Cardio III: Rate/Rhythm, Pericarditis Cheat Sheet

by ksellybelly via cheatography.com/19318/cs/2382/

Conduction Disturbances

Sick Sinus Syndrome	Causes: Digitalis (reversible), CCBs, sympatholytics, antiarrythmic drugs, coronary dz
AV block	Refractory conduction of impulses format he atria to the ventricles through the AV node/bundle of HIS
First degree	PR Interval of 0.4 sec or more
Second degree	Mobitz Type I (Wenckebach) & Mobitz Type II
Third degree	Complete dissociation from atria to ventricles
Treatment	Permanent pacing

Supraventricular Arrhythmias

Sinus bradycardia

HR <60 bpm. Sinus node pathology, increased risk of ectopic rhythms.

Sinus tachycardia

HR >100 bpm. Occurs with fever, exercise, pain, emotion, shock, thyrotoxicosis, anemia, heart failure, drugs.

Atrial premature beats

Usually benign

PSVT

Most *common paroxysmal tachycardia. Usually benign.

Atrial fibrillation

Most common chronic arrhythmia, "holiday heart" when caused by EtOH or withdrawel

Atrial flutter

Usually in pts. with normal hearts, or with myocarditis, CAD, or dig toxicity

Clinical features

Palpitations, angina, fatigue

Supraventricular Arrhythmias (cont)

Treatment--PSVT

Adenosine, verapamil. Prevent with diltiazem, B-blocker.

Treatment--Acute Afib

Electric cardioversion, rate control, prevent thromboembolism

Treatment--Chronic Aflutter

Amiodarone

Ventricular Arrhythmias

Ventricular premature beats

May be benign or lead to sudden death if underlying heart disease

Ventricular tachycardia

3 or more ventricular premature beats in a row. Complication of MI and dilated cardiomyopathy. Sustained or unsustained.

Torsades de Pointe

A polymorphic VTach. Happens spontaneously, or from hypokalemia, hypomagnesemia, or QT-prolonging drugs

Long QT Syndrome

Congenital or acquired, recurrent syncope. Interval 0.5-0.7 sec. Can get ventricular arrhythmias and sudden death.

Brugada's syndrome

Genetic disorder, Asians and men, causes syncope, Vfib, sudden death.

Ventricular fibrillation

No cardiac output, associated with sudden death, more in early morning.

Treatment--Vfib

B-blockers if symptomatic

Treatment--Vtach

Synchronized cardioversion if severe hypotension or LOC. Rx: lidocaine, amiodarone, magnesium.

Ventricular Arrhythmias (cont)

Treatment--Chronic sustained Vtach, congenital long QT, Brugadas

Implantable defibrillator

Treatment--Torsades de Pointe

B-blockers, magnesium, temporary pacing

Treatment: if identifiable site of arrhythmic origin

Radiofrequency ablation

Cardiomyopathies

DILATED Cardiomyopathy

Can't squeeze/contract, most common*, reduced strength or ventricular contraction and dilation of left ventricle.

Etiology

Genetic (most common), EtOH, chemo, idiopathic

Takotsubo

Type of dilated cardiomyopathy, occurs after major catecholamine discharge, sx similar to acute MI, "broken heart syndrome"

Clinical features

Sx of CHF, *dyspnea. Possibly S3 gallop, rales, JVP.

Treatment

Abstain from ThOH, treat underlying disease, supportive tx for CHF.

HYPERTROPHIC Cardiomyopathy

Can't fill/too tight, hypertrophy of septum and left ventricle, diastolic dysfunction

Etiology

Almost exclusively *genetic

Treatment

B-blockers, CCB or disopyramide (negative inotrope)

Sudden cardiac death

from hypertrophic cardiomyopathy occurs in patients <30yo 2-3% yearly

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Cardiomyopathies (cont)

RESTRICTIVE Cardiomyopathy

Heart fibers of ventricle all scrambled up, mildly reduced function of L ventricle. Pulmonary HTN.

Etiology

From ibrosis or infiltration from diabet-es,radiation, amyloidosis

Treatment

Diuretics may be helpful.

Pericardial Disorders

Pericarditis

Inflammation of the pericardium most often from infection, autoimmune, s/p radiation/chemo, drug toxicity.

Clinical Features

Pleuritic substernal pain, friction rub, pain relieved by sitting upright and leaning forward, fever if infectious

Pericardial Effusion

Secondary to pericarditis/uremia/cardiac trauma. Produces restrictive pressure on the heart

Clinical Features

Painless or painful (dyspnea and cough)

Cardiac Tamponade

Occurs when fluid compromises cardiac filling and impairs cardiac output

Clinical Features

Tachycardia, tachypnea, narrow pulse pressures, pulses paradoxes

EKG Signs

Electrical alternans

Treatment

If hemodynamic compromise-->pericard-iocentesis to relieve fluid accumulation. O/W just NSAIDs if strictly inflammatory or abx if infectious