A Case of Mycetoma Foot

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2nd year
MD (DVL)
NAME : xxx
AGE: 45 years
SEX: Female
IP No.: 201502243
OCCUPATION: Agricultural labourer
RESIDENCE: Nalgonda
DOA: 20-1-2015
DOD: 29-1-2015
CHIEF COMPLAINTS

A 45 year old female patient presented to out patient department of DVL with asymptomatic swelling of left foot with multiple solid elevated lesions containing openings discharging pus since 1 year.
HISTORY OF PRESENTING ILLNESS

The patient was apparently normal one year back when she developed a single swelling on the inner aspect of the left foot.

The size of the swelling gradually increased and similar new swellings appeared over the next 3 months.

Then the patient noticed openings in the lesions discharging white rice grain like material from a few lesions.
Then most of the lesions started to discharge the grain-like material with pus.

The patient then consulted a local doctor and used tab. Amoxycillin, tab. Aceclofenac and Soframycin ointment.

The patient was on irregular treatment with same drugs on and off for 9 months.

The patient gave H/O partial improvement of lesions.
The patient gave history of blunt trauma over the foot while working in the field, barefoot one year back.

There was history of fever on and off which was intermittent and of low grade not associated with night sweats since 1 month.

No H/O cough with sputum/chest pain.

There was no H/O pain or itching over the lesions.
No H/O associated bone or joint pains.

There was no H/O other skin lesions else where on the body.

There was no H/O difficulty in walking and limb movements except for partial restriction at left ankle joint.
Past history

- No similar complaints in the past.
- Not a known case of diabetes mellitus, hypertension.
- No history of pulmonary tuberculosis/bronchial asthma/atopy.
Personal history

- Diet: Mixed
- Appetite: Normal
- Bowel & bladder movements: Regular
- Sleep: Adequate
- Menstrual history: Regular menstruation, 5/28 days
- Addictions: Not addicted to smoking and alcohol
Patient is conscious, coherent and cooperative.

Patient was moderately built and nourished.

Patient had pallor, no signs of icterus, cyanosis, clubbing, lymphadenopathy and pedal oedema apart from swelling of left foot.
VITALS:
Blood Pressure: 120/80 mm Hg
Pulse Rate: 85/min
Respiratory Rate: 19/min
LOCAL EXAMINATION OF FOOT
Indurated swelling of left foot extending medially just above the calcaneum involving medial malleolus, instep of foot, medial half of dorsum of foot and dorsum of 1\textsuperscript{st} & 2\textsuperscript{nd} metatarsals and encroaching just above the medial half of ankle joint.
There was no local rise of temperature and tenderness.

Skin over the swelling was not pinchable.
There were multiple nodules with sinuses draining seropurulent discharge over medial aspect of left foot. There were also a few partially healed lesions intermingled with active lesions.
Other systems

- CNS: no motor deficit
  sensations intact
- CVS: S1 S2 heard
  no murmurs
- Respiratory system: Bilateral Air Entry-present
  Normal Vesicular Breath sounds heard
- Per Abdomen: soft
  bowel sounds heard
  no organomegaly
PROVISIONAL DIAGNOSIS:
1. Mycetoma foot
2. Botryomycosis
3. Actinomycosis
4. Osteomyelitis
Complete blood picture

- Hb: 10.3 gm%
- Total count: 5300/cu.mm
- Neutrophils: 35%
- Lymphocytes: 60%
- Eosinophils: 03%
- Monocytes: 02%
- Basophils: 0%
- Platelet count: 2.5 lk/cu.mm
# Liver function tests

