GRAND ROUND

A young man with arthralgia, hyperpigmented skin lesion and fever

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DECLARATION

There is no potential conflicts of interest

INFORMED WRITTEN CONSENT

আমি [redacted], বয়স- ২৬ বছর
ঠিকানা : মোহাম্মদপুর, ঢাকা।

২০১৬ সালের জুলাই মাসে ঢাকা মেডিকেল কলেজ ও হাসপাতালের মেডিসিন বিভাগের অধীনে ভর্তি হওয়ার পর ধরা পড়ে যে আমি [redacted] রোগে আক্রান্ত।

আমি অজ্ঞানে আমার ছবি তোলার জন্য অনুমতি দিয়েছি। এতে আমার কোন আপত্তি নেই।

ভবিষ্যতে কোন সেমিনার, সিম্পোজিয়াম, বা জার্নালে আমার ছবি, তথ্য ও ভিডিও প্রকাশ করলে আমার কোন আপত্তি নেই।

Ibrahim

Case scenario

A 26-year-old Bangladeshi gentleman, single, student & part time sales executive, normotensive, non diabetic, permanent residence in Mohammodpur ,Dhaka was admitted in a tertiary care hospital on 6th July, 2016 with the complaints of

1. ***Polyarthralgia for 17 months***
2. ***Hyperpigmented skin lesion for 10 months***
3. ***High grade fever for 1 month***

Arthralgic phase

February-November, 2015

- **Occasional pain in right ankle joint and right hip joint, mainly after heavy work, tolerable**
- **Subsequently pain involved PIP joint of left thumb & little finger and left wrist joint**
- **Pain dorsum of right foot**

Arthralgic phase, cont…

February-November, 2015

- **Persisted all through the day**
- **Associated with fever- not documented**
- **No definite aggravating and relieving factors.**
- **No features of inflammation, no morning stiffness.**
- **No history of back pain**

Important negatives of Arthralgia

- Raynaud's phenomenon
- Eye ache, red eye, eye discharge, visual impairment
- Alopecia, rash, oral ulceration
- Bleeding from any site
- Skin tightening
- Sore throat, cough, respiratory distress
- Chest pain, palpitation
- Proximal myopathy, myalgia
- Urethral discharge, dysuria, penile ulceration
- Dysphagia, abdominal pain, diarrhea

Multiple consultation with Orhopedic specialist

17th October-7th November,2015

- **Investigation-**

  Hb%- 13.7 g/dl, ESR-28 mm in 1st hour

  S creatinine- 0.8 mg/dl, S uric acid- 5.23

  RA test- 92.2IU/ml, Anti-CCP- 12.9 U/ml

- **Prescribed-**

  tab salfasalazine(500mg) one tab twice daily

  tab methylprednisolone(4mg) -short course

  cap indomethacin(25mg) twice daily

  tab paracetamol, tab calcium

  cap omeprazole

Response with drugs

- **Pain subsided**
- **Reappeared after 7 days**
- **Self medication - tab methylprednisolone on & off**
- **Continued tab salfasalaazine**
- **Asymptomatic – November,2015 – June, 2016**

Hyperpigmentation phase

May- July, 2015

- **Maculopapular lesion – pea sized**
  upper part of left arm
  left side of the cheek

- **One and half months later-**
  right side of the cheek

- **Gradually increase in size**

- **Painless, non-itchy, non discharging with normal skin sensation**
- **Occasional burning during washing with water**

Multiple consultation with dermatologist

September,2015

- **Prescribed several creams ,ointments (antifungal, topical steroids & retinoic acid derivatives) emollients and capsule fluconazole**
- **Significant improvement in terms of size and color**
- **Remained free of symptoms to some extent up to May,2016**

New symptoms…

- **March, last week,2016: Foul smelling discharge from mouth**
- **April, last week,2016: Halitosis**
- **May, last week,2016: Right sided gum swelling**

