Interhospital Conference
Case 9

Sarawin Harnchoowong, MD

Kulsupa Nimmannitya, MD

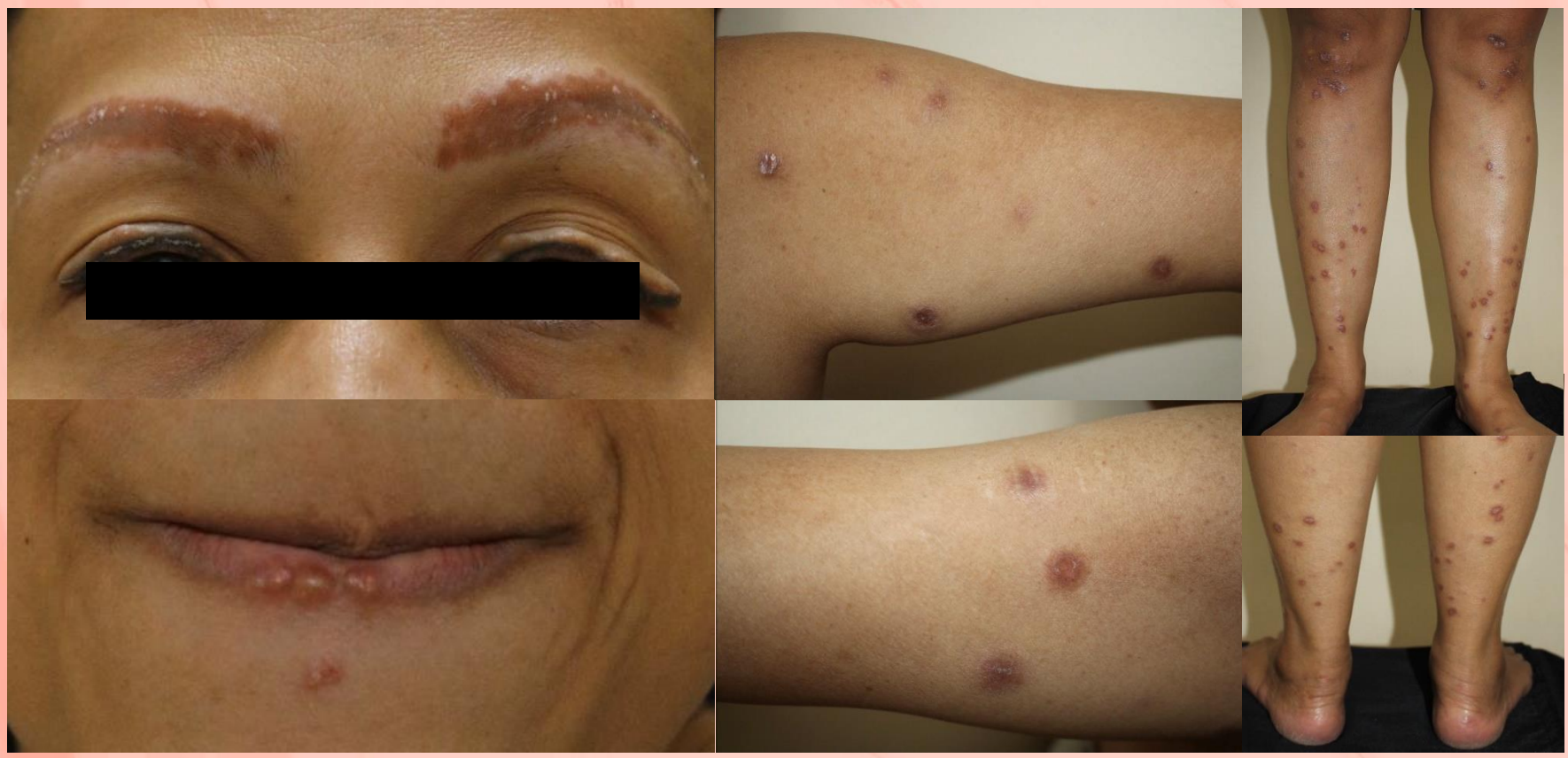
Natta Rajatanavin, MD

A 45-year-old female

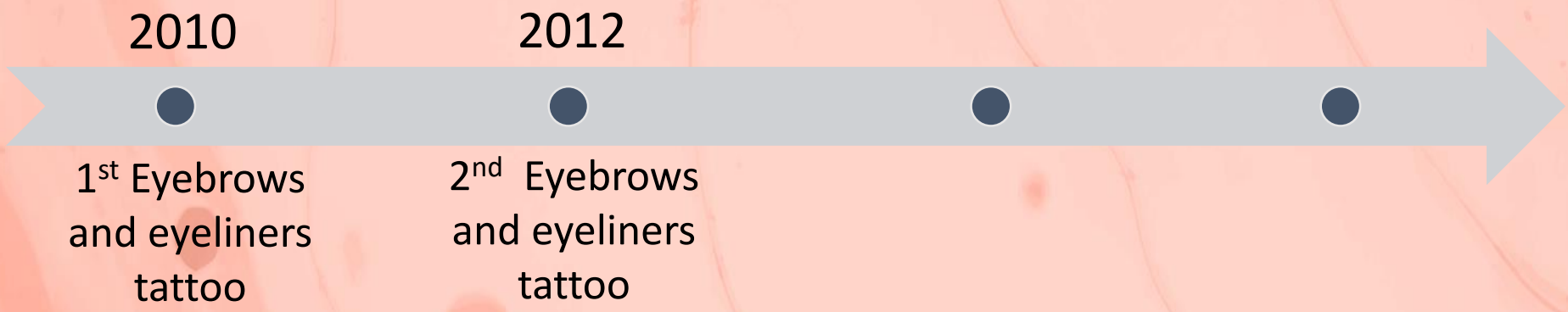
Progressive rash on face and extremities for 2 years

RAMA EST. 1968 DERMATOLOGY

A 45-year-old female



Present illness



Present illness

2010	2012	2017
1st Eyebrows and eyeliners tattoo	2nd Eyebrows and eyeliners tattoo	- Swelling, erythema and tenderness on her previous eyebrows/eyeliners tattoos and BCG scar - Rash progressed to arms, legs and lower lip

Present illness

Treated as hypertrophic scar with IL triamcinolone acetonide (10 mg/ml) x 4

2010	2012	2017	May 2019
1st Eyebrows and eyeliners tattoo	2nd Eyebrows and eyeliners tattoo	- Swelling, erythema and tenderness on her previous eyebrows/eyeliners tattoos and BCG scar - Rash progressed to arms, legs and lower lip	

