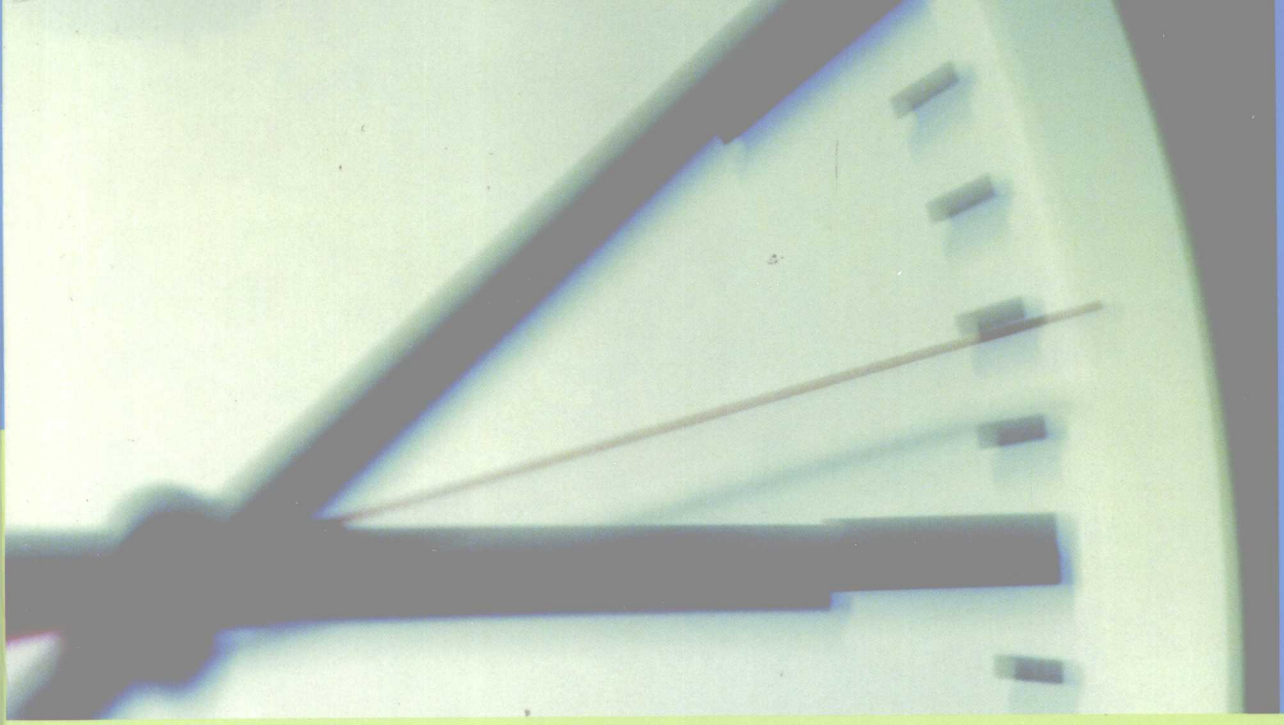

LANGE

CURRENT CONSULT

CARDIOLOGY

2 Parts Ensure Answers in Minutes

- **Differential Diagnosis**
- **Key diagnostic and treatment points for all major disorders in cardiology**

