Peripheral A. Dis. 1995: Buerger's a.j.s. 2004

1. 2010
2. 2008

- 30 years old lady 2 dry gangrene
- Rigid Index finger

2008: Non-Sx Mnx of lower limb claudication


2005: Roque t ulcer

2012: Causes of chronic leg ulcers

- Assess & Mnx of varicose veins
- Newer modalities
Coalescence of Quanta: 2014 - Ch - Dx: Mnx

Tumours of thyroid
(1997) Signs of Primary thyrotoxicosis
(1999) Pathol + Mnx of S + N.

Inv. + D + A + Mnx of C.
Breast (1999)

Pathology of breast abscess

2002 = 40 year M

Breast surgery per nipple

2008 = Breast conservation surgery

Mx of 8 x 8 mass in 18 year old

2009 = Cystic lesions of breast

Mx in 35 year old

2010 = Mx of 5 x 5 adrenal mass

2013 = Types and causes of nipple discharge

Examine, 1 cm + 7 to 8 cm breast mass + mobile LN
Bleeding peptic ulcer
(1996) Complication of peptic ulcer

Mix of perforated duodenal ulcer
(2000)
Important Dates/Events

Causes of ULS
- Assemplmix of
- Raynauds
- Thoracic outlet

August causes of gangrene

Causes of difference
- Dry & wet

September

October
Peripheral Vascular Disease

Upper limb:

- Raynaud's disease and syndrome
- Embolic phenomenon
- Thoracic outlet syndrome
- Trauma
- Sycco's disease
- Axillary vein thrombosis
- Vasculitis syndromes:
  - Takayasu's disease
  - CREST syndrome

Causes of ULR:

1. Raynaud's phenomenon: Bilateral episodic digital ischemia of upper limb.
   - Raynaud's disease
   - No other associated disease
   - Primary (RP)

Secondary:

- Atherosclerosis
- Cerebral atherosclerosis
- SLE
- Scleroderma
- Carpal tunnel
- Vibratory tools

Raynaud's syndrome associated disorders:

For e.g.: CREST
Notes of Dr. Ravindra Goswami (IAS-2015, AIR-153)

Eckovation App Group Code: 873541

Disease persist but symptoms subsided

Sympathetic ganglia to study below the T13 ganglion
depress release of norepinephrine to afferent fibers of sympathetic nervous system

Nociception

Conduction: 

1. Hyperesthesia
2. Hyperalgesia
3. Allodynia
4. Hypalgesia

Conduction blocks: 

1. Nerve injury
2. Tumor
3. Intervening tissue
4. Radiation

Central: 

1. Structural
2. Chemical

Peripheral: 

1. Enteric ganglia

Pharmacological: 

1. Antihypertensives
2. Antidepressants
3. Anticonvulsants
4. Beta-blockers

Conservative: 

1. Reassurance
2. Physical care
3. Occupational therapy
4. Psychotherapy
5. Medication

Surgical: 

1. Sympathectomy
2. Ligation
3. Resection

Supportive: 

1. National parks
2. Community care
3. Psychological support

Rehab: 

1. Occupational therapy
2. Physical therapy
3. Rehabilitation
4. Vocational training

Symptoms: 

1. Paresthesia
2. Hyperhidrosis
3. Erythema
4. Edema

Diagnosis: 

1. Physical examination
2. Imaging studies
3. Nerve conduction studies
4. Biopsy

Diagnosis criteria: 

1. Symptomatic
2. History of trauma
3. Nerve compression
4. Hypersensitivity

Treatment: 

1. Conservative
2. Surgical
3. Rehabilitation
Thoracic outlet syndrome

- Sternum anterior, spine posterior, first rib laterally
- Contents: Brachial plexus, subclavian artery

Causes of Thoracic Outlet Syndrome:

1. Ribs
2. Muscular Surgery

T = Transverse process of C7 (Long)

H = Hyperabduction Syndrome - Compression by pectoralis minor

O = Operative scars

R = Cervical rib or extra rib

A = Anomalous first rib

C = Costocervical synd. (Compression b/w clavicle and first rib)

I = Insertion of scalenus anomalous

C = Callus malaligned # clavicle

CF = Young female

Features of UCE + Temp. Pallor, Excessive Sweating, Splintes haemorrhages Absent peripheral pulses

3. Features of Ulnar nerve weakness

- C6/7 synd. = Introssei palsy
- Promet = Adductors poli's palsy
Gangrene

- Macroscopic death of the tissue with superadded putrefaction

1. Acute

Acute Life-threatening Gangrene

- Atherosclerosis
- Raynaud's
- Diabetes
- Thoracic outlet obstruct
- Trauma
- TAO, PAP, GCA
- Syphility

2. Neurological - Hemiplegia, paraplegia, bed sore

3. Trauma - Direct, indirect

4. Physical Cause - Sun rays, radiation, AEC

5. Drugs - Eegotamine

6. Diabetic

7. Acute Life-threatening Gangrene: Boil, Caeae and Cane

8. Signs
   - Loss of Perfusion
   - Loss of Colour
   - Loss of Temperature
   - Loss of Sensation
   - Loss of Function

   Special Types
   - Typhoid Ulcer
   - Coma of typhus
   - Malnourished child
   - Mouth - Borelli
   - Th. Metegri
   - Ryles tub

   Hereditary cold Extremity
   Persistent cyanosis
   Mild Non Progressive
   Acute cyanosis
Max of Inadequate Intraarterial Injection