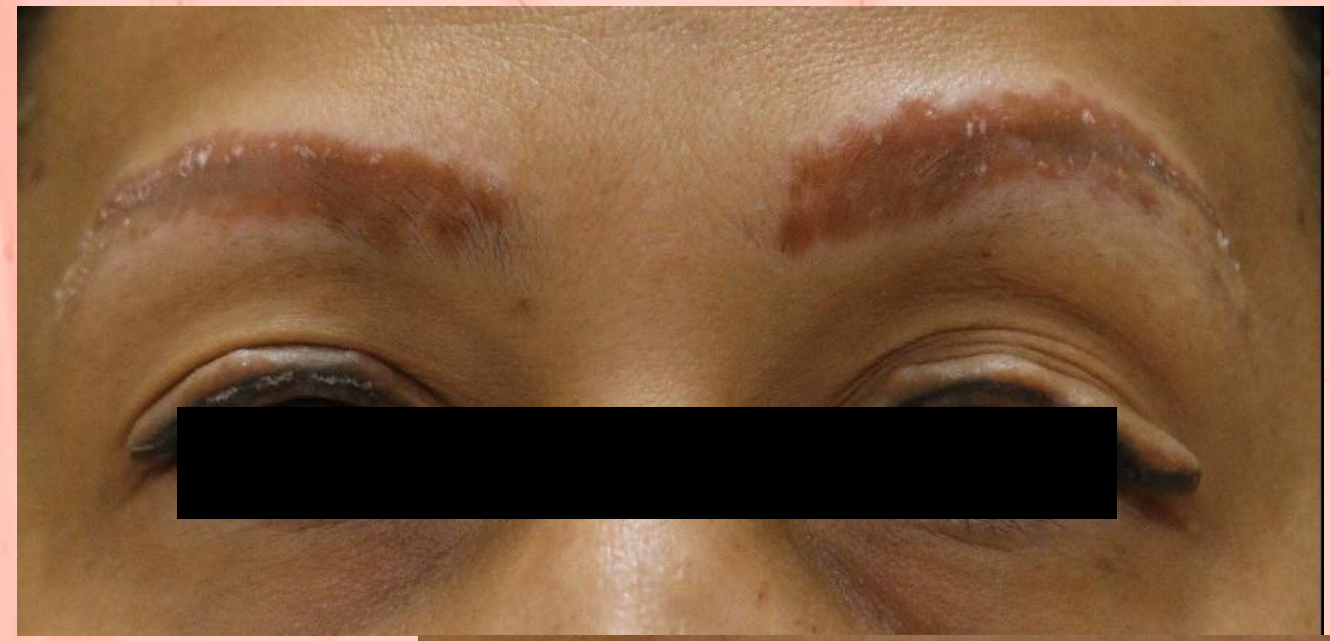
Personal history

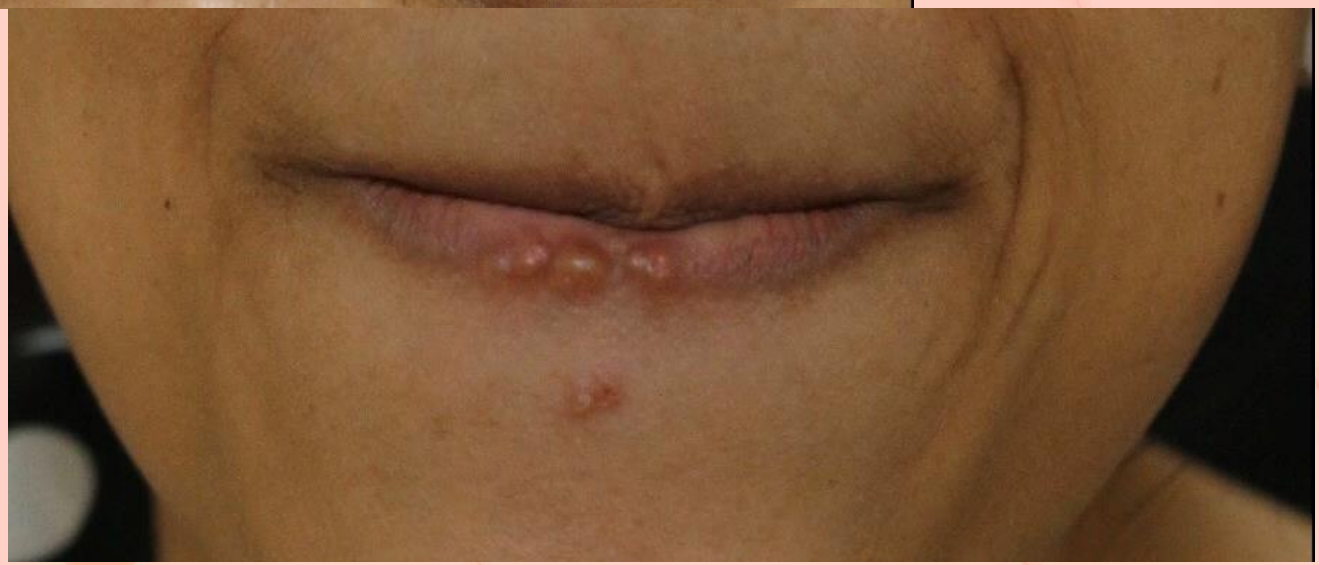
- No underlying diseases
- No current medication
- No herbal used
- Her father had pulmonary tuberculosis 4 years prior