Michael H. **Crawford**

Komandoor **Srivathson**

Dana P. **McGlothlin**

a LANGE medical book

CURRENT CONSULT

CARDIOLOGY

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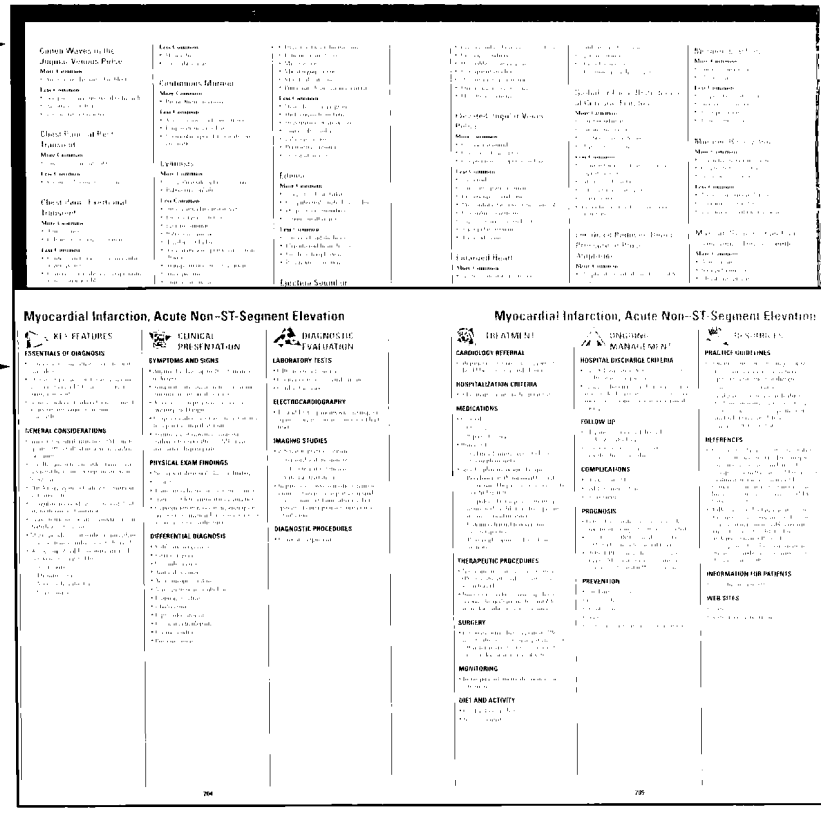
Current Consult Cardiology: 2 Parts



Guide to *Current Consult: Cardiology*

Current Consult: Cardiology is designed to provide rapid, efficient access to the exact information you need when you only have a few minutes to review a topic. It is a single-source reference for use in the clinical setting. The two parts of the book which are color-coded include:

- Differential Diagnosis: the GREEN PAGES
- A-Z Diagnosis and Treatment: the WHITE PAGES

The **DIFFERENTIAL DIAGNOSIS** section is a unique index and valuable feature that groups disease topics according to related signs, symptoms, and patient presentations. It offers differential diagnoses for patient evaluation, along with an immediate connection to the appropriate disorders.

A—Z DIAGNOSIS AND TREATMENT presents carefully selected information on cardiovascular topics in a convenient two-page format for each disorder. Perfect as a reference when a rapid review of practical points is needed, the WHITE PAGES are not only organized alphabetically, but are also accompanied by an additional Contents list that categorizes the topics by subject area; for example, ischemic heart disease, vascular disease and valvular heart disease groupings. Each disease entry in the A—Z section highlights:

- Key Features, including Essentials of Diagnosis
- Clinical Presentation and Differential Diagnosis
- Diagnostic Evaluation, including Imaging Studies
- Ongoing Management, including Complications and Prognosis
- Treatment, such as Medications, Therapeutic Procedures, and Surgery
- Resources, such as Practice Guidelines, References, and Web Sites

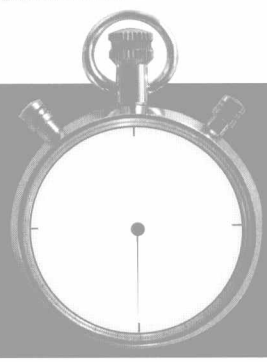
How to Use *Current Consult: Cardiology*

- If you know the diagnosis for which you need an immediate consult, go directly to that disorder in the WHITE PAGES, or
- If you are searching for a differential diagnosis for certain symptoms, signs, or patient presentations, consult the Differential Diagnosis section – the GREEN PAGES. After selecting the most likely diagnoses, go to the WHITE PAGES, A—Z Diagnosis and Treatment, to get complete diagnosis and treatment information.

We hope that *Current Consult: Cardiology* will be a useful and handy resource, providing the guidance that you need—when you need it—to enhance the care of your patients.

Michael H. Crawford, M.D.
San Francisco, California

Differential Diagnosis



Canon Waves in the Jugular Venous Pulse

More Common
- Atrioventricular nodal-His block

Less Common
- Nonparoxysmal junctional tachycardia
- Pacemaker syndrome
- Ventricular tachycardia

Chest Pain: at Rest, Transient

More Common
- Angina pectoris, unstable

Less Common
- Variant or Prinzmetal's angina

Chest Pain: Exertional, Transient

More Common
- Aortic stenosis
- Ischemic heart disease, chronic

Less Common
- Cardiac Syndrome X (microvascular angina pectoris)
- Coronary artery disease, symptomatic, non-revascularizable
- Hypertrophic cardiomyopathies
- Subclavian coronary artery steal syndrome

Chest Pain: Pleuritic

More Common
- Myocarditis
- Pericarditis, acute

Less Common
- Left ventricular free wall rupture, acute
- Myocardial infarction, acute ST-elevation
- Pulmonary embolism

