

ACUTE DECOMPENSATING HEART FAILURE



SYMPTOMS
AND
TREATMENT

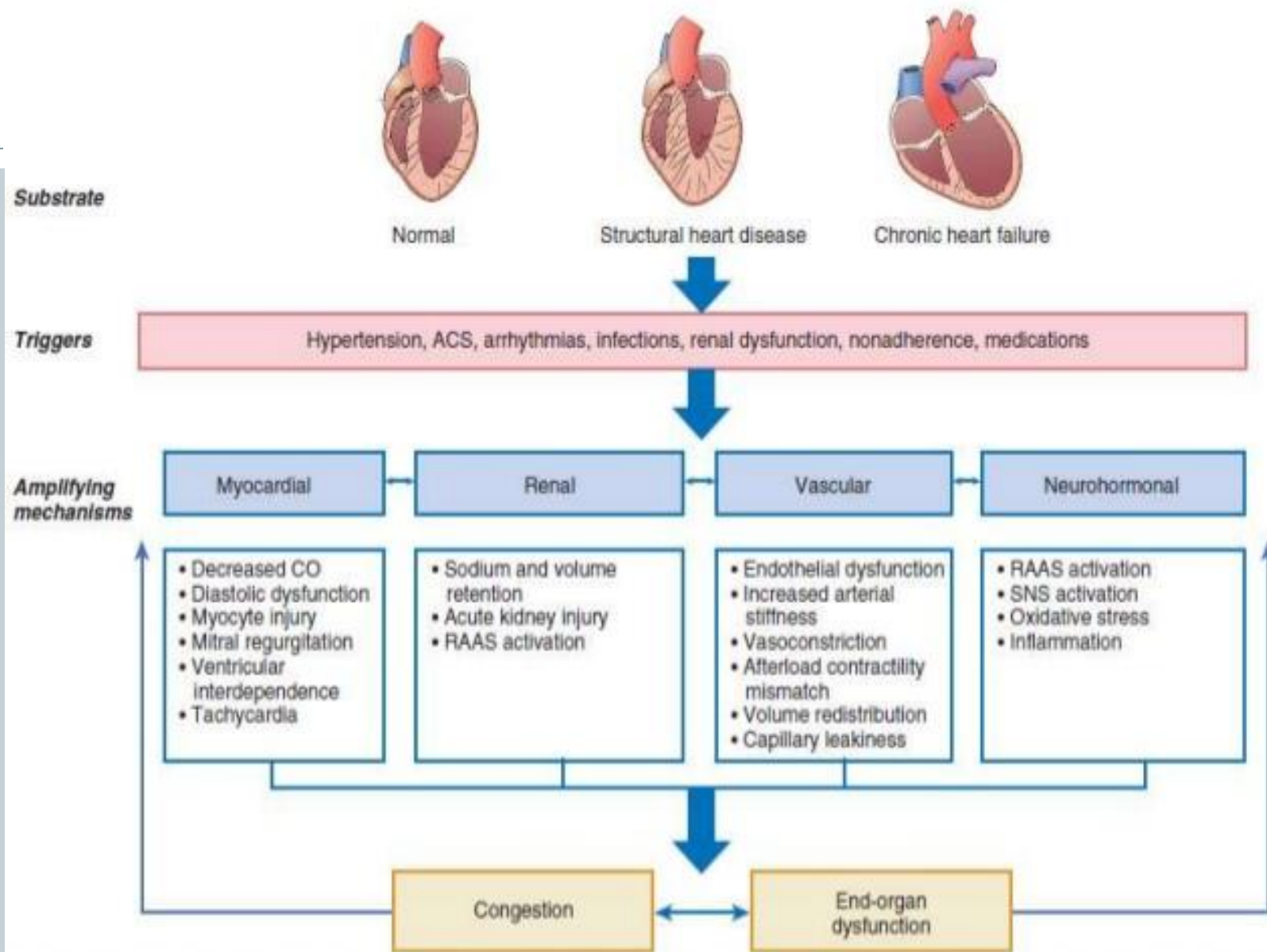
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ACUTE HEART FAILURE DEFINITION



“The new onset or recurrence of symptoms and signs of heart failure requiring urgent or emergency treatment and resulting in seeking unscheduled hospital care.”

Many patients may have a gradual worsening of symptoms that reach a level of severity necessitating urgent care.