Physical examination

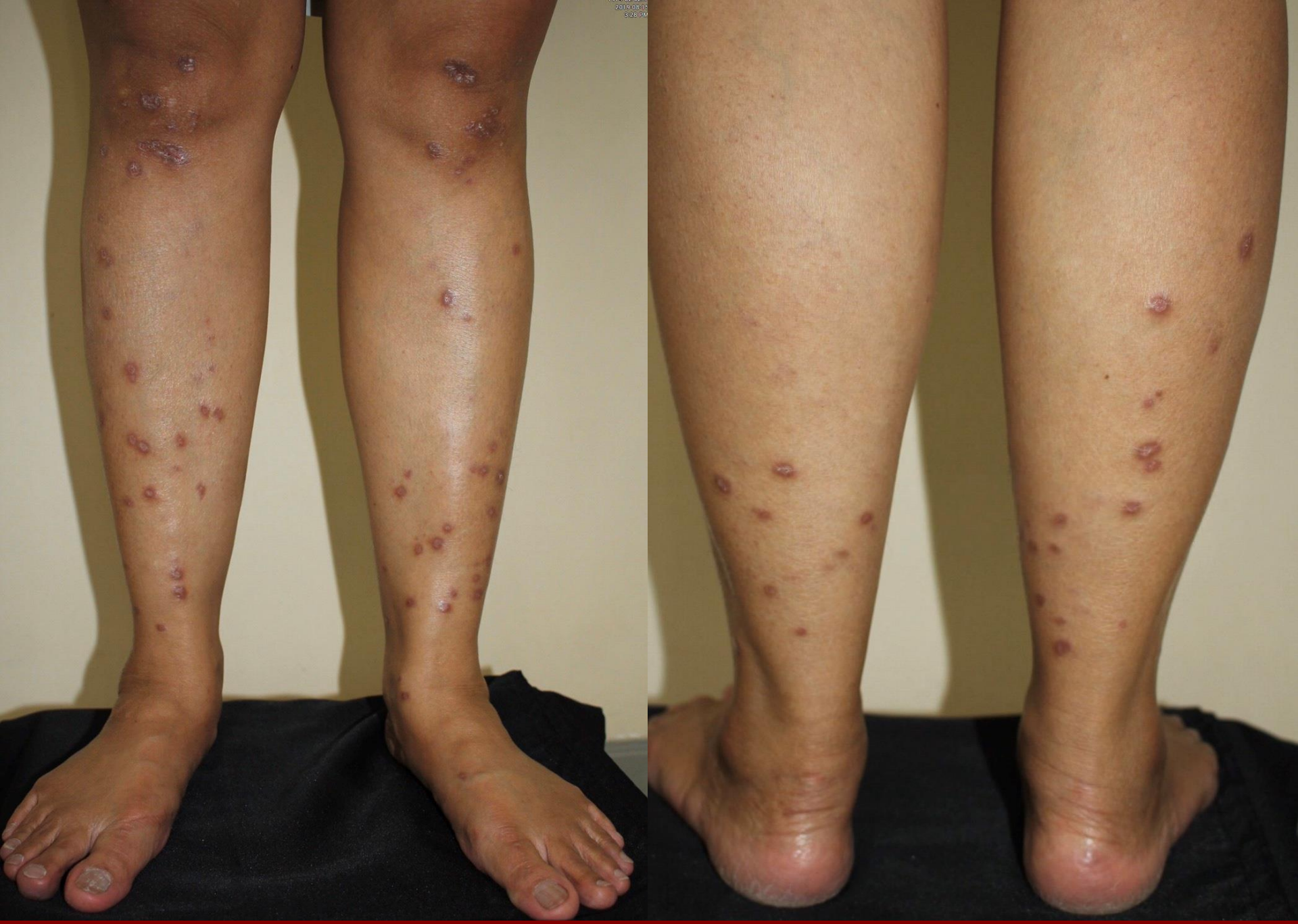
- Vital signs - stable
- HEENT - no pale conjunctivae, anicteric sclerae
- LN - not palpable
- Respiratory - WNL
- CVS - WNL
- GI - WNL
- Neuro - grossly intact