New symptoms…

3rd June,2016

- **High grade, continued fever , maximum recorded temperature 102 degree F, associated with chills & rigors**

  associated with abdominal pain &vomiting

- **Bilateral painful parotid swelling**

- **Bilateral painful neck swelling**

- **Burning sensation in the tongue and gum**

Reappearance of previous symptoms

- **Mild arthralgia reappeared involving small joints of both hands (MCP joints and PIP joints) and large joints(left wrist ,right elbow joints, right hip and ankle joint)**

- **Facial hyperpigmentation reappeared**

Consultation with GP

12th June,2016

- **Advised – some investigation : CBC , urine R/M/E, widal test**
- **Prescribed – tab cefuroxime and symptomatic treatment**
- **No improvement**
- **Advised hospitalization**

Consultation in OPD(Tertiary level)

20th June,2016

- **Diagnosed as a case of MUMPS**
- **Prescribed capsule cefixime , antipyretics and anti emetics**
- **No improvement**

Consultation in a private hospital (OPD basis)

25th June,2016

- **Several investigation done:**
  - **CBC: neutropenia (3,100/cumm, N-74%, L-20%)**
  - **MT: 5 mm in 1st hour**
  - **S Calcium: 8.52 mg/dl**
  - **USG of W/A: mild hepatosplenomegaly**
  - **CXR P/A view: normal**

Given tab cefixime and symptomatic treatments

Referred to tertiary level hospital

Admitted in tertiary care hospital

2nd July,2016

- **Diagnosis inconclusive**
- **Discharged with cap clindamycin and tab ciprofloxacin and symptomatic treatment**
- **Condition deteriorated**

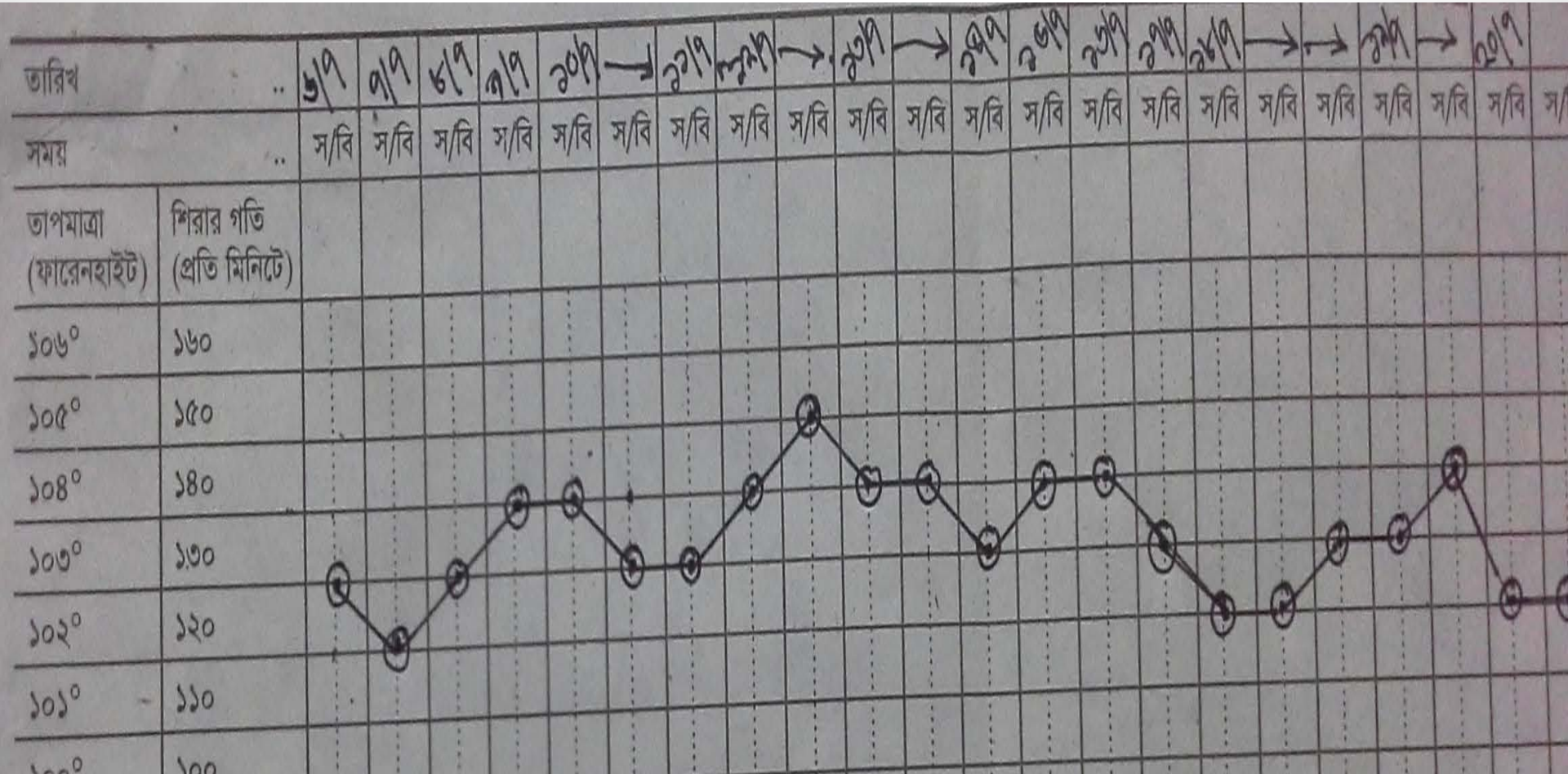
Admitted in another Tertiary Care Hospital

