

Tiếp cận bệnh nhân bệnh van tim (Approach to the Patient with Valvular Heart Disease)

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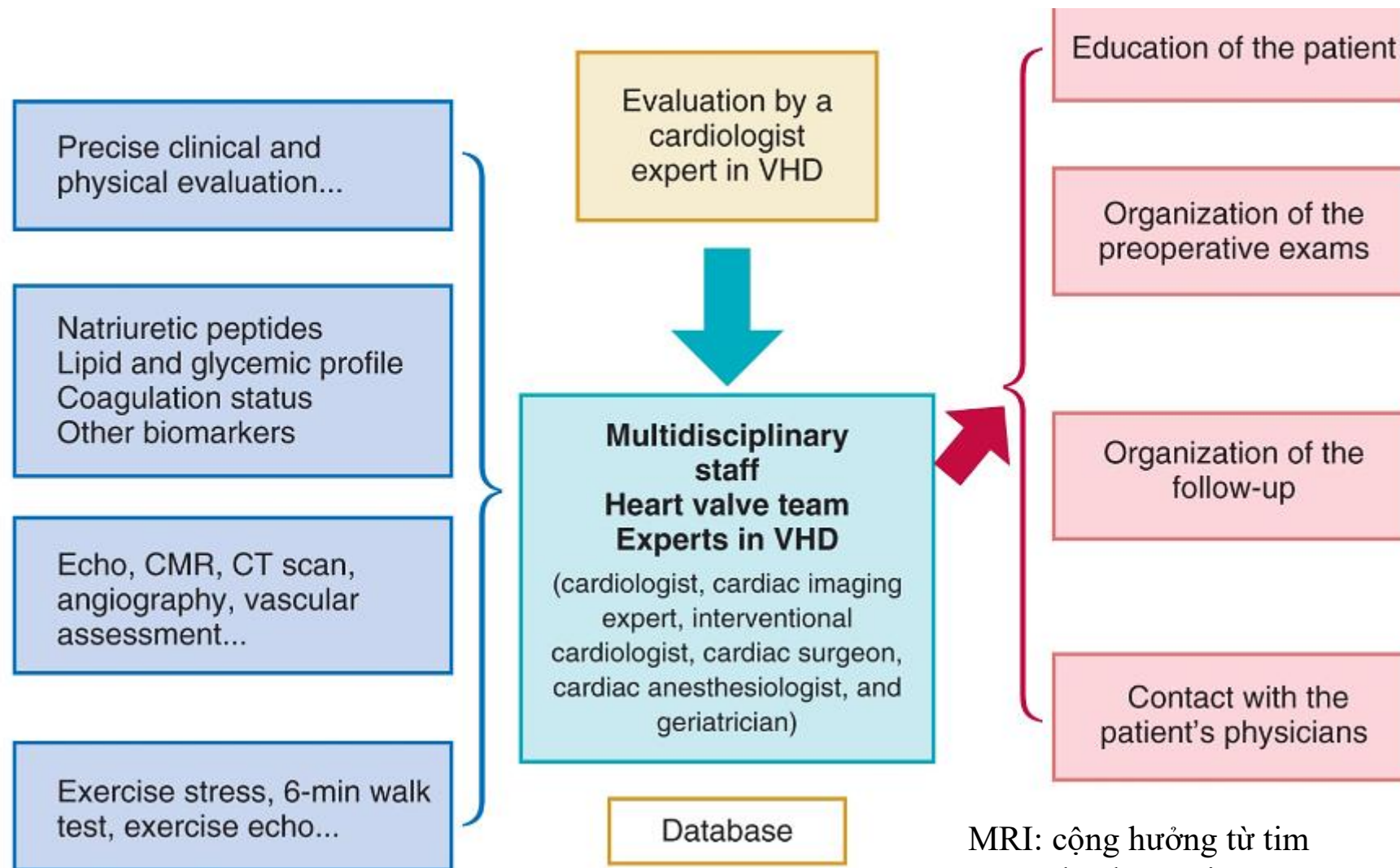
Các điểm chính