Dermatological examination

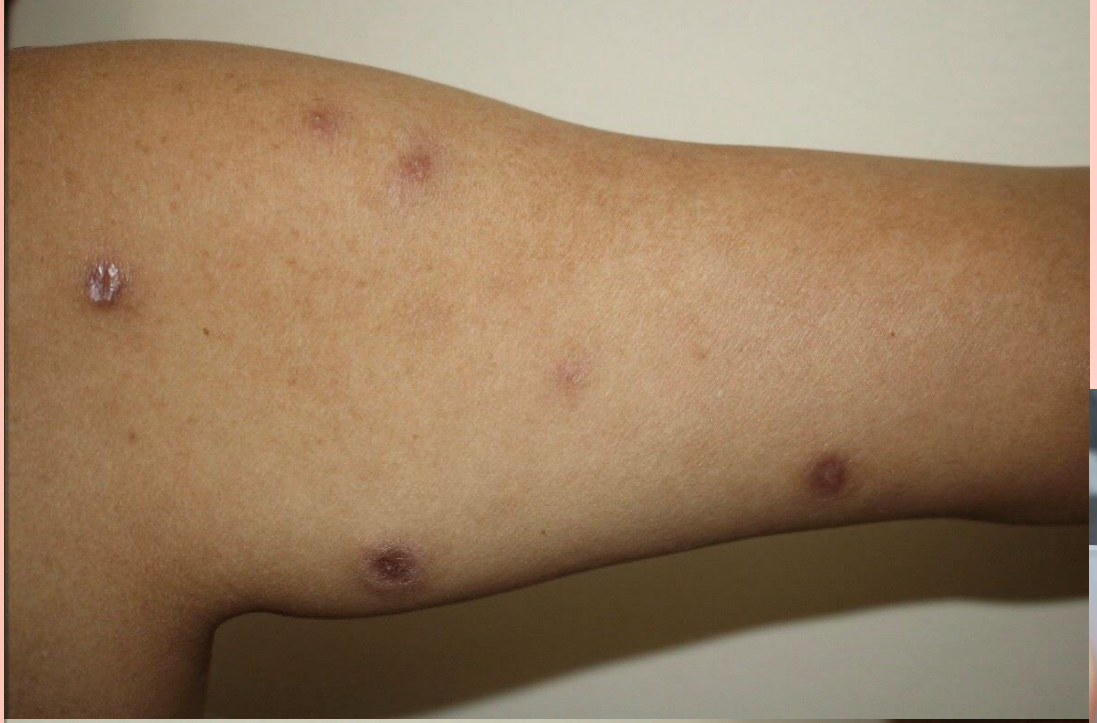


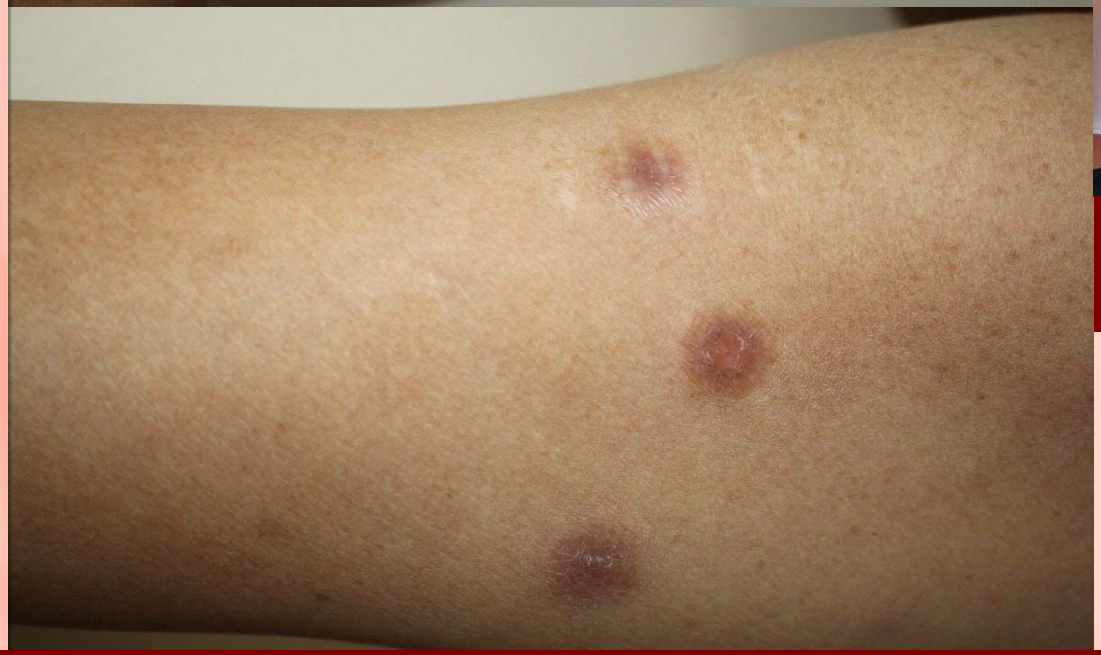


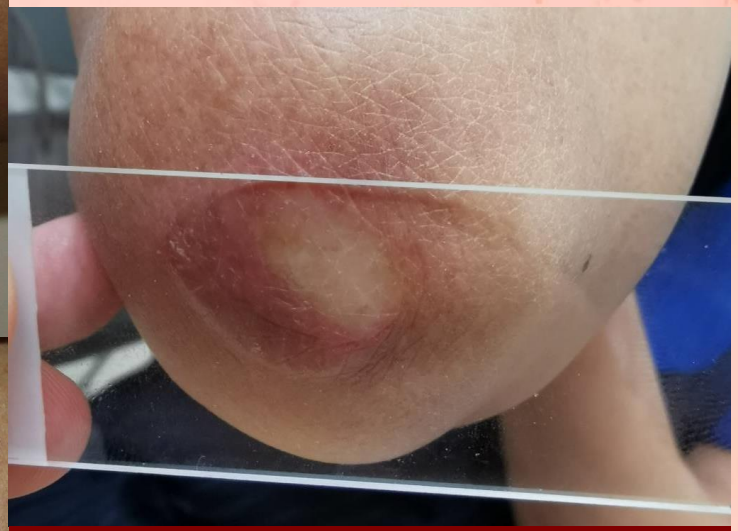
Bilateral indurated erythematous to brownish plaques on both eyebrows,
skin-colored plaques on both eyeliners
and erythematous papules on lower lip



Multiple discrete indurated erythematous small plaques on both legs and arms







Diascopy test showed
apple-jelly appearance

Multiple discrete indurated erythematous small plaques on both legs and arms

Problem list

1. Progressive indurated erythematous papules and plaques on previous scars, extremities and lower lip
2. Family history of pulmonary tuberculosis