6th July,2016

- **Fever**
- **Bilateral painful parotid swelling**
- **Bilateral painful neck swelling**
- **Burning sensation in gum and tongue**
- **Hyperpigmented skin lesion**
- **Polyarthralgia**

Febrile phase

- **High grade, continued fever, maximum recorded temperature 104 degree F**



Febrile phase

- **Associated with chills and rigors, partially subsided with antipyretics and tepid sponging**
- **Associated with anorexia and significant weight loss(lost 13 kg in 1 month)**
- **Nonspecific upper abdominal pain and vomiting**

Important negatives of Fever

- Night sweats
- Cough
- Respiratory distress
- Hemoptysis
- Diarrhea
- Dysuria, polyuria, frequency
- Headache, impaired consciousness, seizure
- Skin rash, nodular swelling

Changes in skin lesion

- **Hyperpigmentation increased in terms of size and color**
- **Became scattered throughout the trunk and left shoulder**
- **Sparing palmer creases, soles of the feet, gum & hard palate.**

Important negatives…

- No bowel and bladder dysfunction
- H/O jaundice
- No significant past illness/similar illness
- Tuberculosis
- COPD, bronchial asthma, allergy
- No history of drug abuse, unsafe sexual exposure
- He never travelled in malaria or Kala-azar endemic zone or outside Bangladesh.

Personal data

- Non diabetic, normotensive
- Nonsmoker, non alcoholic
- Family history- mother had BONE TB 20 years back (completed Anti-TB for 9 months)

  grandmother had GLAND TB 3 years back (completed Anti-TB for 9 months)

- Immunized as per EPI schedule

- Belongs to middle class family

General Examination
(during admission)

- Appearance: looked ill
- Body build: average
- Nutritional status: poor
- Co-operative
- Decubitus: on choice
- Anemia: +
- Jaundice: absent
- Cyanosis: absent
- Clubbing: absent
- Koilonychia: absent
- Leuchonychia: absent
- Edema: absent
- Dehydration: absent
- Lymph node: cervical lymphadenopathy(both ant & post chain) slightly tender, discrete, rubbery, variable size, large one measuring about 2*1.5 cm, no discharging sinus, not fixed with skin or underlying structure)
- Neck vain : not engorged
- Thyroid gland : not palpable
- Temperature : 102 degree F
- Blood pressure : 100/70 mm Hg (no postural drop)
- Pulse : 90/m
- Respiratory rate : 14/min

Skin condition

- **Hyperpigmented** skin lesion over both side of the face measuring about 6x5cm ,ill defined margin.