- Chẩn đoán nguyên nhân và độ nặng bệnh van tim
- Các biện pháp phòng ngừa rối loạn chức năng van nặng hơn: phòng thấp, phòng ngừa VNTMNT
- Hướng dẫn b/n về tiến triển tự nhiên của bệnh: thời điểm và loại TC/CN
- Phòng ngừa tiên phát và thứ cấp bệnh tim mạch do xơ vữa
- Chẩn đoán sớm và điều trị bệnh tim phối hợp: RN, THA, bệnh ĐMV, viêm nội tâm mạc, dẫn ĐMC
- Thời điểm lý tưởng phẫu thuật hoặc can thiệp để chữa van

Bệnh sử lâm s

- Yếu tố nguy cơ: di truyền, lâm sàng, nhiễm trùng
- Triệu chứng cơ năng
- Khả năng gắng sức
- Các bệnh đi kèm

Chức năng của đơn vị van tim chuyên sâu



MRI: cộng hưởng từ tim

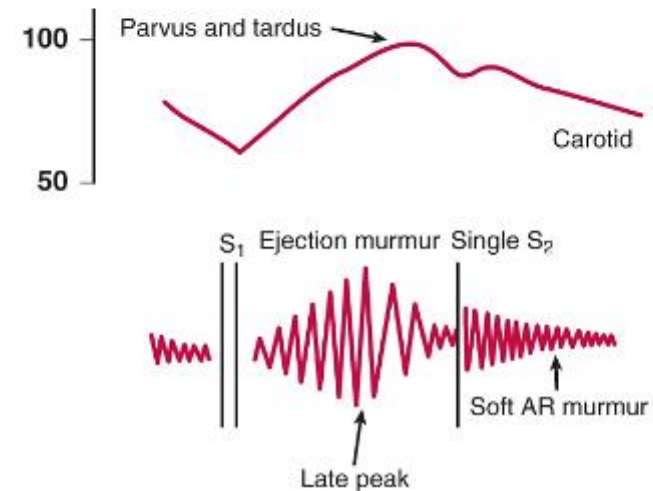
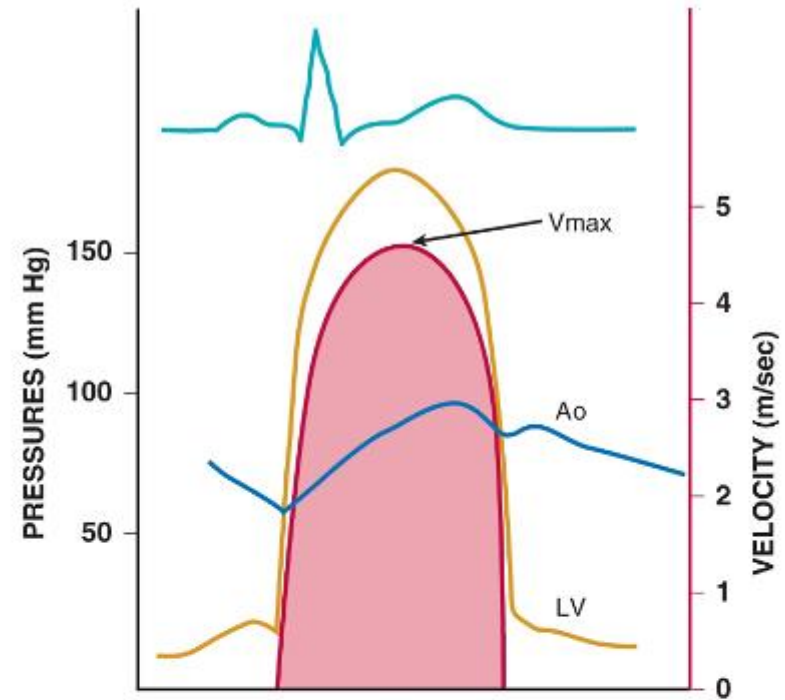
VHD: bệnh van tim

Khám thực thể

- Âm thổi ở tim
 - Vị trí
 - Thời điểm
 - Cường độ
 - Lan
- Tiếng T1, T2
- Các tiếng khác

Mối liên quan giữa thay đổi huyết động trong tim, vận tốc Doppler và các dấu hiệu khám thực thể ở bệnh nhân hẹp chủ và hở chủ

