1) Venous Leg Ulcer :-

- Ulcer due to venous disease
- Mixed ulcer, venous disease along with arterial occlusive disease

Cause :-

- Venous disease :- Superficial incompetence
  Deep incompetence
  Obstruction
- Arterial ischemic ulcer
- Vasculitic ulcer
- Traumatic ulcer
- Neuropathic ulcer
- Neoplastic ulcer
- Infection

Pathophysiology :-

(AVP) Ambulatory venous hypertension is the only accepted pathology.
AVP more than 90 mm Hg is associated with venous ulcer
Ulcer never occur at AVP less than 30 mm Hg ∴
Ulcers form due to venous reflux which is inc in venous pressure also known as venous hypertension.
It result from incompetent valves & obstruction
Blood pools in areas of vicinity & ulcer develop.

→ Primary valve incompetence of sephanous vein
Incompetence of perforating veins
Incompetence or obstruction of deep veins.

Clinical features :-

- Gently sloping edge
- Floor contain granulation tissue covered with slough & exudate
- Common areas = muscles of Calf and ankle (medial side).
- In post thrombotic syndrome, ulcer can develop at any side.
- Ulcers rarely extend to upper calf or foot so consider other diagnosis as well.
- Itching
- Pigmentation (due to Haemosiderin & melanin)
- Inflammation
- Induration of skin

Investigation :-

- Full examination of front & back with pt standing to check varicosities and tronchal incontinence. incompetance.
- All pt should hv pulses palpated.
- Do doppler examnt
- Check sensation & proprioception to exclude neuropathy.
- Examination of hands & Joints to exclude rheumatoid arthritis or osteoarthritis.

=)

- Duplex scan to assess superficial and deep veins status
- Full blood count (iron def anemia & anemia of chronic disease)
- Blood glucose
- ESR
- CRP
- Sickle cell test
- Antibody screening (To check autoimmune causes like SLE)
- Measure doppler pressure in case of absent pulsality
- Biopsy to confirm malignancy (Marjolin ulcer, which is squamous cell carcinoma can develop chronic long standing ulcer)

Management :-

① Compression

Dec varicose Hypertension by compression ~~through th~~ through

classic 4LB (4 layer bandaging system)

1) Orthopedic wool :- Distribute pressure, absorb & exudate
2) Cotton crepe :- smooth wool & hold it in place.
3) Elastic bandage :- 1st Compressive layer
4) Cohesive bandage :- 2nd compressive layer, inc stiffness

Ideal pressure is 35 - 40 mmHg

⇒ Compression of mixed ulcer is done as same with ankle brachial pressure index (ABPI) of 0.5-0.8

② Superficial venous ablation or surgery,
Reduce Hypertension by treating superficial reflux

③ Medical treatment :-
Pentoxifylline
Biological dressing like collagen meshes, fetal keratinocytes

④ Pinch graft
⑤ Ulcer excision
⑥ Antibiotics do not speed up healing but prevent from infection

Q2)

68 yrs old woman complains of sudden onset severe pain in thigh, calf and leg for 4 hr duration.

She lost sensation in mid thigh distaly, cannot move foot or leg hence, skin very cold, she looks pale, She had MI 6 week ago

1) Diagnosis :-

Acute limb ischemia at femoropopliteal Junction

iii) Investigation :-

History - examination
CT angiography - Thrombus (Mural)
Doppler

iii) Management :-

① Embolectomy :-

Immediate administration of 5000 U IV Heparin
Surgical exploration of femoral artery
Forgarty balloon catheter to remove embolus
Post op Heparin therapy
Warfarin to reduce future risks

② Intra-arterial thrombolysis :-

If ischemia not severe
Tissue plasminogen activator (TPA) is infused through catheter and regular angiograms are used

Contraindication :-

Age > 80
Recent stroke
Bleeding diathesis
Pregnancy.

Q5

30 yrs men present with swelling and severe pain in his right leg 4 dys after sustaining gunshot just below his knee. Pulse 120/min BP 80/50. There are blebs Tenderness, and palpable crepitus.

a) Diagnosis

Gas gangrene

b) Flora

Clostridium perfringens.

c) Treatment

Urgent wide surgical excision of all necrotic tissue

High dose antibiotics. (penicillin, Benzyl penicillin)

Metronidazole

Amputation

10, Nte on

Necrotizing fasciitis

Termed as fournier's Gangrene

Rapidly spreading infection that produces necrosis of subcutaneous tisive and overlyig skin

Cause

- B-Hemolytic streptococci
- Staph aureus
- Clostridium
- Arobes & anaerobes
- Klebseilla
- Pseudomonas

Skin turn blue and black

Hypovolemia and septic shock occur

Diagnosis
- Clinical
- ↑ creatinine kinase
- Biopsy

Treated

Administer in ICU

Monitor cardiac status

Resuscitation

Oxygen supplementation

ETT intubation

High dose penicillin G + Broad spectum antibiotics

IV cephalosporin + metronidazole

Annual

Past 2016

Q2

1) 30 yrs old motorcyclist came to emergency with RTA. Discuss primary survey.

2) 50 yrs old hypertensive arrives in emergency with severe pain in right leg for 2 hours. His right foot is pale and cold.

A) BDD

DVT. Cellulitis

B) Investigation.

History

Examination

Colour flow duplex ultrasonography

Venography

MRI and CT

Blood Test → Antithrombin III

Protein C, S

Factor V leiden

Q7:-

62 yrs old female with swelling, redness, foul smelling discharge from her right foot for last one week. There is discolouration of skin on lat tendon of foot involving little toe. H/o High grade fever, for last 3 days. Known case of DM & uncontrolled on regular insulin

a) Diagnosis

Diabetic foot

b) Pathologic factors

Multi factorial

① Neuropathy → Sensory

↓

Motor

Darkness and muscle wasting

Foot deformities

Abnormal gait

Ulceration

Loss of pain sensation

Unnoticed trauma

Callous formation

Tissue necrosis

Ulcer formation

② Vasculopathy

Macro & micro angiopathy
- Macro - atherosclerosis
- Micro - the thickness of basement membrane + Capillary damage

③ Immune dysfunction

- Polymorphonuclear leukocyte migration
Phagocytosis
Intracellular killing
Chemotaxis

Clinical

Diminished sensation
Warm, skin, pulsations ~~present~~ absent
Ulcers
Callus formation
Abscess formation
Osteomyelitis
Sepsis
Pain in, cold foot

Classification

Grade	
0	Intact skin / foot at risk
1	Superficial ulcer
2	Deep ulcer to tendon, bone, joint
3	Deep ulcer to abscess or osteomyelitis
4	Foot gangrene
5	Whole foot gangrene

Management

1) General
   - Mechanical control
   - Metabolic control
   - Microbial control
   - Vascular control
   - Education

2) Specific
   - Removal of callus
   - Eradication of infection
   - Reduction of weight bearing forces.
   - Foot elevation
   - Removal of excess keratin
   - Radiograph to check penetration
   - Bacterial swab and culture of excised tissue.

3) Medial
   - Broad spectrum antibiotics
     - Amoxicillin, flucloxacillin, metronidazole
   - Total contact plastic cast
   - Amputation.

Q no 8

General anesthesia triad.

- Analgesia
- Anesthesia
- Muscle relaxation