Chest Pain: Prolonged

More Common
- Myocardial infarction, acute non-ST segment elevation
- Myocardial infarction, acute ST segment elevation

Less Common
- Myocarditis
- Pericarditis, acute

Continuous Murmur

More Common
- Patent ductus arteriosus

Less Common
- Aortic stenosis and regurgitation
- Periprosthetic valve leak
- Ventricular septal defect with aortic regurgitation

Cyanosis

More Common
- Cor pulmonale/right-heart failure
- Pulmonary embolism

Less Common
- Atrioventricular canal defects
- Eisenmenger's syndrome
- Epstein's anomaly
- Pulmonary atresia
- Tetralogy of Fallot
- Total anomalous pulmonary venous drainage
- Transposition of the great arteries
- Tricuspid atresia
- Truncus arteriosus

Dyspnea, at Rest

More Common
- Congestive heart failure
- Pulmonary edema

Less Common
- Aortic regurgitation, acute
- Cardiac tamponade
- High altitude pulmonary edema
- Mitral regurgitation, acute
- Pulmonary embolism

Dyspnea, on Exertion

More Common
- Aortic regurgitation, chronic
- Aortic stenosis
- Cardiomyopathy
- Congestive heart failure
- Cor pulmonale
- Hypertrophic cardiomyopathy
- Ischemic heart disease
- Mitral stenosis
- Mitral regurgitation
- Mixed valve diseases
- Pulmonary hypertension, primary

Less Common
- Heart disease in pregnancy
- High output heart failure
- Hyperthyroid heart disease
- Mitral valve prolapse
- Pulmonic stenosis
- Pulmonary embolism
- Tricuspid stenosis

Edema

More Common
- Congestive heart failure
- Cor pulmonale, right-heart failure
- Deep venous thrombosis
- Venous insufficiency

Less Common
- Carcinoid and the heart
- Hypothyroid heart disease
- Localized lymphedema
- Pericarditis, constrictive

Ejection Sound or Systolic Click

More Common
- Aortic stenosis
- Bicuspid aortic valve
- Mitral valve prolapse

Less Common
- Epstein's anomaly
- Pulmonary hypertension, primary
- Pulmonic stenosis

Elevated Blood Pressure

More Common
- Aortic regurgitation, chronic
- Cerebral vascular disease
- Hypertension, systemic
- Metabolic syndrome

Less Common
- Acromegaly
- Coarctation of the aorta

- Cocaine-induced cardiovascular disease
- Cushing's syndrome
- Hyperaldosteronism, primary
- Hyperparathyroidism
- Hypertension, gestational
- Hypertension, renovascular
- Pheochromocytoma

Elevated Jugular Venous Pulse

More Common
- Cardiac tamponade
- Congestive heart failure
- Cor pulmonale / right-heart failure

Less Common
- Carcinoid
- Cardiomyopathy, restrictive
- Eisenmenger's syndrome
- Myocardial infarction, right ventricular
- Pericarditis, constrictive
- Superior vena cava syndrome
- Tricuspid regurgitation
- Tricuspid stenosis

Enlarged Heart

More Common
- Aortic regurgitation, chronic
- Cardiomyopathy
- Congestive heart failure
- Mitral regurgitation, chronic
- Mixed valve disease
- Pericardial effusion

Less Common
- Athlete's heart
- Atrial septal defect
- Chagas' heart disease
- Eisenmenger's syndrome
- Left ventricular aneurysm

Fourth Heart Sound

More Common
- Aortic stenosis
- Hypertension
- Ischemic heart disease, chronic
- Myocardial infarction

Less Common
- Athletes' heart
- Cardiomyopathy, restrictive
- Epstein's anomaly
- Hemochromotosis
- Hypertrophic cardiomyopathies

Global or Focal Disturbance of Cerebral Function

More Common
- Atrial fibrillation
- Cardiogenic Shock
- Cerebral vascular disease
- Hypertensive emergencies

Less Common
- Cardiomyopathy, idiopathic dilated
- Digitalis toxicity
- Infective endocarditis
- Left ventricular aneurysm
- Mitral stenosis
- Patent foramen ovale / atrial septal aneurysm

Localized Reduced Blood Pressure or Pulse Amplitude

More Common
- Peripheral arterial atherosclerosis obliterans
- Thoracic aortic dissection

Less Common
- Aortic coarctation
- Aortic stenosis, supravalvular
- Takayasu's arteritis

Low Systemic Blood Pressure

More Common
- Cardiac tamponade
- Cardiogenic shock
- Congestive heart failure
- Orthostatic hypotension