Ao: ĐMC
LV: thất trái
AR: hở chủ
AS: hẹp chủ



Đặc điểm các âm thổi trong bệnh van tim

CONDITION	CHARACTERISTICS AND TIMING	LOCATION	RADIATION	EFFECTS OF MANEUVERS	ASSOCIATED FINDINGS	DIFFERENTIAL DIAGNOSIS
Innocent flow murmur	Soft midsystolic	Base	Variable or none	No change	None	A flow murmur is common during pregnancy and in patients with a high output state (e.g., fever, anemia).
Aortic stenosis (AS)	Crescendo-decrescendo systolic	Base (right second ICS)	Usually to carotid arteries but sometimes to apex in older adults	Decrease with handgrip or standing	Single S ₂ , delayed and decreased carotid upstroke, midsystolic click with congenital AS	HCM murmur peaks in late systole and increases with standing or strain phase of Valsalva maneuver.

Đặc điểm các âm thổi trong bệnh van tim (tt)

CONDITION	CHARACTERISTICS AND TIMING	LOCATION	RADIATION	EFFECTS OF MANEUVERS	ASSOCIATED FINDINGS	DIFFERENTIAL DIAGNOSIS
Mitral regurgitation (MR)	Holosystolic	Apex	Radiation to back or axilla with posteriorly directed jet, to LSB or head with anteriorly directed jet	Increase with handgrip	Hyperdynamic apical impulse	Ventricular septal defect murmur usually loudest (with palpable thrill) at LSB and does not change with handgrip. Acute MR may have a very soft or inaudible murmur.
Tricuspid regurgitation (TR)	Holosystolic with respiratory variation	Left lower sternal border	Right lower sternal border	Increase with inspiration	Prominent v waves in JVP, pulsatile liver	—

Đặc điểm các âm thổi trong bệnh van tim (tt)

CONDITION	CHARACTERISTICS AND TIMING	LOCATION	RADIATION	EFFECTS OF MANEUVERS	ASSOCIATED FINDINGS	DIFFERENTIAL DIAGNOSIS
Pulmonic stenosis (PS)	Crescendo-decrescendo systolic	Left second ICS	None	No change	Ejection click if mobile valve leaflets	A pulmonic flow murmur due to increased flow volume may be present with ASD in the absence of PS.
Aortic regurgitation (AR)	High-pitched diastolic decrescendo	Best heard at LSB with patient sitting up and leaning forward at end-expiration	None	Increase with handgrip	Wide pulse pressure, displaced and enlarged apical impulse	Acute AR murmur may be harsh and short in duration and the pulse pressure may be narrow with a normal size apical impulse.

Đặc điểm các âm thổi trong bệnh van tim (tt)

CONDITION	CHARACTERISTICS AND TIMING	LOCATION	RADIATION	EFFECTS OF MANEUVERS	ASSOCIATED FINDINGS	DIFFERENTIAL DIAGNOSIS
Mitral stenosis (MS)	Low-pitched diastolic rumble, presystolic accentuation	Apex Murmur best heard with patient in steep left lateral position with stethoscope bell on apical impulse	None	Best heard in left lateral decubitus position	Loud S ₁ with opening snap in early to middle diastole	—
Pulmonic regurgitation (PR)	Soft decrescendo diastolic	Left second ICS	LSB	May increase with inspiration	RV heave if severe PR has resulted in RV dilation	—
Tricuspid stenosis (TS)	Low-pitched diastolic rumble	Right sternal border	Right upper abdomen	Increase with inspiration	Increased JVP, peripheral edema, ascites	—

Các trắc nghiệm chẩn đoán

- Siêu âm tim
- Ảnh cộng hưởng từ
- Chụp cắt lớp điện toán (CT)
- Trắc nghiệm gắng sức
 - + Thăm lặn
 - + Siêu âm tim gắng sức, Dobutamine
- Thông tim

Tần suất làm SA tim ở b/n bệnh van tim không TC/CN và chức năng thất trái bình thường

TL: Otto CM, Bonow RO. Braunwald's Heart Disease, 2018, 11th ed, Elsevier, p1383-1388

Stage	VALVE LESION			
	Aortic Stenosis [†]	Aortic Regurgitation	Mitral Stenosis	Mitral Regurgitation
Stage B (progressive)	Mild (V_{max} 2.0-2.9m/sec) Every 3-5yr	Mild Every 3-5yr depending on valve and sinus anatomy	Mild (MVA $>1.5\text{cm}^2$) Every 3-5yr	Every 3-5yr (mild severity)
	Moderate (V_{max} 3.0-3.9m/sec) Every 1-2yr	Moderate Every 1-2yr	—	Every 1-2yr (moderate severity)
Stage C (severe)	Every 6mo to 1yr ($V_{max} \geq 4\text{m/sec}$)	Every 6-12mo More frequently if LV dilation present.	Every 1-2yr (MVA 1.0-1.5 cm^2) Every 1yr (MVA $<1\text{cm}^2$)	Every 6-12mo More frequently if LV dilation present.

