ΖΑΠΠΕΙΟΝ ΜΕΓΑΡΟ | ΑΘΗΝΑ - ΕΛΛΑΔΑ

SAVE THE DATE

8-10 ΝΟΕΜΒΡΙΟΥ 2018

THE ATHENS CROSSROAD

12 Πανελλήνιο Συνέδριο
Ελληνική Εταιρεία
Χειρουργών Θώρακος -
Καρδίας & Αγγείων

IN CONJUNCTION WITH

- 2018 ISMICS Workshop
- 14th Annual meeting of the "Euro-Asian Bridge" Society
- 2nd World Meeting of the Hellenic Cardiothoracic Diaspora

Dealing with constrictive pericarditis

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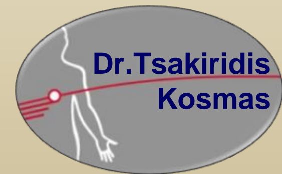
I have no conflicts of interest to declare



Definition

Constrictive pericarditis is a disorder of diastolic filling caused by an inelastic pericardium

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Etiology

North America 1962: 48% Tb

South Africa 1990-2012: 29.8% Tb Confirmation

61.2% Tb Suspected

Mayo Clinic 1985-1995:

80% idiopathic
prior cardiac surgery
acute pericartitis
radiation
20% rheumatologic disease
infection
malignancy
trauma
asbestosis

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Causes

- Irradiation
- Postcardiotomy
- Infectious
  - Viral
    - Echovirus
    - Coxsackie virus
    - Adenovirus
    - Cytomegalovirus
    - Hepatitis B
    - Mononucleosis
    - HIV/AIDS
  - Bacterial
    - Pneumococcus
    - Staphylococcus
    - Streptococcus
    - Mycoplasma
    - Lyme disease
    - *Haemophilus influenzae*
    - *Neisseria meningitides*
    - Others
  - Mycobacterial
    - Mycobacterium tuberculosis
    - *M. avium-intracellulare* complex
  - Fungal
    - Histoplasmosis
    - Coccidioidomyocosis
  - Protozoal

- Neoplastic
- Connective-tissue disorders
  - Systemic lupus erythematosus
  - Rheumatoid arthritis
  - Scleroderma
  - Dermatomyositis
  - Sjögren syndrome
  - Mixed
- Uremic disease
- Trauma
- Sarcoidosis
- Drugs
  - Procainamide
  - Hydralazine
  - Isoniazid
  - Cyclosporine

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Epidemiology

In a prospective study of 500 patients followed for a median of 6 years after an episode of acute pericarditis, 1.8% developed constrictive pericarditis.

The incidence was lower in patients with idiopathic or viral pericarditis when compared to patients with pericarditis due to connective tissue disease, pericardial injury syndrome, neoplasm, or bacterial infection.

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Dif Diagnosis

Table 1 **Hemodynamic and Echocardiographic Features of Constrictive Pericarditis and Restrictive Cardiomyopathy**

Feature	*Constrictive pericarditis*	*Restrictive cardiomyopathy*
Paradoxical pulse	*Present in 1/3 of cases*	*Absent*
Pericardial knock	*Present*	*Absent*
Prominent y descent in JVP	*Present*	*Variable*
Right- and left-sided filling pressures	*Equalized within 5 mmHg*	*Left-sided pressures at least 3–5 mmHg more than right*
Filling pressures >25 mmHg	*Rare*	*Common*
RVSP >50 mmHg	*No*	*Common*
"Square-root" sign	*Present*	*Variable*
RVEDP/RVSP	*≥0.33*	*<0.3*
Discordant respiratory variation of ventricular peak systolic pressures	*Right and left ventricular peak systolic pressure variations are out-of-phase*	*Right and left ventricular peak systolic pressure variations are in-phase*
Pericardial thickness	*Usually increased*	*Normal*
Atrial size	*Mild enlargement, usually of the left atrium*	*Bi-atrial enlargement, usually severe*
Ventricular wall thickness	*Normal*	*Usually increased*
Septal bounce	*Present*	*Absent*
Mitral or tricuspid regurgitation	*Usually absent or mild*	*Often present*
Respiratory variation in left-right pressures or flow	*Exaggerated*	*Normal*
Mitral inflow	*Inspiratory E less than expiratory E (≥25% change); DT usually ≤160 ms*	*No respiratory variation of E velocity; increased E/A ratio ≥2.0; DT <160 ms*
Tricuspid inflow	*Inspiratory E greater than expiratory E (≥40% change)*	*Mild respiratory variation in E velocity (≤15%)*
Pulsed wave Doppler of hepatic vein	*Decreased diastolic forward flow with expiration; marked diastolic flow reversal, which increases with expiration compared to inspiration*	*Systolic forward flow less than diastolic forward flow; diastolic flow reversal in the hepatic vein is more prominent with inspiration*

JVP, jugular venous pulse; RVSP, right ventricular systolic pressure; RVEDP, right ventricular end-diastolic pressure; E, early rapid filling wave; A, filling wave because of atrial systole; DT, deceleration time.