<table>
<thead>
<tr>
<th>Test</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total bilirubin</td>
<td>0.51 mg/dl</td>
</tr>
<tr>
<td>Direct bilirubin</td>
<td>0.11 mg/dl</td>
</tr>
<tr>
<td>SGOT</td>
<td>21 IU/L</td>
</tr>
<tr>
<td>SGPT</td>
<td>12 IU/L</td>
</tr>
<tr>
<td>Alkaline phosphatase</td>
<td>125 IU/L</td>
</tr>
<tr>
<td>Total proteins</td>
<td>6.8 g/dl</td>
</tr>
<tr>
<td>Albumin</td>
<td>3.8 g/dl</td>
</tr>
<tr>
<td>A/G Ratio</td>
<td>1.3</td>
</tr>
</tbody>
</table>
Random blood sugar 73 mg/dl.
Serum creatinine 0.7 mg/dl.
Blood Urea 24 mg/dl
Sodium 136 mmol/L
Potassium 3.7 mmol/L
Chloride 98 mmol/L
HIV Non-reactive
HBsAg Non-reactive
KOH test- smear negative for fungal elements.

On direct examination, pus discharge showed pale coloured grains.

Grams stain- smear showed many pus cells and gram positive bacilli with branching filaments.

Culture of bacteria and fungus showed no growth after 15 days of incubation.
Histopathology

Sections showed aggregates of granules which are admixed with hyalinised amorphous material with peripheral radiating club like projections (Splendore-Hoepli material).
These granules are surrounded by inflammatory infiltrate composed predominantly of neutrophils and also eosinophils, lymphocytes, plasma cells and epitheloid macrophages.

Areas of hyperkeratosis, collagen fibres are also seen.
HISTOPATHOLOGY DIAGNOSIS:
Features are suggestive of actino-mycetoma left foot.
X-ray foot

- E/o soft tissue swelling on medial aspect of left foot
- E/o lucencies in shaft of 1st & 2nd metatarsals with mild expansion of shaft of 2nd metatarsal
  - Infective (actinomycetoma)
- No evidence of joint space narrowing
- Mild diffuse osteopenia of foot
FINAL DIAGNOSIS:

Based on
a) clinical features
b) grams stain and
c) histopathology,

ACTINOMYCETOMA
Before starting the treatment, all the routine investigations were done.

There was no H/O hard of hearing.
TREATMENT

WELSH REGIMEN:

} Inj. Amikacin 375 mg (1.5 ml)/BD + Tab. Cotrimoxazole DS (160/800 mg) BD for 21 days then only Tab. Cotrimoxazole DS BD for 15 days.

} Topical Fusidic acid applied twice daily.

} Tab. B-complex OD.

} Oral Haematinic supplements OD.
Then all the investigations were repeated after first cycle (36 days).
## Complete blood picture

<table>
<thead>
<tr>
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<th>Value</th>
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<tbody>
<tr>
<td>Hb</td>
<td>10.8 gm%</td>
</tr>
<tr>
<td>Total count</td>
<td>5300/cu.mm</td>
</tr>
<tr>
<td>Neutrophils</td>
<td>35%</td>
</tr>
<tr>
<td>Lymphocytes</td>
<td>60%</td>
</tr>
<tr>
<td>Eosinophils</td>
<td>03%</td>
</tr>
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<td>Monocytes</td>
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</tr>
<tr>
<td>Parameter</td>
<td>Value</td>
</tr>
<tr>
<td>----------------------</td>
<td>-----------</td>
</tr>
<tr>
<td>Random blood sugar</td>
<td>77 mg/dl.</td>
</tr>
<tr>
<td>Serum creatinine</td>
<td>0.8 mg/dl.</td>
</tr>
<tr>
<td>Blood Urea</td>
<td>23 mg/dl</td>
</tr>
<tr>
<td>Sodium</td>
<td>139 mmol/L</td>
</tr>
<tr>
<td>Potassium</td>
<td>3.9 mmol/L</td>
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<tr>
<td>Chloride</td>
<td>100 mmol/L</td>
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- Total bilirubin: 0.51 mg/dl
- Direct bilirubin: 0.11 mg/dl
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- Total proteins: 6.8 g/dl
- Albumin: 3.8 g/dl
- A/G Ratio: 1.3
As renal parameters were normal and no symptoms of hearing loss, then second cycle of welsh regimen was given.
Before Treatment (Day 0)  After Treatment (Day 72)
THANK YOU