Do not remove the needle

Injection 5ml of 2% lignocaine or 2% Papavaren

 Dilute heparin (Intra arterial)

Intra arterial Thrombolysis using Streptokinase

Dr Lumbral

Bae cerebral Peces block

Sympathetic Spasm

Dry
- Chronic occlusion
- Di'ne of demarcation
- Collateral
- Crepts, Odour ±

Cause = TAO, Atherosclerosis

T/t - Conservative Amputation

Wet
- Sudden
- No
- No collateral
- Crepts, Odour ±
- Swelling
- Eclaves
- Crush Injury
- Major Amputation Necessary

Group Code: 873541
Acute Arterial Occlusion

- Embolism
- Thrombosis

CIF = 5 P = Pain, Pallor, Paresis, Pulselessness, Paraesthesia

Sign = Cold peripherally
- Limb Pallor
- Poor Capillary Return
- Positive Buerger
- Pulses absent

Investigation:
- Doppler
- DSA

TIP
- 1. Angioplasty: In short, stenotic lesion in large vessels
- 2. Embolectomy: Via CFA and Fogarty catheter
- 3. Thrombosis: Acute or chronic
PVd > Aneurysm

ULI → d&i

Acute

Acute Arterial Occlusion

Chronic

- Buerger
- Atherosclerosis

Meaning of Acute Ischaemic KIWB.

Anticoagulant: 10 K Unit Heparin IV

Find the cause

Blood count, Echo, ECG, Cholesterol

Angiography

- Dyeing vessels
- Angioplasty
- Thrombolysis
- Embolectomy

- Thrombus
- Embolus
- Thrombosis
- Embolectomy

Streptokinase in vessel care
Lower Limb Ischaemia

Causes
- Chronic
  - Atherosclerosis
  - TA (Takayasu's)
  - Collagen vascular disease
  - Diabetes
- Acute
  - Thrombus
  - Embolism
  - Trauma
  - Anseurysm

Risk factors
- PAD
- Smoker
- Male
- Older
- Known DM
- Hypercholesterolemia
- Hypertension
- Elderly
- Rashes

Pain
- Intermittent Claudication
  - Rest Pain

Classification
- Grade
  - I - Apper - Disapp
  - II - Apper - Has to stop
  - III - Has to stop

Non-Healing ulcers
- Congestive patch

4. Impotence in Kereihe's Syndrome (+ Glycocalcin)

Cold, numb etc.
- Class:
  - Mild: Complete TMT, AP > 50 mm Hg
  - Moderate: Can't TMT, AP < 50 mm Hg
  - Severe: Can not do TMT, AP < 40 mm Hg
**Signs**

**Inspection** - comparison with normal limb.

**Palpation** - 
- fever above - cold, loss of sens, edema
- pulses - pulse chart & edema central pulse
- Buerger's postural test - elevation
- capillary refill test - >2 sec.

**Auscultation**

**Buerger's**

1. Age 20-40
2. Exclusively male
3. Ed smoking induced vasospasm and CO 2 causes damage

**Atherosclerosis**

- Endothelial injury and proliferation of intimal cells
- Lipid plaque
- Atheromatous plaques
- Medium and large
6. Upper limb may be involved

7. Vessel wall may be thickened

8. BP - Normal in normal limbs, decreased in diseased

9. Superficial migrating thrombophlebitis may be seen

10. Raynaud's may be seen

11. Auscultation - Beat not heard

12. Angiography - Cork screw pattern

P - Progressive
R - Regional
I - Inflammatory
S - Segmental
O - Occlusive
N - Nonsclerotic
**Inn.**
- **Blood:** CBC, lipid profile, homocysteine, Protein, and s-cref, APLA

- **Radiology:**
  1. Doppler = Ankle Brachial Pressure Index < 1
  2. Duplex scan = Boc - yield Anatomic and flow

**PDA:** Biphasic or monophasic disease patterns

3. **Angiography**
   - Checklist: LACTEC
     - Lactic acidosis
     - Ani-conjugate
     - Creat.
     - IV fluid

- Trans-Jenoral
- Postangiography
- Digital subtraction angiography = for large vessels only
  - DSA

4. **MRA angiography**

5. **CT angiography**

6. **CO2 angiography**
1) To relieve pain
   - Analgesics
   - Buerger's position (Head end elevation)
   - Buerger's exercise
   - Heel raise

2) To arrest progression of disease
   - Stop smoking
   - Regular exercise, & obesity & BP
   - Avoid fatty meals
   - Statins

3) Medical max
   - PDE-2 Inhibitor
   - Blood viscosity
   - Procyclines (PG II)
   - PDE-3 Inhibitor

4) Chemical sympathectomy
   - End of phenol in scapes beside
   - the bodies of L2, L3, L4.

5) Injection using LP needle and into the lumbar fascia to be done in X-ray control

6) Surgery in Buerger's
**A** Lumbar Sympathectomy

Ind.: Rest pain, cutaneous ulcers

Procedure: Extraperitoneal, preganglionic

Sympathectomy

Vasomotor tone is reduced so vasodilation leads to pain relief and ulcer healing.

**B** Aortoiliac aneurysm

**C** Aortoiliac disease

B. Bypass graft

C. Graft, shunt graft

**D** Aortoiliac endarterectomy

For short segment larger artery however bypass is preferred.
2) Iliofemoral
   - Bypass
   - Angioplasty using balloon catheter

3) Femoropopliteal - Bypass

4) Profunda femoris - Profundoplasty