Skin condition

- **Few papule, nodule and ulcer present**
- **Lesions present in the left upper arm & front and back of the chest.**

Locoregional Examination

- **Parotid gland: enlarged bilaterally, tender, firm, overlying skin was normal, no discharging sinus.**

- **Oral thrush**

Examination of Musculoskeletal System

- **Gait- normal**
- **Arms- joint movement normal in all range**
- **Legs- movement normal in all range.**
- **Spine- normal in terms of appearance and movement**

Other Systemic Examination

Findings were unremarkable

QUESTIONS

High grade continued fever, weight loss, Upper abdominal pain & vomiting

Bilateral painful parotid swelling, Painful lymphadenopathy

Polyarthralgia, Hyperpigmented skin lesion

Halitosis, Gum swelling, Burning in the tongue

F/H/O TB

Mild anemia, Febrile, Tender cervical lymphadenopathy Parotid gland enlargement

Hyperpigmented ill-defined papulonodular ulcerated skin lesion in the face, left upper shoulder & trunk; Oral thrush

Clinical Diagnosis

Provisional diagnosis

Sarcoidosis

Differential diagnosis

1. Lymphoma
2. Disseminated Tuberculosis
3. SLE

Events during hospitalization

Events during hospitalization

- ***11th July,2016-***

  bilateral orchitis (right>>left)

- ***24th July,2016-***

  complained dryness of mouth

Investigation profile

Complete blood count

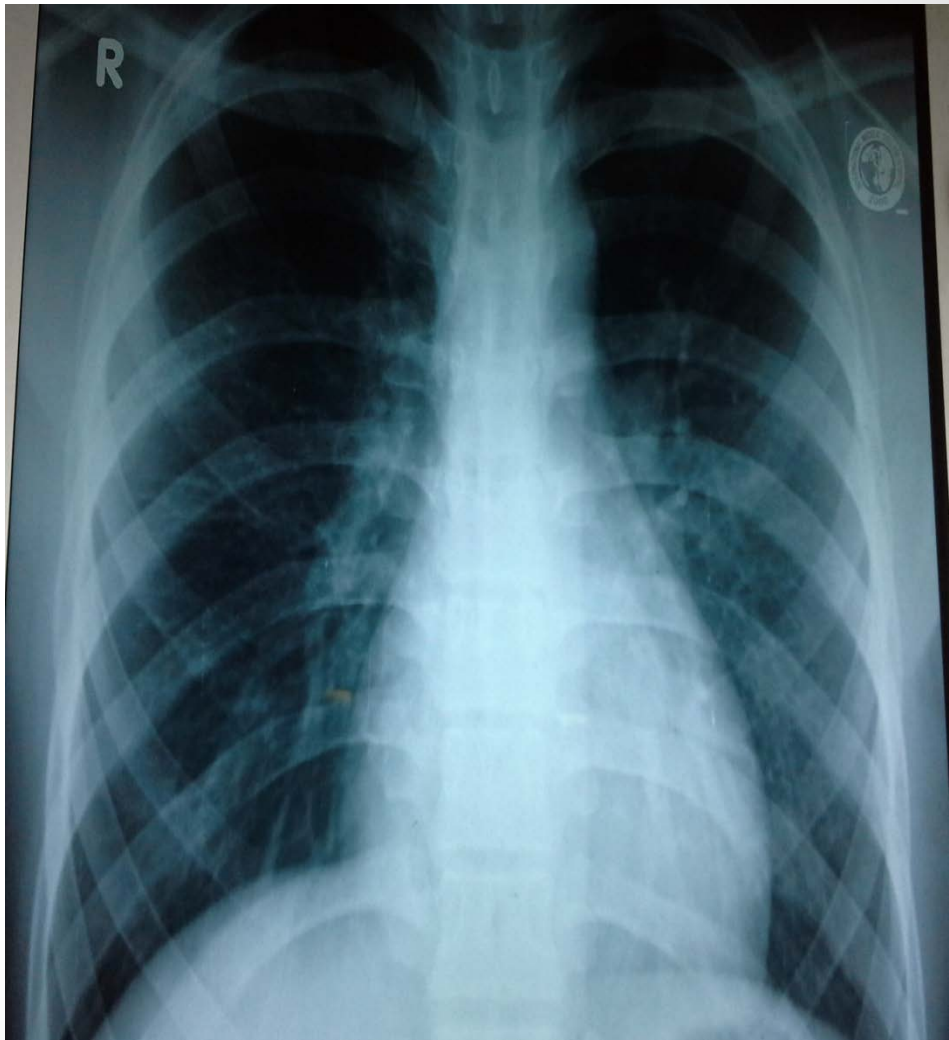
Date	7.7.2016	10.7.2016	16.7.2016	24.7.2016
Hb g/dl	11.90	11.8	11	11.8
MCV MCH MCHC	81.42 fl 28.70 pg 35.30 g/dl	80.5 28.8 35.8	82.1 28.1 34.3	81.7 28.4 34.7
ESR mm in 1st hour	21			
WBC	2500/cumm(N-70%,L-25%)	1600/cumm (N-63.7%,L-32%	2450/cumm(N-79%,L-17%)	3660/cumm(N-84%.L-13.7%
PLT	150000/cumm	150000/cumm	183000/cumm	179000/cumm
PBF	Red cells show anisochromia with anisocytosis WBC mature PLTs are adequate Comment: leucopenia	Normocytic normochromic WBC mature PLTs adequate Comment: leuocopenia		