Less Common
- Adrenal insufficiency
- Athlete's heart
- Hypotension complicating hemodialysis
- Hypothyroid heart disease

Murmur, Diastolic

More Common
- Aortic regurgitation
- Mitral stenosis

Less Common
- Periprosthetic valve leaks
- Pulmonic regurgitation
- Tricuspid stenosis
- Truncus arteriosus

Murmur, Holosystolic

More Common
- Mitral regurgitation, chronic
- Periprosthetic valve leaks
- Tricuspid regurgitation

Less Common
- Atrioventricular canal defects
- Ventricular septal defect
- Ventricular septal rupture, acute

Murmur, Systolic, Ejection (Crescendo, Decrescendo)

More Common
- Aortic stenosis
- Bicuspid aortic valve
- Mitral valve prolapse

Less Common
- Hyperthyroid heart disease
- Hypertrophic cardiomyopathy
- Pulmonic stenosis

Palpitation, Tachycardia

More Common
- Atrial flutter / fibrillation
- Atrioventricular nodal re-entrant tachycardia
- Atrioventricular reciprocating tachycardia
- Automatic (ectopic) atrial tachycardia
- Sinus tachycardia

Less Common
- Atriofascicular tachycardia
- Cocaine-induced cardiovascular disease
- Hyperthyroid heart disease
- Intra-atrial re-entrant tachycardia
- Multifocal atrial tachycardia

- Permanent form of functional reciprocating tachycardia
- Postural tachycardia syndrome
- Sinus node re-entry
- Ventricular tachycardia

Syncope

More Common

- Atrioventricular nodal-His block
- Neurocardiogenic
- Orthostatic hypotension
- Sinus bradycardia
- Sinus node dysfunction
- Ventricular tachycardia

Less Common

- Brugada syndrome
- Congenitally corrected transposition of the great arteries
- Carotid sinus hypersensitivity
- Effort syncope
- Long QT syndrome
- Hypertrophic cardiomyopathy
- Pacemaker malfunction
- Pulmonary emboli
- Tricyclic antidepressants

Wide Pulse Pressure

More Common

- Aortic regurgitation
- Hyperthyroid heart disease
- Peripheral arterial atherosclerosis obliterans

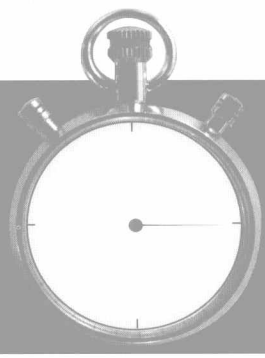
Less Common

- High output heart failure

CONTENTS: Alphabetical

CONTENTS: Topical

A–Z Dx & Tx



Abdominal Aortic Aneurysm

KEY FEATURES

ESSENTIALS OF DIAGNOSIS

- Dilatation of the infrarenal aorta (> 3 cm in diameter)
- Incidence increases with age and more common in men
- Most are asymptomatic until rupture; then 75% of patients die suddenly before reaching the hospital

GENERAL CONSIDERATIONS

- Up to 10% of men over age 65 have abdominal aortic aneurysm (AAA) by ultrasound screening
- Autopsy series discover ruptured AAA in 8 of 100,000 men and 3 of 100,000 women
- Pathologically, AAAs are characterized by loss of the media and fewer elastin fibers, but more collagen. Also, there are findings of inflammation of the aventitia
- After age, smoking is the most common risk factor for AAA
- Hypertension is associated with rupture, but not the development of AAA. Other traditional atherosclerotic risk factors are not associated with AAA

CLINICAL PRESENTATION

SYMPTOMS AND SIGNS

- Most are asymptomatic and found incidentally
- Back, abdominal, or flank pain can occur

PHYSICAL EXAM FINDINGS

- Pulsatile abdominal mass

DIFFERENTIAL DIAGNOSIS

- Tumor adjacent to aorta
- Pulsatile liver from tricuspid regurgitation
- Musculoskeletal back pain
- Acute abdomen (eg, pancreatitis)
- Aortic dissection
- Ureteric colic

DIAGNOSTIC EVALUATION

IMAGING STUDIES

- Abdominal ultrasound is the best initial screening test
- CT scanning is superior for identifying rupture in painful AAAs