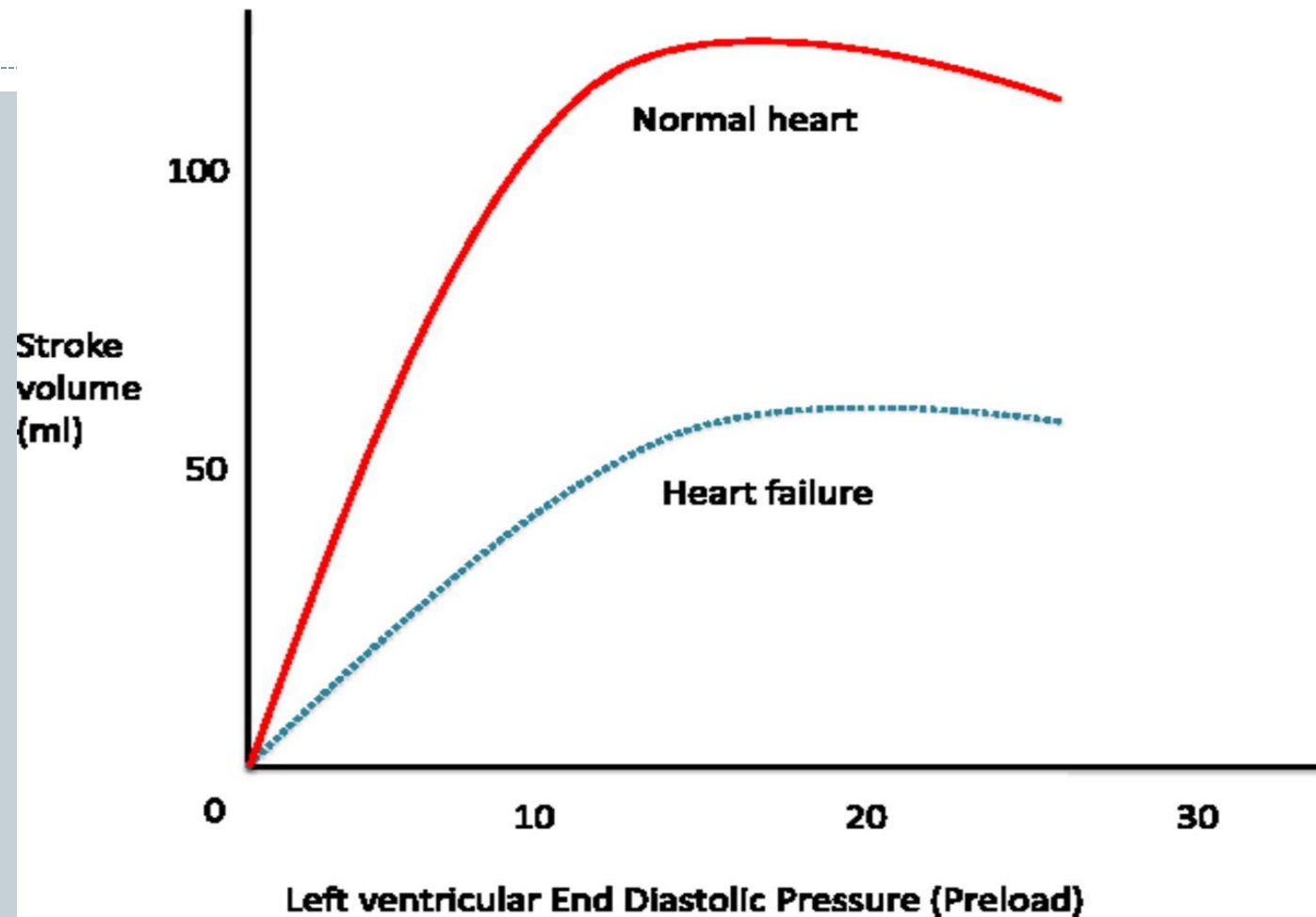


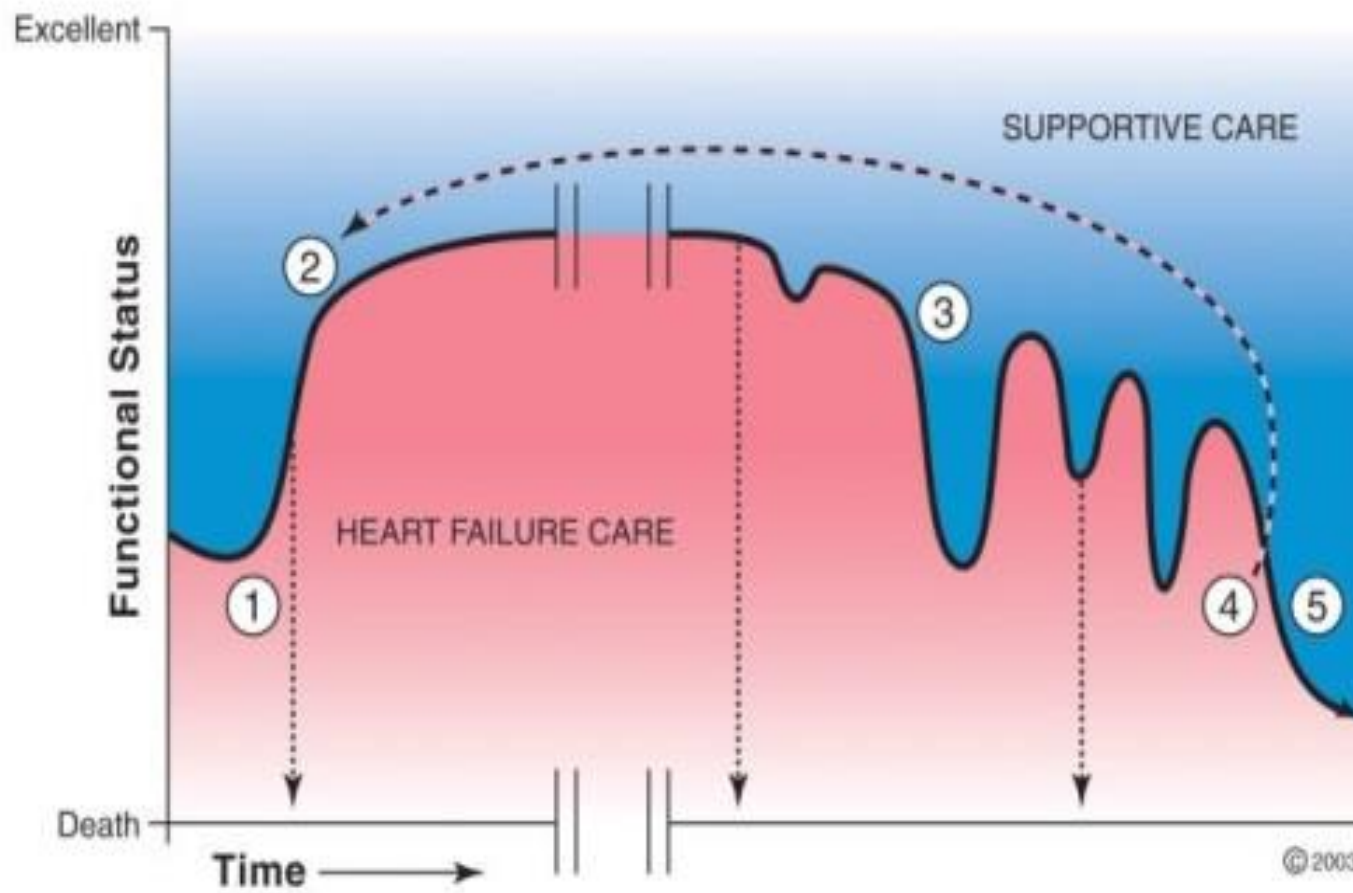
CO-MORBID CONDITIONS ASSOCIATED WITH AHF



- Hypertension
- Coronary Artery Disease
- High Cholesterol
- Diabetes Mellitus
- Lung Disease, eg COPD
- Atrial Fibrillation
- Obesity
- Renal Failure
- Anaemia

FRANK-STARLING MECHANISM







SYMPTOMS

CATEGORIES OF SYMPTOMS



- **Warm and dry**
 - Well perfused
 - No evidence of fluid overload
 - No evidence of decompensating heart failure
- **Warm and wet**
 - Well perfused
 - Evidence of fluid overload
 - Decompensating heart failure
- **Cold and dry**
 - Poor perfusion
 - No evidence of fluid overload
 - Poor cardiac output
- **Cold and wet**
 - Poor perfusion
 - Evidence of fluid overload
 - Decompensating heart failure with a low cardiac output

Breathlessness



- Worsening chronic heart failure
- Chest congestion, pulmonary oedema, pleural effusions
 - Cough
 - Frothy pink sputum
 - Wake up at night breathless/panicky
 - Can't lay flat

Other causes of breathlessness

- Chest infection
- Pulmonary Embolus
- Anaemia
- Anxiety
- Cancer
- Lung disease
 - Asthma
 - COPD
 - Bronchiectasis
 - Emphysema

PITTING OEDEMA

- CARDIAC CAUSES
- RENAL CAUSES
- LIVER



Ascites



Ascites



- Abdominal discomfort
- Liver congestion/failure
- Nausea
- Feeling full/bloated
- Increase breathlessness
- Decreased mobility

