Surgery indicators

L: Emergency in urology

Renal stones:

1. Refractory pain.
2. Associated fever. (Pyelonephritis)

3- Renal impairment (solitary kidney obstructed by a stone, bilateral ureteric stones)

3. Obstruction unrelieved (not to exceed 4 weeks)
4. Personal or occupational reasons

Renal trauma:

1- Persistent bleeding (persistent tachycardia and/or hypotension failing to respond to appropriate fluid and blood replacement)
2- Expanding Peri-renal hematoma
3- Pulsatile Peri-renal hematoma

L: Adult Urinary Tract Disorders

indications for surgery in BPH

1- acute Urinary retention
2- Hydronephrosis
3- UTIs
4- Severe symptoms

L: PAD

Indication of surgery: (STIR)

1- Severe claudication
2- Tissue necrosis
3- Infection
4- Rest pain.

L: Cardiac Surgery Disease

Indication for CABG:

1- **Failure of medical therapy** or percutaneous intervention. (Angioplasty balloon dilatation and stenting.)

2- **Left main coronary artery** disease with narrowing more than 50% .

3-**Proximal LAD & proximal Cx** more than 70%.

4-**Three-vessel** disease with left ventricular dysfunction.

5-**Mechanical complications** of myocardial infarction.

6-Associated **valve disease**; (patient with IHD + valve problems = refer to surgery.

Mitral Stenosis:

PCI (Balloon valvuloplasty) if: Moderate to severe stenosis with valve morphology that favor PMBV:

1. No atrial thrombus

2. No mitral regurgitation

3. Valve is pliable and not calcified.

Commissurotomy or Mitral valve replacement:

1-patient not candidate for PCI.

2-Severe pulmonary hypertension, PAP > 60mmHg

Mitral regurgitation:

REPAIR!! If not possible, replace.

- Why we do intervention for MR? → prevent LV remodeling+relief symptoms.

CLass I	-Symptoms[10] -When put patient on treadmill and BP↓ -EF dropped by 60% -LV dysfunction/ LV dilation(size).
Class IIa	Atrial fibrillation or pulmonary hypertension. CLASS IIa are Asymptomatic b/c no change in LV size.

aortic stenosis:

REPLACEMENT.

- **Indications for surgery:**
  - 1.Symptoms 2.Severe aortic stenosis (assessed by echo)

CLASS I[11]	• **Symptomatic[12]** • **history of CABG or other surgical disease** • **EF dropped < 50% (LV dysfunction)**
Class IIa	LV dilation (size) or pulmonary hypertension.
- **CLASS IIb**	when put patient on treadmill >↓BP. Or severe valve calcification and rapid progression.

Aortic regurgitation:

Replace or repair.

- **Indications for surgery:**
  - Symptomatic patients - progressive left ventricular dilatation.

- **CLASS I**	• **Symptomatic[13]** • when put patient on treadmill and BP↓ • **EF dropped < 50% (LV dysfunction)**
- **CLASS IIa[14]**	LV dilation(large size) or pulmonary hypertension.
- **CLASS IIb**	LV dilation(size)-not as large as IIa class.

When to use tissue valves?

Old patients above 60.

Patient with contraindication to anticoagulants i.e. bleeding disorders

Non-compliant patients to anticoagulants e.g. psychiatric patients

Pregnant woman

Surgery in Endocarditis

If not relieved by Antibiotic then we start surgery for mainly 4 cases:

1-Heart failure.
2-Uncontrolled Infection (enlarged vegetation, abscess)
3-Prevent Embolism.

Thoracic Aortic aneurysm:

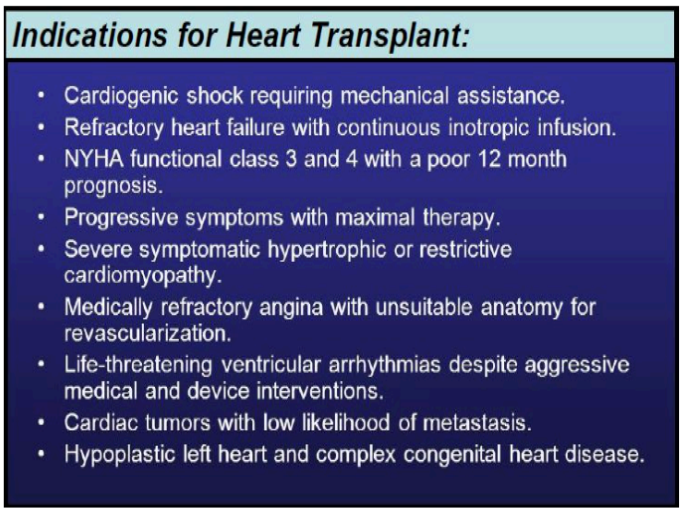
When do we intervent? (risk of rupture)