Urine analysis	**Pus cell: 0-2/HPF** **RBC: nil** **Albumin: nil**
Serum creatinine	0.6 mg/dl
Serum electrolytes	Serum sodium: 134 mmol/l Serum potassium: 3.5mmol/l Serum chloride: 97mmol/l
Blood C/S	No growth
Bone marrow study	Hypercellular Reactive Marrow
Anti HIV 1&2	Negative

Serum calcium	8.5 mg/dl (8-11 mg/dl)
Serum ACE level	14 U/L (ref interval: 12-68 U/L)
ANA Anti-ds-DNA	Negative (sample value: 6.70 U/ml) (ref value: <10.0 U/ml-negative) Negative (12 U/ml , ref value: < 30 U/ml-negative)
ENA profile (Anti SM Ab, Anti SSA Ab, Anti SSB Ab, Anti SM/RNP Ab, Anti Acl-70 Ab, Anti Jo-1 Ab)	negative
C3 & C4 level	0.771 g/l (ref: 0.9-1.8 g/l) 0.251 g/l (ref: 0.1-0.4 g/l)

CXR P/A view

Normal study

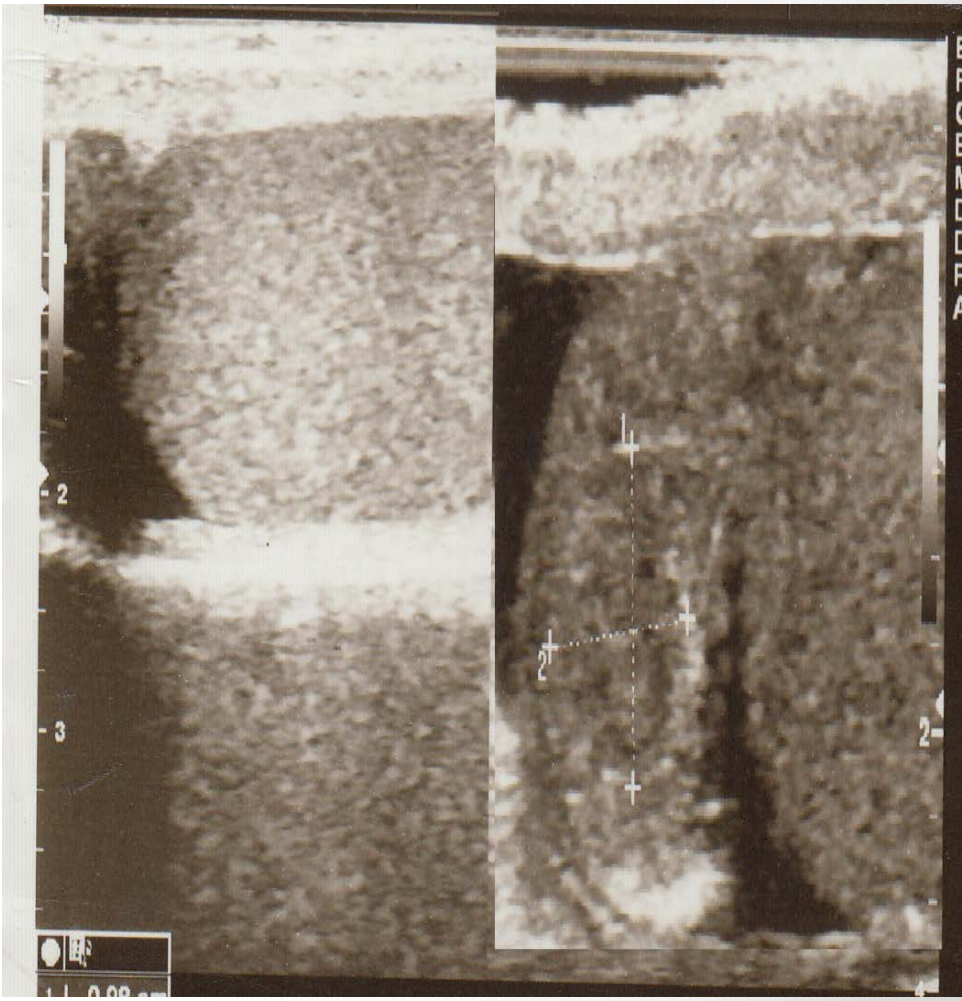


Ultrasonography reports

- **USG of W/A- normal study**

- **USG of scrotum- right sided epididymal mass**

  D/D: inflammatory lesion



FNAC from right epididymal lesion

- **Microscopic examination: smears show epididymal epithelial cells in clusters, a few histiocytes and lymphocytes in a proeitinaceous background**
- **No granuloma or malignant cell is seen**