LV, Left ventricle; *MVA*, mitral valve area; V_{max} maximum aortic jet velocity.

Chỉ định làm TN gắng sức ở b/n bệnh van tim

TL: Otto CM, Bonow RO. Braunwald's Heart Disease, 2018, 11th ed, Elsevier, p1383-1388

INDICATION	STRESS TYPE	ECHO DATA ACQUISITION	PARAMETERS USED IN CLINICAL DECISION MAKING	COMMENTS
Aortic stenosis (AS): symptom status	Exercise treadmill	Optional	Exercise duration Symptoms Blood pressure response	—
Low-output, low-gradient AS*	Low-dose dobutamine	Aortic jet velocity (CWD) LV outflow velocity (PDE) Ejection fraction (2D)	Severe AS is present if: V_{max} >4.0m/sec or mean ΔP >40mmHg with AVA $\leq 1.0\text{cm}^2$ at any flow rate	Contractile reserve is defined as \uparrow ejection fraction or \uparrow transaortic stroke volume >20%
Mitral stenosis	Exercise treadmill or supine bicycle	TR jet velocity (CWD)	PA systolic pressure > 60mmHg with exercise	—
Mitral regurgitation	Exercise treadmill or supine bicycle	TR jet velocity (CWD)	PA systolic pressure > 60mmHg with exercise	—

Nguyên tắc cơ bản điều trị nội

- Phòng ngừa thấp tim
- Phòng ngừa VNTMNT
- Phòng ngừa và điều trị bệnh ĐMV
- Rung nhĩ
- Tăng huyết áp
- Rối loạn chức năng thất trái
- Bệnh động mạch chủ

Kháng đông cho RN do bệnh van tim

PATIENT GROUP	RECOMMENDATION	RATIONALE
VHD plus atrial fibrillation (AF)	Anticoagulant therapy should be individualized using shared decision making after discussion of benefits and risks, and taking into account patient preferences and values.	With new data showing equivalence of direct oral anticoagulant versus vitamin K antagonist therapy for patients with AF and VHD in prevention of embolic events, a shared decision-making approach should be followed to determine the anticoagulation therapy for each individual patient.
Mitral stenosis (MS)	Anticoagulation (vitamin K antagonist or heparin) is indicated for patients with MS and AF (paroxysmal, persistent, or permanent).	Patients with MS and AF are at the highest risk of embolic events with a high prevalence of left atrial thrombi, even when in sinus rhythm. Clinical trials of direct oral anticoagulants versus warfarin excluded patients with MS.

Kháng đông cho RN do bệnh van tim

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PATIENT GROUP	RECOMMENDATION	RATIONALE
Other native valve disease	In patients with native aortic valve disease, tricuspid valve disease, or mitral valve regurgitation, antithrombotic therapy for AF should follow standard AF guidelines.	Randomized clinical trials of direct oral anticoagulants versus warfarin, which included subgroups of patients with native valve disease (except MS), showed equivalence of these therapies.
Bioprosthetic valves	In patients with a bioprosthetic valve, antithrombotic therapy for AF should follow standard AF guidelines, as well as recommendations for management after valve implantation (see Chapter 71 ↗).	Randomized clinical trials of direct oral anticoagulants versus warfarin, which included subgroups of patients with bioprosthetic valves, showed equivalence of these therapies.
Mechanical valves	Patients with a mechanical prosthetic valve should be treated with vitamin K antagonists or heparin as recommended for the prosthetic valve regardless of the presence of AF.	Patients with mechanical valves require warfarin therapy (or heparin) for prevention of thromboembolic events. Guidelines for prosthetic valves address whether the goal INR should be increased when concurrent AF is present (see Chapter 72 ↗).