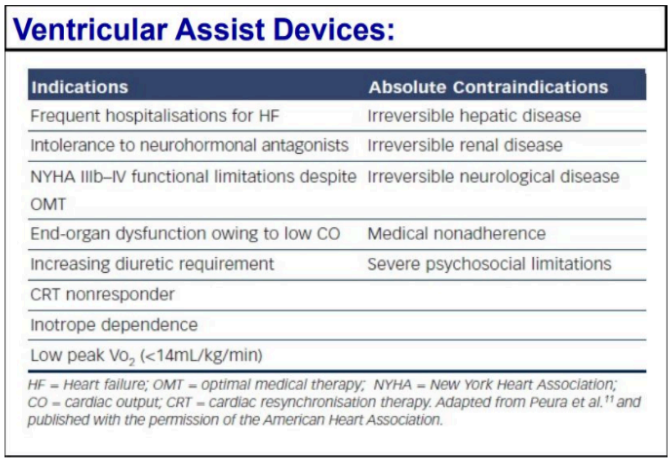
Ascending aorta aneurysm → more than 5.5 cm

Arch of aorta aneurysm → more than 6 cm (now it's 5.5)

Descending aorta aneurysm → more than 6.5 cm

Heart failure:





Contraindication for heart transplantation:

1-Pulmonary hypertension (not contraindicated by itself but its value is very imp)
2-Active infection
3-Systemic disease
4-Elevated creatinine > 200 µmol/L
5- Psychosocial (substance abuse, smoking, medical noncompliance)
6-Malignancy (within 5 years)
7-Morbid obesity >140% ideal body weight
8-Marked cachexia <60% ideal body weight
9-Osteoporosis
10-Diabetes mellitus with end organ damage
11-Peripheral or cerebrovascular disease

Indications for Arrhythmia:

Only for **Atrial fibrillation** (by ablation)

L: Common thoracic diseases

Lung abscess:

Indications of resection:

Failure of medical RX
Giant abscess (>6cm)
Hemorrhage
Inability to rule out carcinoma by H&Px (eg, old smoker pt, unexplained weightloss ,SOB)
Rupture with resulting empyema

Bronchiectasis:

Surgical indications:

- Failure of medical Rx
- Unilateral localized disease
- If bilateral, lung transplantation is necessary
- cystic dilation not cylindrical
- Non-perfused (by V/Q scan) : Most cystic types are non perfuse, while most cylindrical are perfused

TB:

Surgical Indications:

Failure of medical Rx **(Multidrug resistant)**
Destroyed lobe or lung
Pulmonary hemorrhage **(emergency)**
Persistent open cavity with + ve sputum
Persistent bronchopleural fistula (persistent pneumothorax)
Empyema

L: Esophageal diseases

GERD:

Anti-Reflux Surgery:

1-Failed medical management

3-severe esophageal injury (eg: ulcers, hemorrhage, stricture, +/-Barrett's esophagus)

4-respiratory problems as a result aspiration of gastric contents(eg; pneumonia)

5-Atypical symptoms (asthma, hoarseness, cough, chest pain, aspiration) and reflux documented on 24-hour pH monitoring

barrett's esophagus:

High grade dysplasia -> esophageal resection

Low-grade dysplasia-> Endoscopic mucosal resection

esophageal perforation:

The most critical variable that determines the surgical management of an esophageal perforation is the **degree of inflammation surrounding the perforation**.

(large perforation and minimal inflammation < 24h.) = surgical repair
(small perforation and progressive inflammation>24h.) = conservative treatment

L: Portal hypertension and surgical liver disease

Liver Resection Indications:

Benign tumors:
adenoma. Why? It can turn to HCC / has High risk of rupture and bleeding

malignant:
1-HCC
2-Cholangiocarcinoma
3- Metastasis: colorectal cancer metastasis > **it improves survival in colon cancer**
imp note: never do liver transplant after resection due colorectal cancer liver metastasis.

L: Pancreatic diseases

Pseudocyst: Observe for 6-12 weeks (50% resolve spontaneously)

Surgery (drainage) indications:
-if not change after 12 wks. >Increase risk of complications
-Infection (external) "at any time even before 12 wks. + Antibiotics"
-Symptomatic (internal) "from the stomach by cystogastrostomy"
- > 5 cm (internal)

L: Anorectal conditions

Hemorrhoids:

Grade IV (incarcerated, irreducible prolapse) >> immediate surgical intervention.

-Munira alhussaini