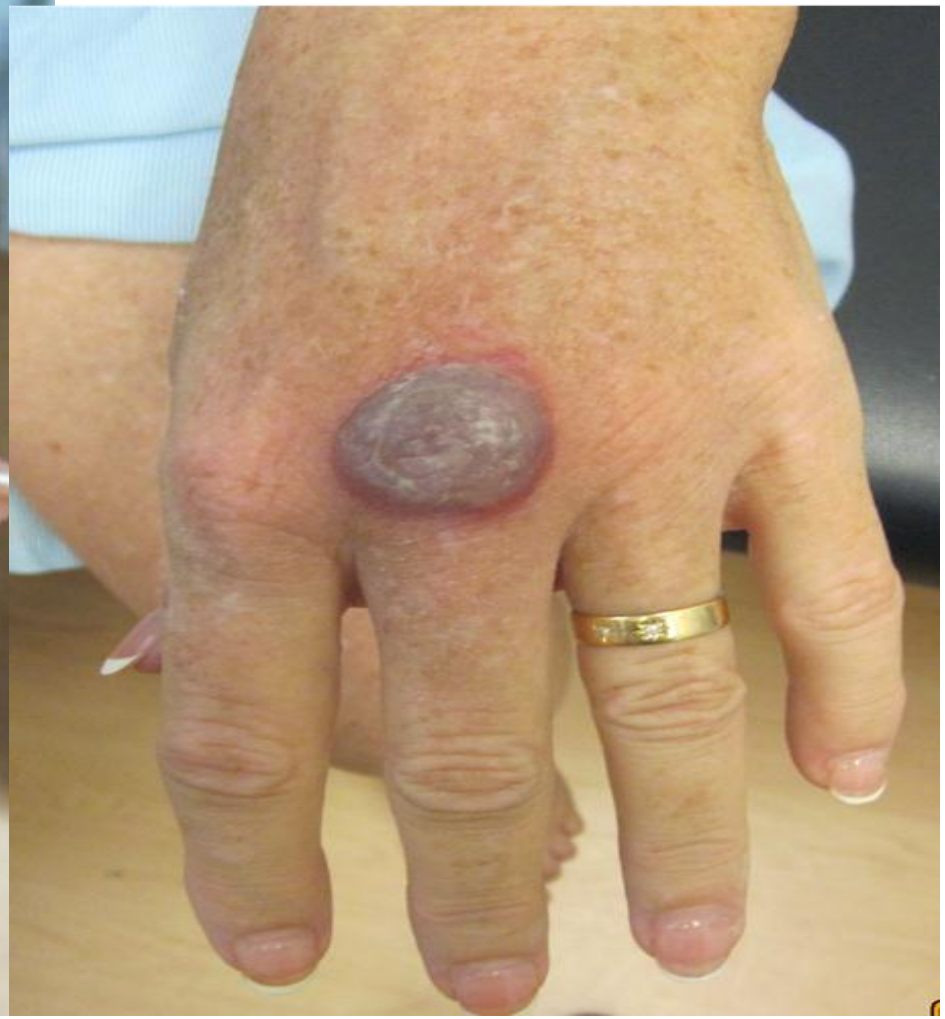
- After discussion with Cardiology team decision to cease nicorandil

