Diabetic foot

Supervisor: Dr. Nashwan Mahjoob
Presented by: Sarah Muwaffaq
Patient profile

• Name: M.A.
• Age: 50 years old
• Occupation: labourer
• Residence: موصل/ حي الشفاء
• D.O.A: 11/1/2013
• D.O.I: 12/1/2013
• D.O.E: 15/1/2013
Chief complaint

• Toes swelling of the left foot for 10 days duration.
History of present illness

• Middle age man with type 2 uncontrolled diabetes mellitus & on insulin therapy

• presented as left foot swelling for 10 days, the condition started when patient`s foot burned by a hot floor before 3 months in Makka
History of present illness

• The condition continue to deteriorate as a discharge from a sinus in the big toe which was brown in colour & unpleasant odour with black discoloration of the foot.

• The sinus increased in depth & discharge continued until the inflammation arrived to the ankle & numbness developed with mild fever.
History of present illness

• Patient admitted to the hospital for further management at 11/1/2013

1) In the hospital the diabetes was controlled &
2) I.V antibiotics were given to the patient,
3) then surgical amputation of the big toe done for him.
Review of other systems

• Not remarkable except for polyuria.
Past medical history

• Diabetes mellitus since 30 years.
• Heart failure since 7 years.

Past surgical history

• Cholecystectomy: 12 years ago.
• 2nd toe amputation before 5 years.
Drug history & Allergy

- Insulin 30 unit in the morning & 30 unit in the evening.
- Sublingual nitrate
- Isosorbid dinitrate 10 mg 2×1
- No known allergy for given medications.
Family history

• His father was having diabetes mellitus.

Social History

▪ Moderate socioeconomic status.
General Examination

• Middle age man looks conscious, alert, comfortable, with good body build, not dyspnoic, not jaundiced & not anaemic.

• Afebrile, normal mouth, no L.N enlargement & has cannula on the dorsum of the hand.
Vital signs

- Pulse rate: 80 BPM
- Blood pressure: 120/80 mmHg
- Temperature: 37°C
- Respiratory rate: 15 breaths/min
Local examination revealed ulcer of foot

Inspection

- Site: planter surface of big toe
- Size: 1.2cm
- Shape: rounded
- Edge: sloping
- Discharge: brown colour
- Odour: bad odour
Local examination revealed:

- **Ulcer**

  - **Base:** indurated
  - **Depth:** 1 cm
  - **Relation:** fixed
  - **Tenderness:** -ve
  - **Temperature:** normal
Local examination

Palpation

- Sensory level: touch & pain were –ve distally till the ankle joint.
- Motor & reflexes: normal
- Arterial examination: posterior tibial, dorsalis pedis, popliteal & femoral arteries all were positive.
Other systems were normal
Investigation

- Investigations:
  - Fasting blood sugar.
  - Sugar in urine
  - Ketone in urine
  - HbA1c
  - Echo
  - ECG
  - Lipid profile
  - RFT
Culture & sensitivity – not sent !!!!!
fasting Blood Sugar : normal
Doppler US of left As & Vs are normal
Investigation

• X-ray
Diabetic foot

Diabetic foot is related to three factors:

1. Trophic changes from peripheral neuropathy.
2. Ischemia as a result of atheroma.
3. Low resistance to infection because of excess sugar in the tissues.
Diabetic foot
Diabetic foot

• The neuropathy impairs sensation and thus favours the neglect of minor injuries and infections.

• Motor involvement is frequently accompanied by loss of reflexes and deformities (neuropathic joints).

• Thick callosities develop on the sole and bad foot care may allow the entry of infection.
Diabetic foot

Major arterial disease is associated if there is:

• No palpable dorsalis pedis & posterior tibial arteries.
• Presence of rest pain.
• Presence of intermittent claudication.

• Bacteriological examination is made if any pus and a radiograph may reveal the extent of any osteitis.
Risk factor
1. Tight shoes
2. Nail cutting
3. Increased weight
4. Drying skin
5. Deformity of foot
6. Walking on foot without support
Diabetic foot

Treatment consists of:

1) Bringing the diabetes **under control** by diet and drugs.

2) A rapid spread of infection requires drainage by **incision** and the **removal** of any obviously dead tissue.
Diabetic foot

Sometimes, especially with digits, amputation can be avoided. Conservative treatment involves:

• Keeping the affected part **absolutely dry**.
• Exposure to the **air** and the use of a fan may assist in the **desiccation process** and may relieve pain.
• The limb must not be heated.
• Local pressure areas, e.g. the skin of the heel or the malleoli, must be **protected** if fresh patches of gangrene are not to occur in these places.
• Occasionally, the lifting of a crust or the removal of hard or desiccated skin helps demarcation or releases pus and relieves pain.
Prevention of diabetic foot
1) ?
2) ?
3) ?
4) ?
5) ?
6) ?
1) Mechanical control
2) Metabolic & hemodynamic control
3) Vascular control
4) Microbiological control
5) Wound control
6) Educational control
Thank you for listening