Differential diagnosis

Lesions at scars

Inflammation

- Hypertrophic scar
- Tattoo granuloma
- Sarcoidosis
- Pseudolymphoma

Infection

- Chronic infection
- eg. NTM infection

Differential diagnosis

New lesions

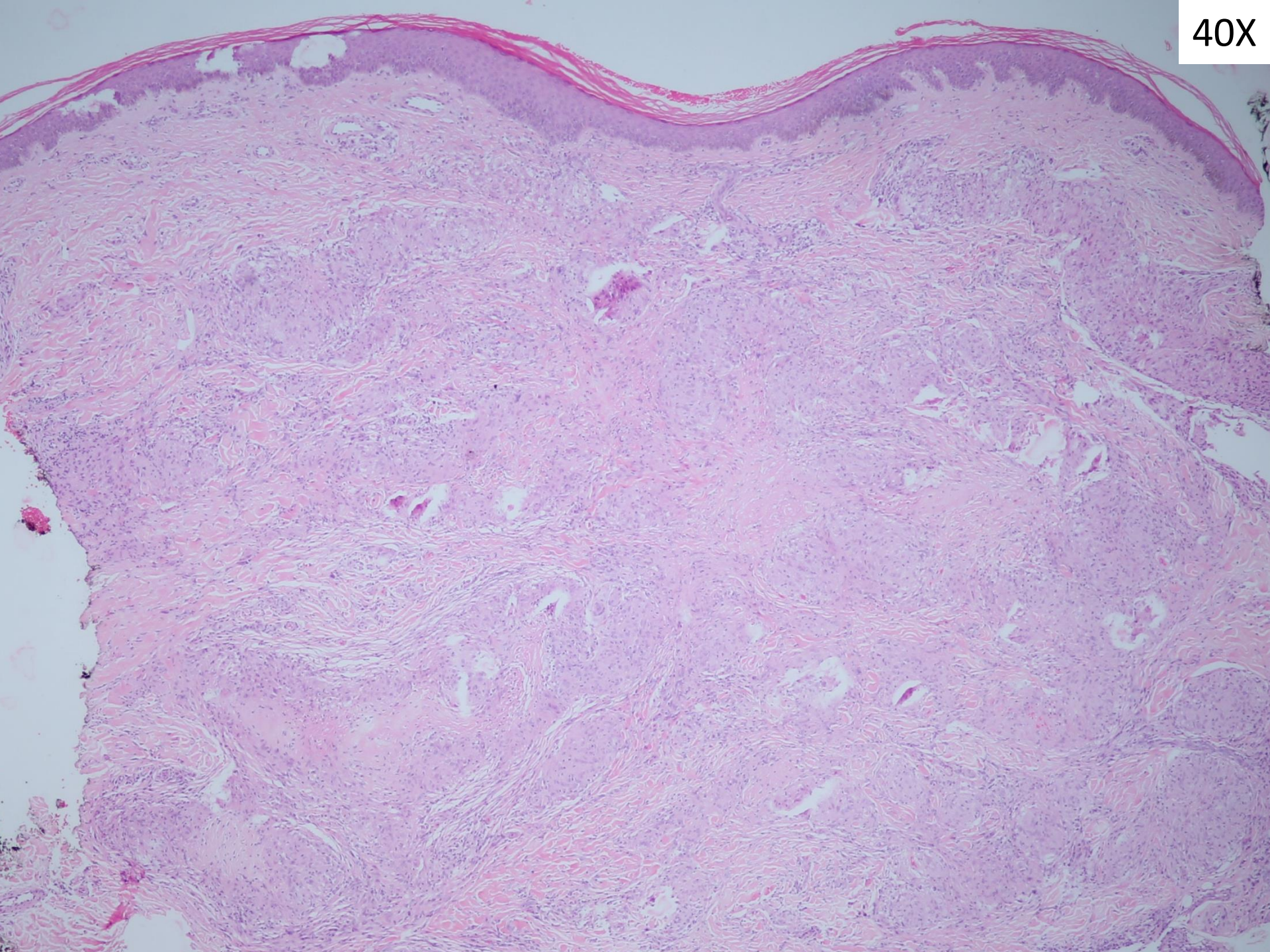
Inflammation

- ~~Hypertrophic scar~~
- ~~Tattoo granuloma~~
- Sarcoidosis
- Pseudolymphoma

Infection

- Chronic infection
- eg. NTM infection

Histopathology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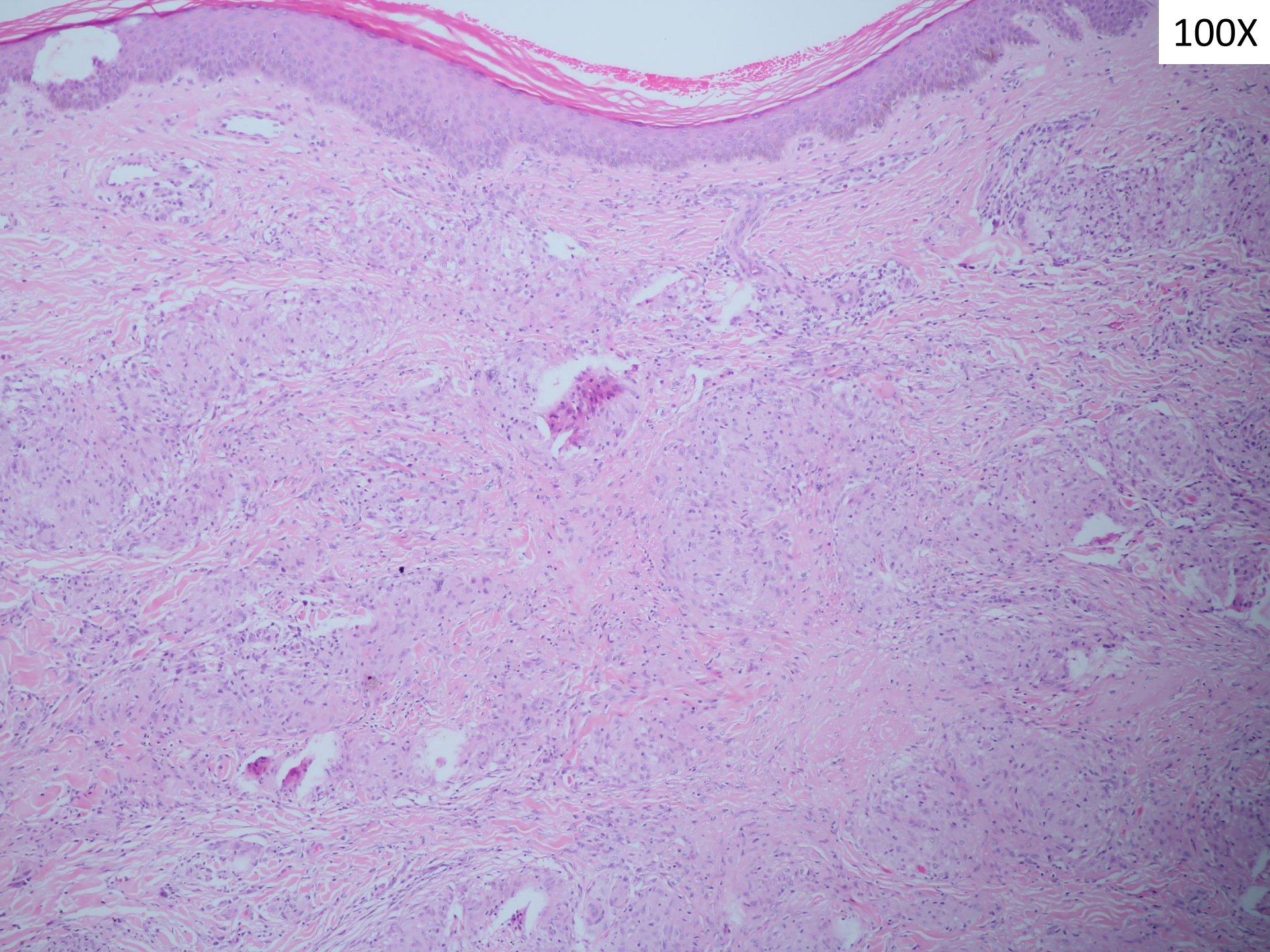
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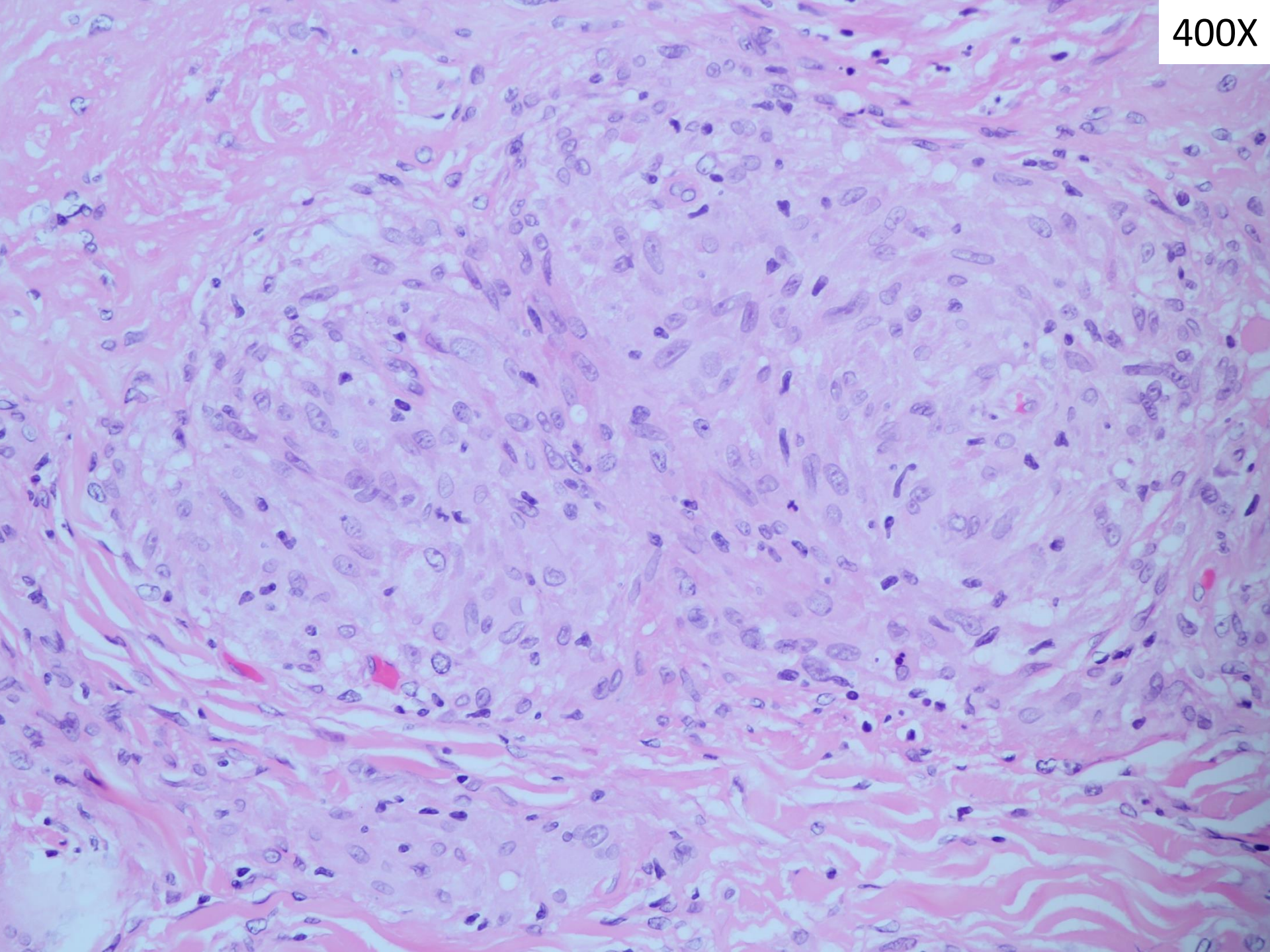
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Histopathology