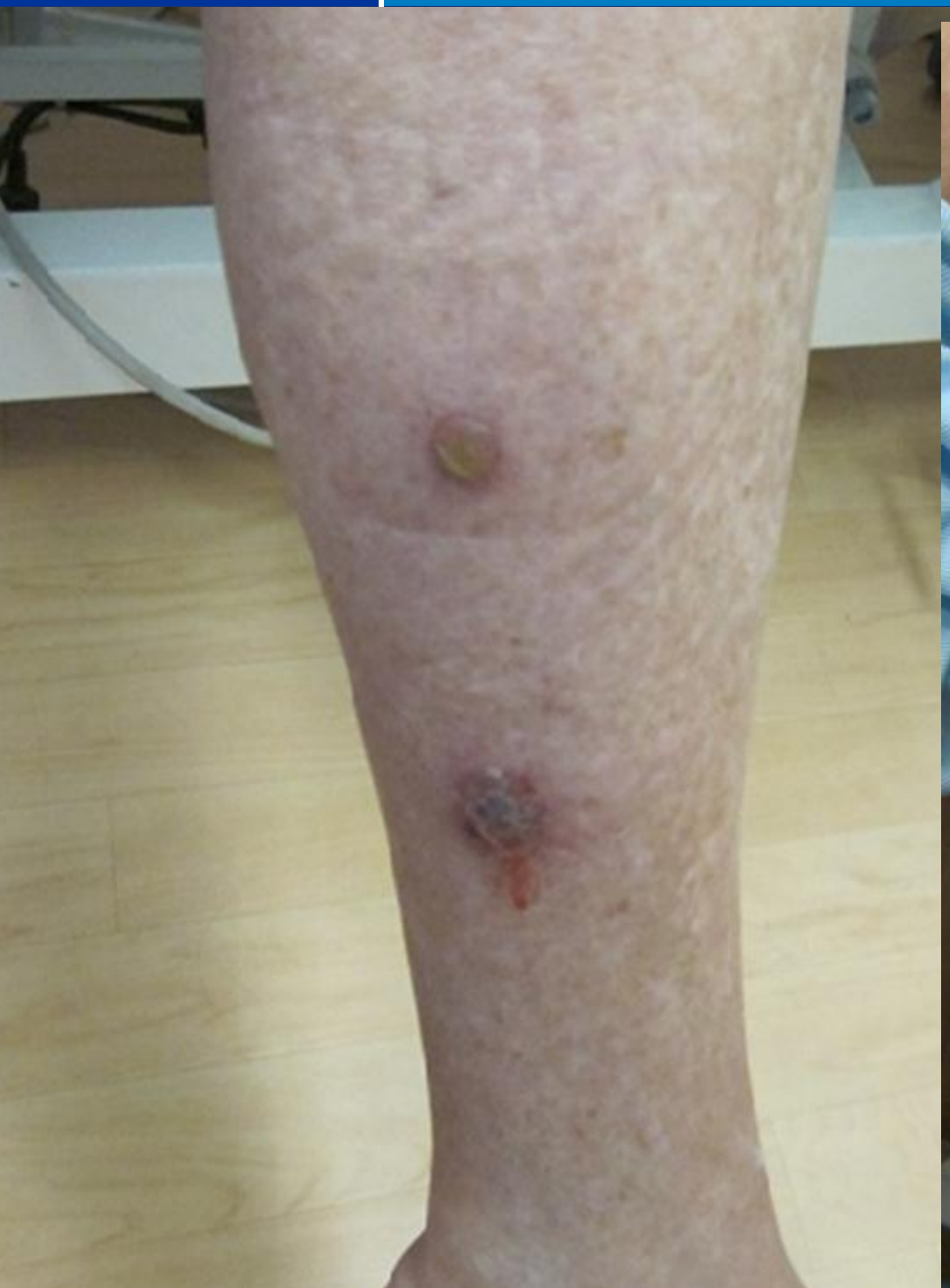
Case -- SS

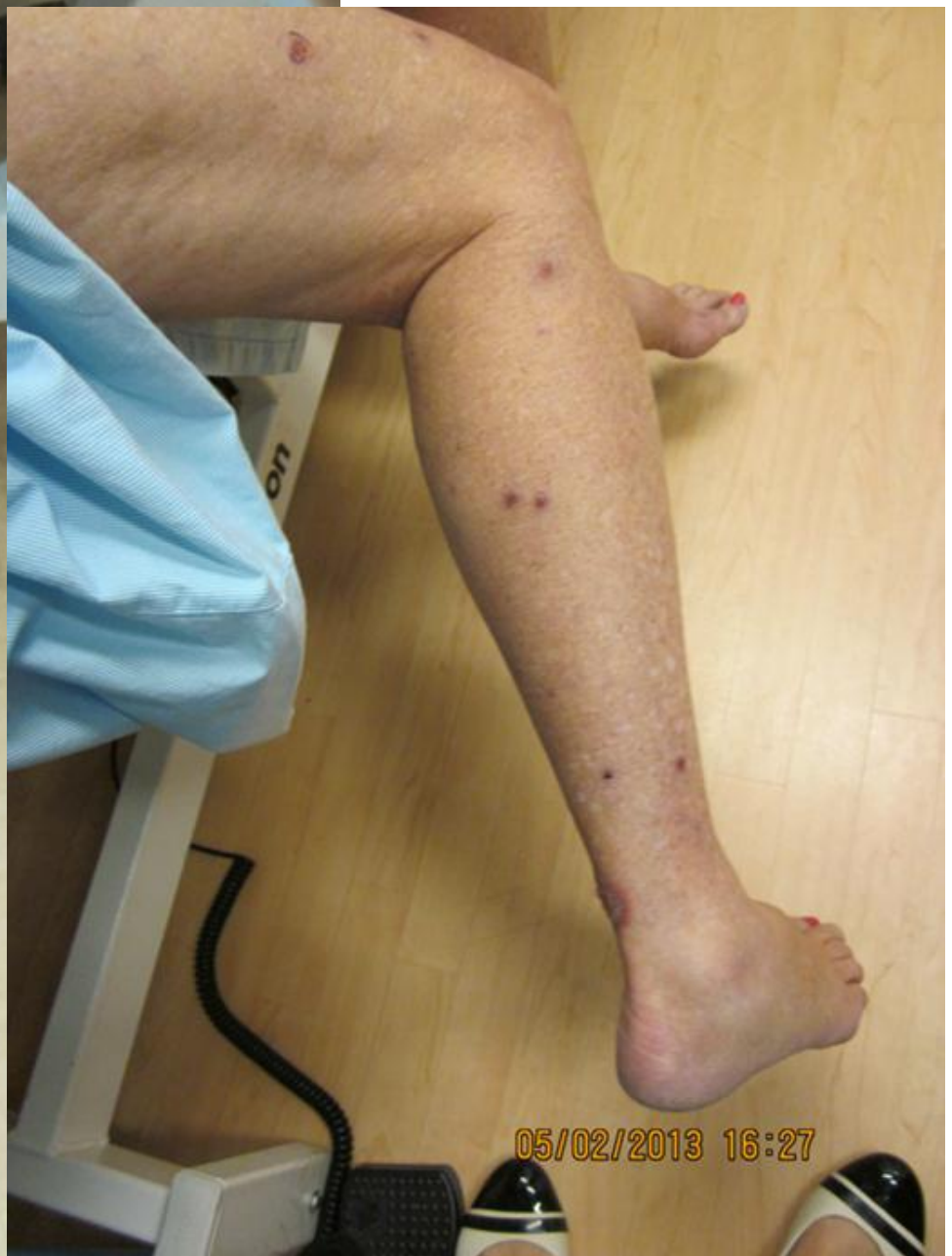
- 56 year old female
- Recent episode of idiopathic pericarditis
- Nil new medications
- 2/7 febrile episodes
- Nil signs of infection
- 1/7 of blood stained bullae and erythematous , painful plaques