Diagnosis

2/3 of patients with constrictive pericarditis present in heart failure, with dyspnea on exertion and edema being the most commonly reported symptoms.

1/3 may present with chest discomfort, fatigue, abdominal symptoms, tamponade, an atrial arrhythmia, or frank liver disease.

Many patients are misdiagnosed for an extended period of time with liver disease, idiopathic pleural effusion, or unexplained ankle swelling.

Constriction should be considered in all patients presenting with unexplained jugular venous pressure elevation, particularly in the setting of prior cardiac surgery or chest radiation.

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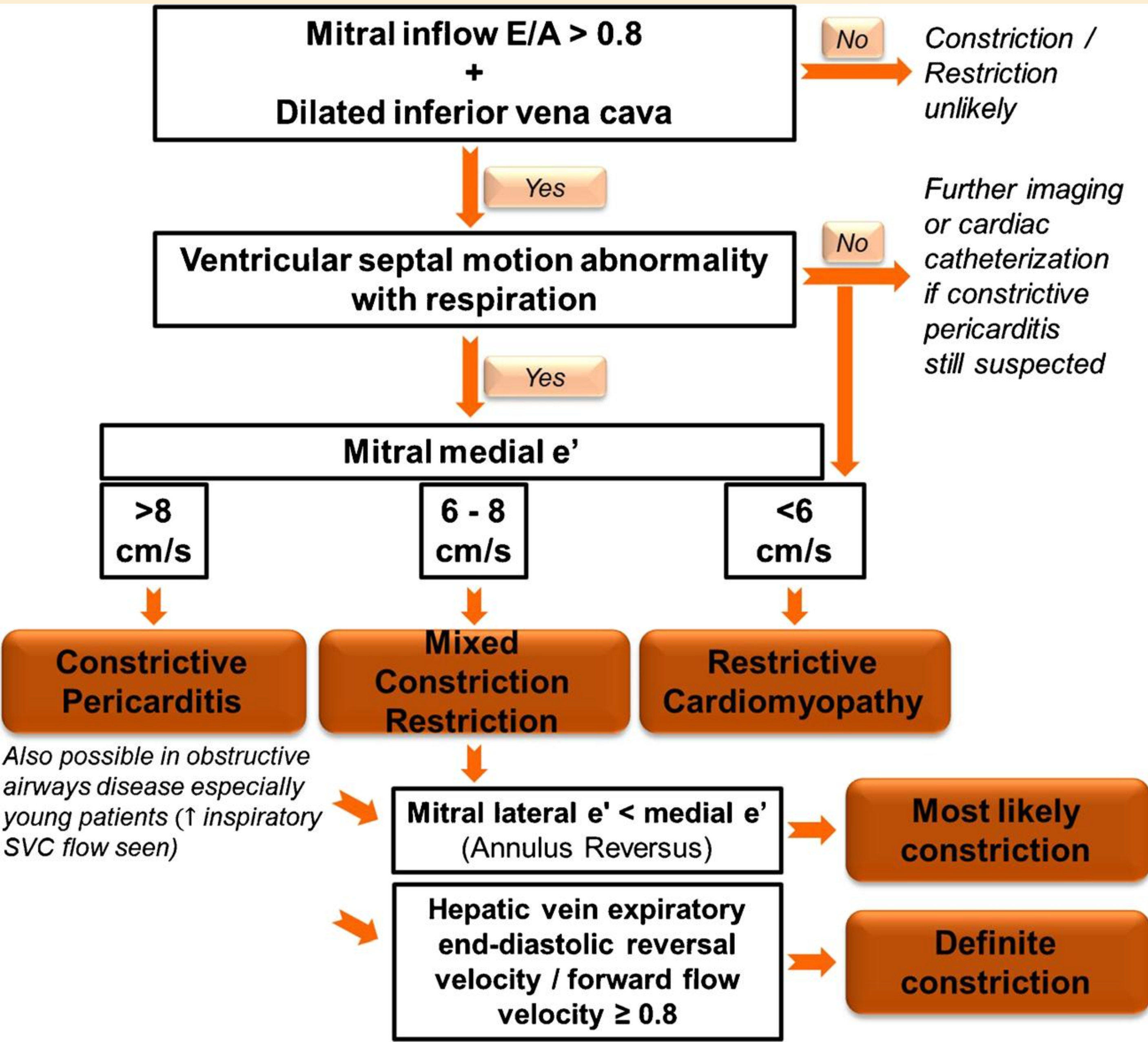
Cardiac Echo



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CT scanning

CT scanning provides a more accurate assessment of pericardial thickness and calcification than is possible by chest radiography or echocardiography, although it should be remembered that neither thickening nor calcification is necessary for a diagnosis of constrictive pericarditis.