- Special stains
  - GMS
  - PAS
  - AFB
  - Fite
  - Brown&Brenn

  } Negative
- Polarized light - negative

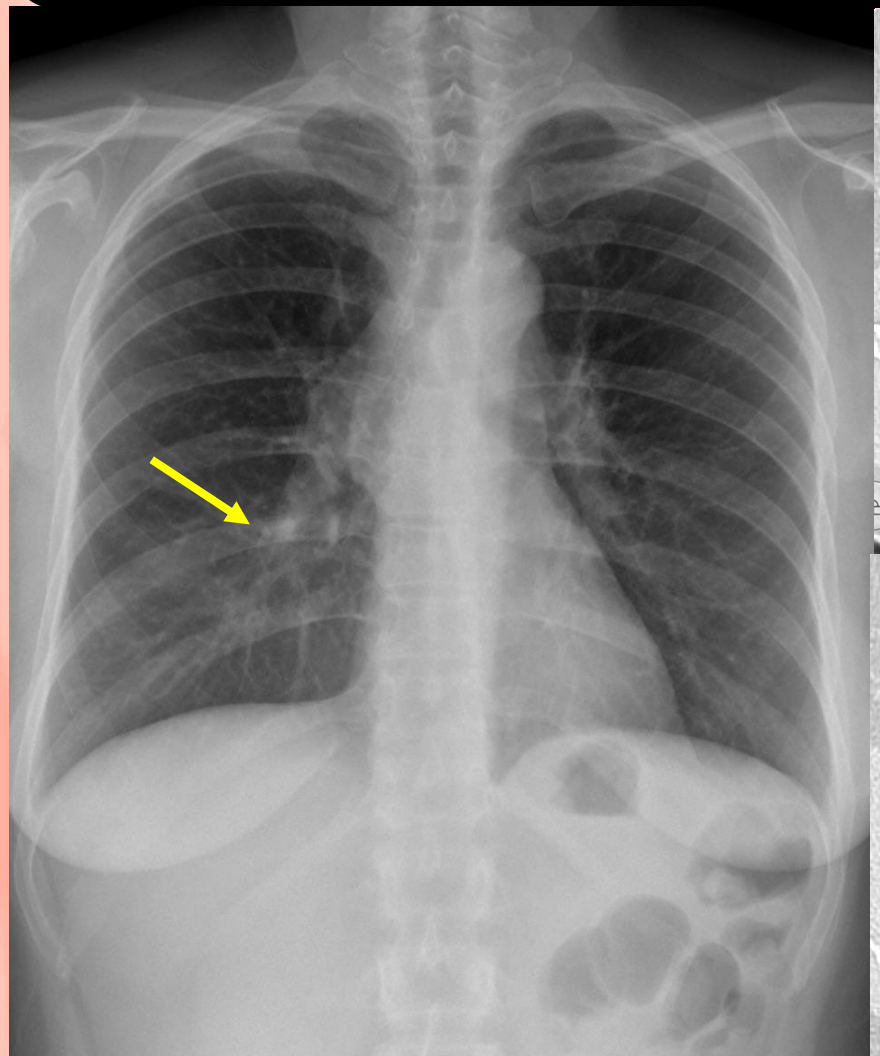
Investigations

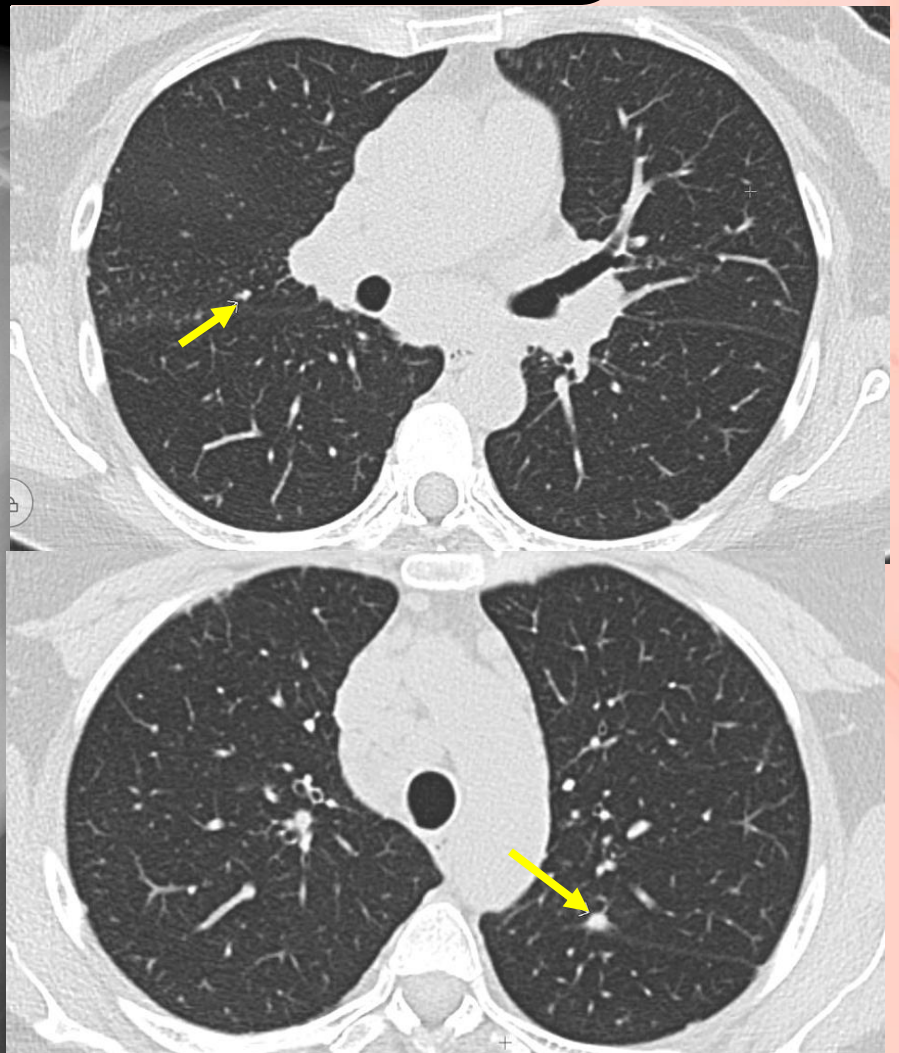
- CBC
  - WBC 4580 /cumm (N 49%, L 35%, Mo 11%, Eo 5%)
  - Hb 14.3 g/dl, Hct 42.2%
  - Platelets 382000 /cumm
- Liver/renal function test - WNL
- Calcium - 9.8 mg/dL
- LDH - 201 U/L, CRP - 0.56 mg/L
- Eyes examination - Pan-uveitis
- EKG - Normal