- Admitted 1 week earlier with pericarditis
- Managed with NSAIDS and oxycodone and discharged
- Presented to ED
- tender blisters enlarging on lower legs, right thigh, elbows, dorsum hands.
- Myalgias - shoulder and back
- Arthralgias – left knee, elbow, shoulders








05/02/2013 16:27

Investigations

- Viral serology
- EBV, CMV, HIV, Hep B, C, Coxsackie, Barmah forest, Ross river virus-neg
- Enteroviruses – equivocal
- Mycoplasma – neg
- Serum EPP

Histopathology findings

- Non specific mixed tissue reaction including subepidermal bullae formation
  - Initial DDx from pathologist
    - Autoimmune vesiculobullous disorder such as dermatitis herpetiformis or bullous pemphigoid
    - Drug eruption
    - Behcet's disease
    - Bullous impetigo
- Supp report: Professor Weedon believes this could be a late form of bullous Sweet syndrome
- No microorganisms identified.

Sweet syndrome

Sweet syndrome was named after a Dr Sweet from Plymouth, England, who first described this condition in 1964. It is also known as *acute febrile neutrophilic dermatosis*, or simply *Sweet's*.

What are neutrophilic dermatoses?

Neutrophilic dermatoses are skin conditions characterised by dense infiltration of inflammatory cells (neutrophils) in the affected tissue. They arise in reaction to some underlying systemic illness. A neutrophilic dermatosis may be seen in isolation or more than one type may occur in the same individual.

Neutrophilic dermatoses often arise at the site of injury such as a needle prick, biopsy or insect bite. This reaction to injury is known as Koebner phenomenon, pathergy or isomorphic response.

Neutrophilic dermatoses include:

- Sweet syndrome (described below)
- Neutrophilic dermatosis of the dorsal hands
- Pyoderma gangrenosum
- Neutrophilic eccrine hidradenitis
- Erythema elevatum diutinum
- Behcet disease
- Bowel bypass syndrome (bowel-associated dermatitis-arthritis syndrome)

What causes Sweet syndrome?

Sweet syndrome develops in reaction to some internal condition, in previous well or unwell individuals. It has been found to be more common in individuals carrying the genetic marker HLA B54. Sweet syndrome may follow:

- Upper respiratory tract infection (e.g. chest infection, streptococcal throat infection)
- Vaccination
- Inflammatory bowel disease (e.g. ulcerative colitis or Crohn disease)
- Rheumatoid arthritis , lupus erythematosus and relapsing polychondritis
- Blood disorders including leukaemia (most often acute myelogenous leukaemia or myelodysplastic syndromes).
- Internal cancer usually of bowel, genitourinary organ or breast
- Pregnancy
- Drugs, including granulocyte colony stimulating factor (G-CSF), nonsteroidal anti-inflammatory medications, cotrimoxasole and other antibiotics, carbamazepine and several others
- Immunodeficiency

In many people with Sweet syndrome, no underlying condition is found.