- **Diagnosis: negative for malignant cell**

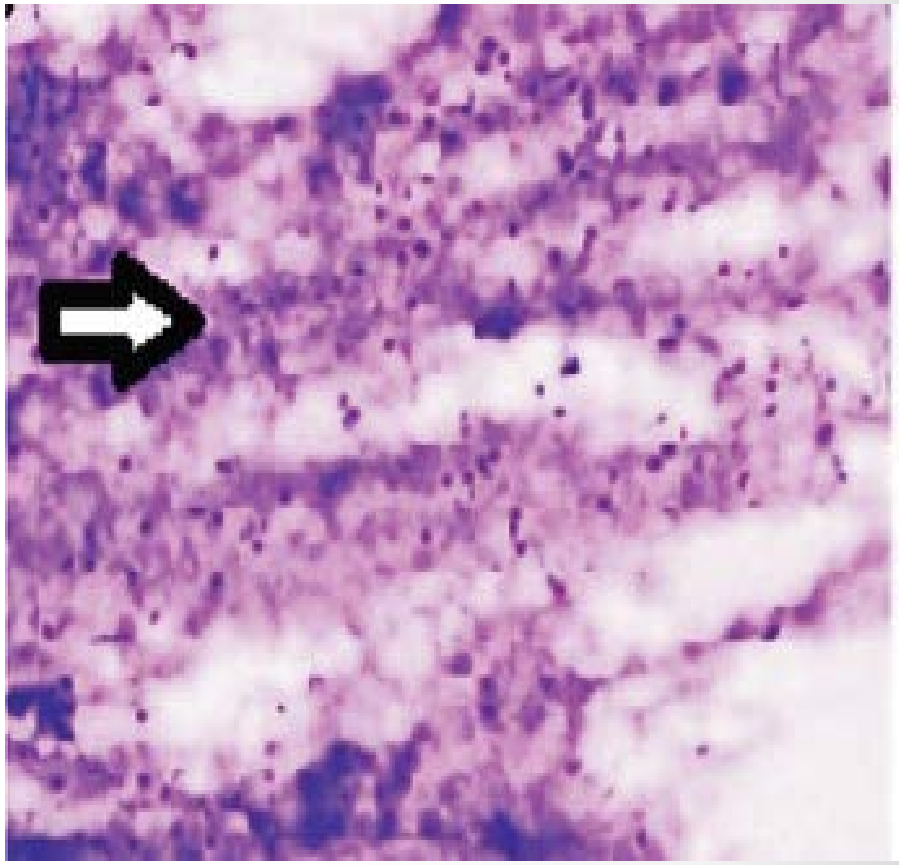
FNAC from skin, right side of face

- **Microscopic examination: sections of skin reveal thin epidermis. The dermis shows dense perivascular and peri adnexal infiltrate of chronic inflammatory cells. Collagen bundles are thick**
- **No granuloma is seen**
- **Diagnosis: non- specific inflammatory changes**

FNAC from lymph node

- **Microscopic examination: one section shows lymph node fragments: these reveal caseating tubercles**
- **No granuloma or malignancy is seen**

- **Diagnosis: lymph node: granulomatous inflammtion, histologically consistent with tuberculosis**



FNAC from skin

- **Section shows a polypoid piece of skin. The dermis reveal sinus tract lined by stratified squamous epithelium**
- **No granuloma or malignancy is seen**
- **Diagnosis: Sinus tract**

ENT Referral

- **For dryness of mouth**
- **Clinically no sialadenitis**
- **Prescribed tab pilocarpine thrice daily**
- **Symptomatic improvement**

Treatment & Response

- **Initiated Cat-1 Anti-TB chemotherapy with steroid**
- **Fever and vomiting subsided after 1 months**
- **Parotid swelling and neck swelling resolved after 15 days**
- **Orchitis resolved after 9 days**
- **Gained weight**
- **Little improvement of arthralgia and hyperpigmentation and abdominal pain**

Consultation with dermatologist

September,2016

- **?? Lichenoid drug reaction with hairy tongue**
- **Done some investigation**
- **Prescribed topical creams and vitamins-??improvement**

Skin biopsy from right pre auricular region	**Microscopic description : reveal unremarkable epidermis. Epidermal pigmentation appears increased. There is dense perivascular lymphocytic infiltration. Profuse free melanin & few melanophages are also present in the papillary dermis. Basal cells are degenerated at places. There is fibrosis in the dermis with destruction of adnexal structure.** **Consistent with ashy dermatosis**
Tongue swab for ME of fungus	**No growth of any fungus**

India trip…

(25th November,2016)

- **Follow up USG of W/A : SOL in the liver (?hepatoma)- could not be excluded**
- **SGPT : 100 U/L**
- **Arthralgia persisted.**
- **Burning sensation in the tongue**
- **Decided to go India , few investigation done-not available**
- **Prescribed methotrexate, hydroxychloroquine, folic acid**

Follow up

(8th December, 2016)

- ***Before Rx***

- ***After Rx***

Follow up

(8th December, 2016)

- **Skin lesion improved**

Skin lesion improved

- **No arthralgia**
- **No organomegaly**
- **No lymphadenopathy**

Follow up investigation

Hb gm/dl	12.1
ESR in 1st hour	10
WBC	11000/cumm (N-67%,L-26%)
PLT	310000/cumm

Final diagnosis

Disseminated tuberculosis (TB lymphadenitis+ lupus vulgaris+ bilateral parotid gland TB+ Tubercular epididymo-orchitis+ TB arthralgia) with oral moniliasis

Catch me
if you can

Thank
You!