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Cardiac MRI

Gated cardiac MRI offers anatomic detail, hemodynamic information, and an assessment of pericardial inflammation and is therefore considered to be very helpful in the work-up and management of patients suspected to have constrictive pericarditis.

MRI allows detection of pericardial thickening and the presence of pericardial fluid

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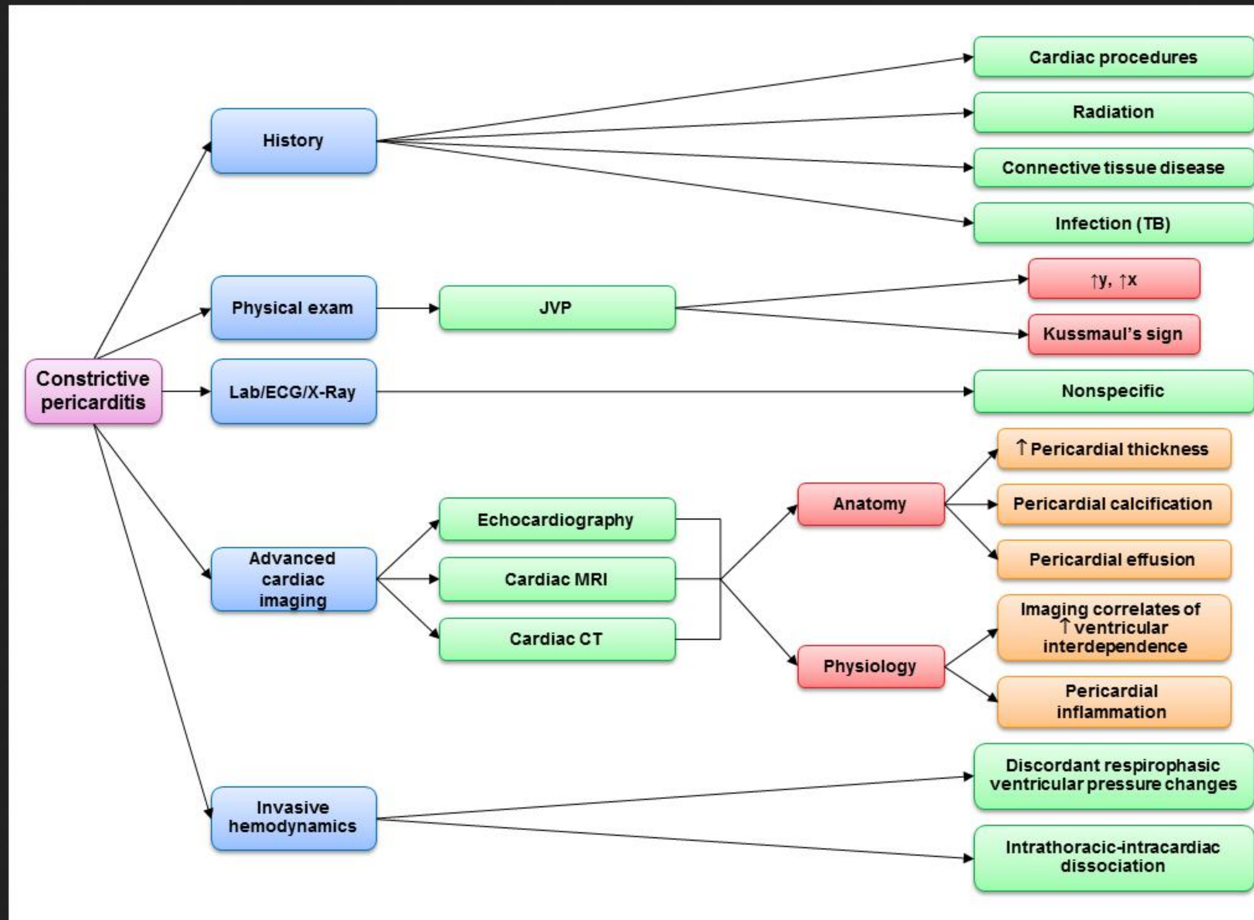
Old disease , New Approaches



Αι -Στράτης, Λήμνος