Further investigations

- Chest radiograph
  - Bilateral reticulonodular infiltration at both upper lungs, with prominent soft tissue at right hilum
- HRCT chest
  - Multiple nodules in both lungs with favor perilymphatic distribution as well as multiple enlarged supraclavicular, mediastinal and bronchopulmonary nodes
- T-spot.TB - Negative

Further investigations





Further investigations

- Pulmonary function test - Mild obstructive
- Bronchoscope - Normal findings
- Subcarina/Rt paratrachial lymph node transbronchial needle aspiration biopsy
  - Histology - Presence of non-necrotizing granuloma
  - Aerobes C/S
  - TB direct
  - GMS
  - AFB/mAFB

  } Negative

Systemic sarcoidosis

(skin, lungs, LN, eyes)

Sarcoidosis

- Chronic, multisystem inflammatory disease
- Characterized by the presence of non-caseating granulomas
- Unknown etiology, Th1 cell-mediated

J Ophthalmic Inflamm Infect.2013;3:53
An Bras Dermatol.2010;85:903-5
Am J Clin Dermatol.2006;7:375-382

Sarcoidosis

- Involve multiple organs
  - Lungs, skin, eyes, lymph nodes, salivary gland, heart, spleen, liver and nervous system
- Epidemiology
  - Bimodal incidences (25-35 y/o and 45-55 y/o)
  - Female predominance
  - More common in European (up to 100:100000 cases) but rare in Asian (up to 2:100000)

J Ophthalmic Inflamm Infect.2013;3:53
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Am J Clin Dermatol.2006;7:375-82

Cutaneous sarcoidosis

- Known as “Great imitator”
- Cutaneous presentation accounted for 20-30%
- About 30% of cutaneous sarcoidosis developed systemic within 1 month to 1 year
- Clinical features
  - Non-specific : erythema nodosum (good prognosis)
  - Specific

An Bras Dermatol.2010;85:903-5
Am J Clin Dermatol.2006;7:375-82

Specific features

- Common
  - Macules, papules, nodules, plaques, scar, lupus pernio
- Uncommon
  - Annular, atrophic, lichenoid, psoriasiform, subcutaneous
- Rare
  - Alopecia, angiolupoid, erythrodermic, hypopigmented, ichthyosiform, micropapular, nail dystrophy, ulcerative, verrucous

An Bras Dermatol.2010;85:903-5
Am J Clin Dermatol.2006;7:375-82
J Am Acad Dermatol.2012;66:e1-18

Scar sarcoidosis

- Found 29% of cutaneous sarcoidosis
- Presented at any sites of old wounds
  - Injection, tattoos, venepuncture, post-herpes etc
- Latency period : 6 months to 59 years

Clin Dermatol.2007;25:295-302
Acta Dermatovenerol.2013;22:71-4
J Am Acad Dermatol.2012;66:e1-18

Scar sarcoidosis

- Singly or precede/follow/concurrent systemic disease
- May indicate exarcerbation of disease
- Associated to pulmonary involvement, lymphadenopathy, erythema nodosum

Clin Dermatol.2007;25:295-302
Acta Dermatovenerol.2013;22:71-4
J Am Acad Dermatol. 2012;66:e1-18

Management for cutaneous sarcoidosis

- Local
  - Topical class I corticosteroid
  - Intralesional triamcinolone 2.5-10 mg/ml q 3-4 wks
  - Topical tacrolimus ointment
- Systemic
  - Oral prednisolone 0.5-1 mg/kg/day, then taper
  - Chloroquine 250-750 mg/day
  - Hydroxychloroquine 200-400 mg/day
  - Others : MTX, azathioprine, doxycycline, infliximab

J Am Acad Dermatol.2012;66:e1-18
Int J Dermatol.2015;54:1-12.

Management

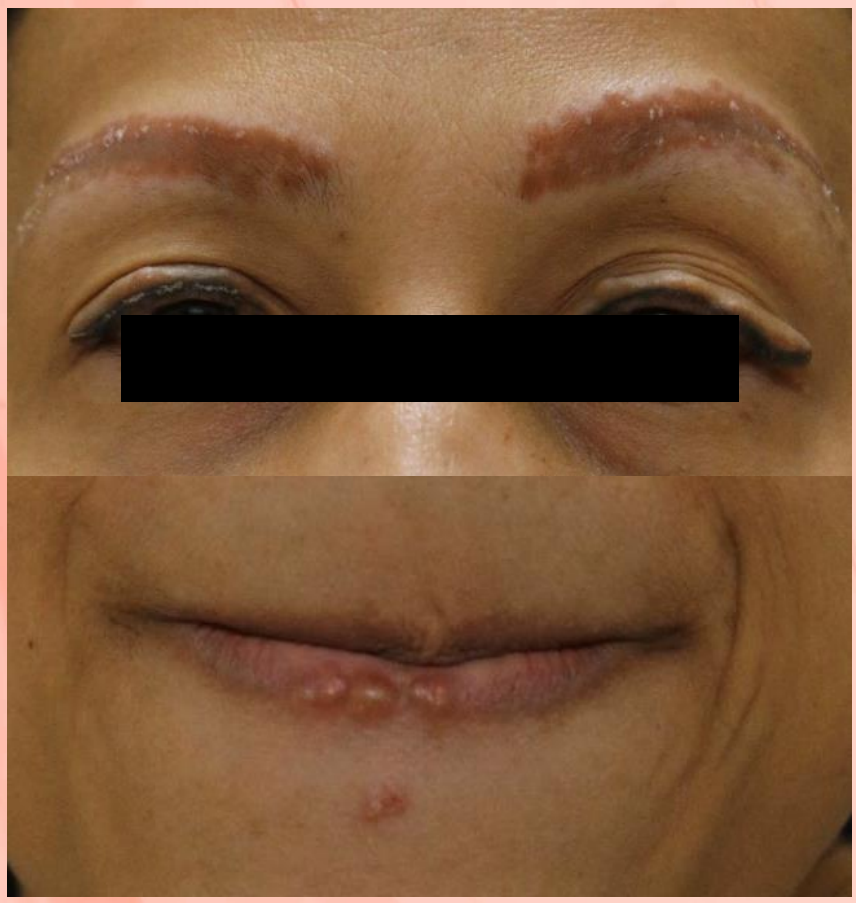
Our case

- Systemic treatment
  - Hydroxychloroquine 200 mg/day
    then
  - Prednisolone 60 mg/day, tapering down
  - Methotrexate 7.5 mg/week