DIAGNOSTIC PROCEDURES

- Angiography is often misleading and is not recommended

TREATMENT

CARDIOLOGY REFERRAL

- Suspicion of heart disease pre-procedure or surgery

HOSPITALIZATION CRITERIA

- Painful AAA
- Ruptured AAA
- Planned surgery

MEDICATIONS

AAA < 5.5 cm

- Watchful waiting
- Stop smoking
- Treat hypertension

AAA > 5.5 cm

- Repair unless risk is prohibitive

THERAPEUTIC PROCEDURES

- Endovascular repair with a percutaneous graft-stent combination is experimental but may be life-saving in nonsurgical candidates

SURGERY

- Surgical replacement with a synthetic graft

MONITORING

- ECG monitoring in hospital
- Blood pressure in hospital

DIET AND ACTIVITY

- Restrict activity if rupture suspected; exercise stress testing contraindicated

ONGOING MANAGEMENT

HOSPITAL DISCHARGE CRITERIA

- After successful procedure or surgery

FOLLOW-UP

- If < 5.5 cm, reevaluate in 3 months, then 6 months, and, if stable, yearly

COMPLICATIONS

- Rupture
- Embolization distally may cause limb ischemia
- Fistula into the gastrointestinal tract, especially after aortic surgery
- Fistula into the inferior vena cava

PROGNOSIS

- Fifty percent of patients in the 4–5.5 cm aneurysm range can expect to need surgery due to expansion > 5.5 cm in 5 years
- The 30-day surgical mortality rate for aneurysm resection is 6%
- The outcome for ruptured aneurysms is poor:
  - 75% die before reaching the hospital
  - 50% do not survive surgery
  - The 30-day mortality rate for the remainder is 40%

PREVENTION

- Smoking cessation
- Control hypertension

RESOURCES

PRACTICE GUIDELINES

- There is no proven benefit in operating on aneurysms < 5.5 cm in diameter that are asymptomatic
- The standard treatment is resection and replacement with a Dacron graft. The safety and durability of endovascular grafts is not known, but being studied

REFERENCES

- Jones KG et al: Interleukin-6 (IL-6) and the prognosis of abdominal aortic aneurysms. Circulation 2001;103:2260.
- Lederle FA et al: Immediate repair compared with surveillance of small abdominal aortic aneurysms. N Engl J Med 2002;346:1437.
- The UK Small Aneurysm Trial Participants: long-term outcomes of immediate repair compared with surveillance of small abdominal aortic aneurysms. N Engl J Med 2002;346:1445.

INFORMATION FOR PATIENTS

- www.drpen.com/441.9

WEB SITE

- www.emedicine.com/med/topic3443.htm

Acromegaly and the Heart

KEY FEATURES

ESSENTIALS OF DIAGNOSIS

- Elevated somatomedin C
- Inability to suppress growth hormone to < 2 ng/mL during glucose tolerance test
- Pituitary adenoma found on MRI
- Biventricular hypertrophy with systolic and diastolic dysfunction
- Hypertension, diabetes, and premature coronary artery disease

GENERAL CONSIDERATIONS

- Acromegaly is caused by excessive growth hormone secretion from a pituitary adenoma
- It is characterized by excess bone growth, organ enlargement, and premature death due to cardiorespiratory complications
- Rarely other endocrine tumors can secrete growth hormone

CLINICAL PRESENTATION

SYMPTOMS AND SIGNS

- Headache, bitemporal hemianopsia from tumor growth
- Impotence, galactorrhea or amenorrhea
- Diaphoresis, hoarseness, polyuria, polydipsia
- Carpal tunnel syndrome
- Symptoms of:
  - Heart failure, such as dyspnea
  - Coronary artery disease, such as chest pain

PHYSICAL EXAM FINDINGS

- Systemic hypertension
- Thick lips, macroglossia, bulbous nose, protrusive lower jaw
- Joint swelling, kyphosis
- Left ventricular lift
- Signs of congestive heart failure, such as pulmonary rales

DIFFERENTIAL DIAGNOSIS

- Other causes of cardiomyopathy and heart failure
- Other causes of hypertension
- Other causes of premature coronary artery disease

DIAGNOSTIC EVALUATION

LABORATORY TESTS

- Growth hormone, somatomedin C, and insulin-like growth factor levels
- Hyperglycemia, hypertriglyceridemia
- Hyperphosphatemia

ELECTROCARDIOGRAPHY

- Left ventricular hypertrophy
- Atrial and ventricular tachyarrhythmias

IMAGING STUDIES

- Chest x-ray: cardiomegaly
- Echocardiography: eccentric left ventricular hypertrophy, left atrial enlargement
- Doppler echocardiography: diastolic dysfunction

DIAGNOSTIC PROCEDURES

- Stress cardiac imaging or cardiac catheterization may be indicated to diagnose coronary artery disease