Other symptoms



- Dizziness
- Weight gain (1 kg = 1 litre)
- Reduced mobility
- Palpitations
- Thirst
- Lethargy/weakness
- Chest pain
- Heart Rhythm Disorders
- Renal Failure
- Cachexia
- Cognitive impairment

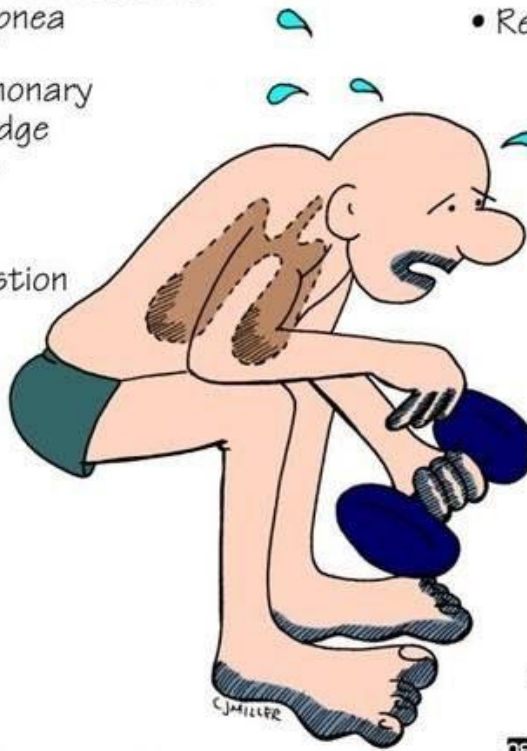
RIGHT SIDED ♥ FAILURE

(Cor Pulmonale)

- 
- Fatigue
 - ↑ Peripheral Venous Pressure
 - Ascites
 - Enlarged Liver & Spleen
 - May be secondary to chronic pulmonary problems
 - Distended Jugular Veins
 - Anorexia & Complaints of GI Distress
 - Swelling in Hands & Fingers
 - Dependent Edema

LEFT SIDED ♥ FAILURE

- Paroxysmal Nocturnal Dyspnea
- Elevated Pulmonary Capillary Wedge Pressure
- Pulmonary Congestion
 - Cough
 - Crackles
 - Wheezes
 - Blood-Tinged Sputum
 - Tachypnea
- Restlessness
- Confusion
- Orthopnea
- Tachycardia
- Exertional Dyspnea
- Fatigue
- Cyanosis



Monitoring



- Daily weights – response to loop diuretic
- Fluid intake – restrict to 1.5 litre per day
 - Thirst
 - Some patients have been advised to drink more!
 - Make sure they drink enough (over 1 litre)
- Renal function – U&Es
 - Low sodium; do not encourage an increase in salt intake
 - Acceptance of some renal dysfunction
- Cognitive impairment
 - Understanding of condition
 - Concordance
- Liver function - LFTs
- Blood pressure; sitting and standing
- Heart rate – ECG
- Symptoms

Treatment



- Oral or IV loop diuretics
 - Bumetanide or furosemide
 - IV furosemide
- Medications
 - Rate control
 - BP control
 - Nephrotoxics (reduction)
- Other diuretics
 - Thiazide or thiazide like medication
 - ✦ Bendroflumethiazide
 - ✦ Metolazone
 - Mineralocorticoid receptor antagonist
 - ✦ Spironolactone
- Patient Understanding and Support

Where do we treat



- At home – oral diuretics
 - HFSNs
- Hospital admission
 - Ward
 - CCU/ITU
- AID-HF (Ambulatory Intravenous Diuretic for Heart Failure)
 - HFSNs
 - Consultant Cardiologist
 - Improves the flow between secondary and tertiary health care
 - Prevents an admission

Cardiogenic Shock



- Hypotension
- Organ hypoperfusion despite adequate fluid resuscitation
- Poor perfusion to peripheries
 - Cold and clammy
- End organ dysfunction; renal, hepatic and central nervous system is common

Deteriorating Patient



- Respiratory support
 - CPAP or BIPAP
- Renal Support/Management of fluid overload
 - Continuous Renal Replacement
 - Dialysis
- Cardiac support - medications
 - Inotropes (Noradrenaline/Dobutamine)
 - Phosphodiesterase inhibitors (Milrinone)
- Monitored level 2/3 bed
- GTN infusion – ward level

Conclusion



- We can all assist in supporting, educating and helping patients with heart failure
- Patients with chronic heart failure can gradually deteriorate or acutely deteriorate resulting in a hospital admission
- Early detection and treatment may prevent this progression
- Education, monitoring and changes in treatment may prevent a hospital admission



THANK YOU FOR
LISTENING