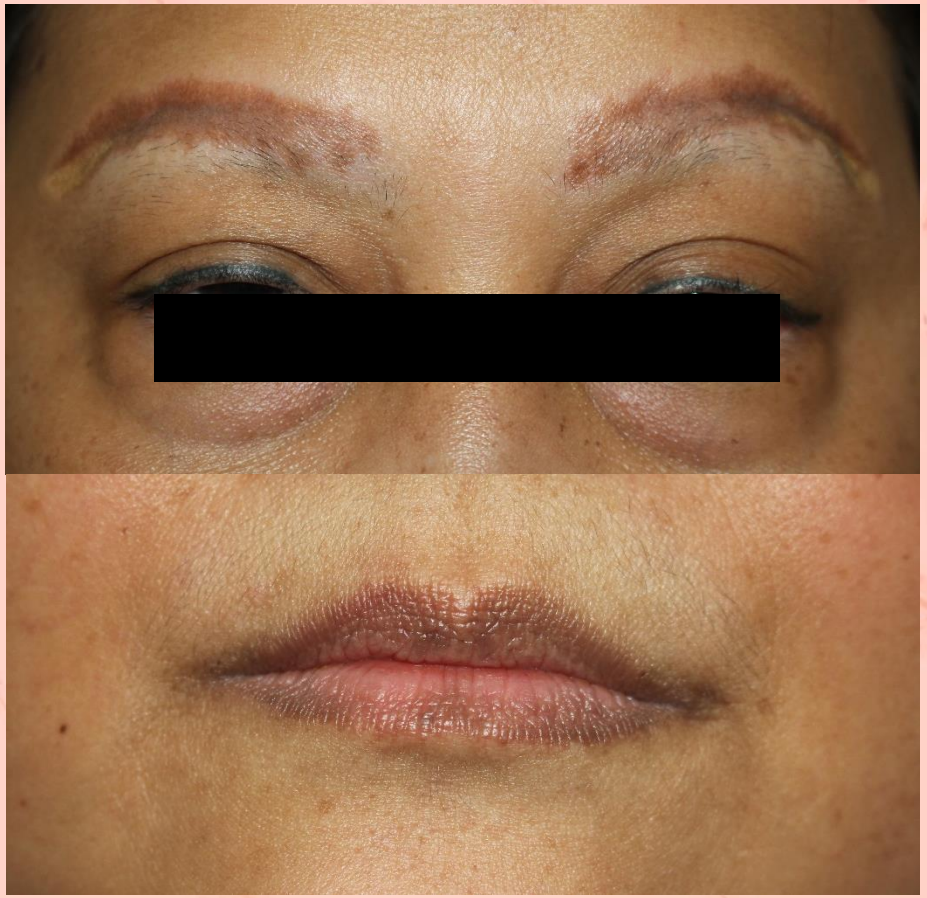
- Topical treatment
  - 0.1% tacrolimus ointment AP facial lesions bid
  - 0.1% clobetasol propionate cream AP body lesions bid

Case progression

2017

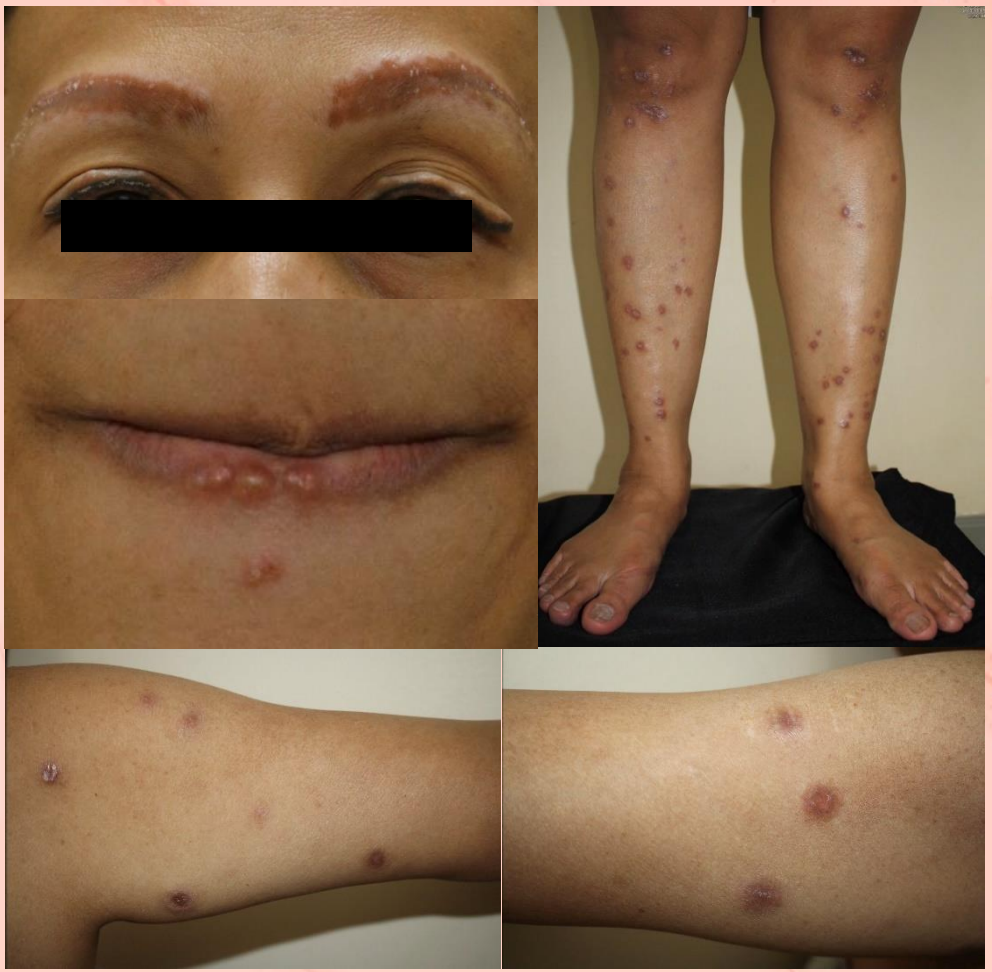


2020



Case summary

- A 45-year-old female with progressive rash on face and extremities
- **Dx** : Systemic sarcoidosis
- **Rx** : Oral HCQ, prednisolone, MTX + topical steroids/ calcineurin inhibitors



Take home messages

Sarcoidosis

Cutaneous sarcoidosis as “Great imitator”

Occurs after scars for many years

Always look for systemic involvement, especially lungs