Transthyretin amyloid cardiomyopathy (ATTR-CM)

DO YOU HAVE THESE PATIENTS IN YOUR PRACTICE

SUSPECTING ATTR-CM IS IMPORTANT BECAUSE:

- The diagnosis of ATTR-CM is often delayed or missed[1,2]
- It is a rare condition that is a potentially fatal cause of heart failure and other cardiovascular manifestations[1]
- Patients with ATTR-CM have 2-6 years of life expectancy post-diagnosis[2]

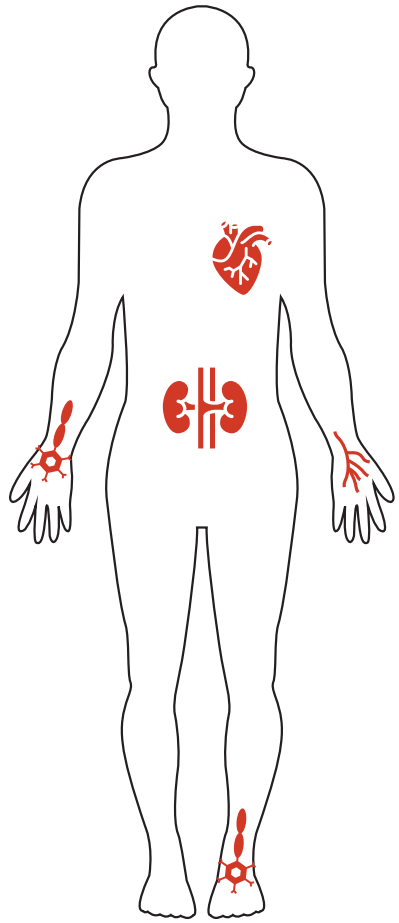
WHAT ARE THE "RED FLAGS" FOR ATTR-CM?

LEARN MORE ABOUT HOW TO SUSPECT ATTR-CM

LEARN TO RECOGNIZE THE "RED FLAG" SYMPTOMS OF ATTR-CM

NEW ONSET HEART FAILURE + ≥1 OF THE FOLLOWING:[1,3]

- Unexplained increase in LV wall thickness
- Low-flow, low-gradient aortic stenosis with preserved LVEF (in patients >60 years old)
- Carpal tunnel syndrome (bilateral)
- Established AL or ATTR in non-cardiac organ/system
- Peripheral sensorimotor neuropathy and/or dysautonomia



LV = Left ventricular; LVEF = left ventricular ejection fraction; AL = light chain amyloidosis; ATTR = transthyretin amyloidosis



DOES JIM REMIND YOU OF ANYONE IN YOUR PRACTICE?

JIM, 63 YEARS OLD

AT WHAT POINT IN JIM'S JOURNEY WOULD YOU HAVE ENCOUNTERED HIM?

3 YEARS AGO

- Presented at the emergency room with dyspnea at rest and diagnosed with symmetric hypertrophic cardiomyopathy
- Chest x-ray shows discrete increase in left atrium and left ventricle
- History of mild hypertension and bilateral carpal tunnel release
- BNP 800 pg/mL

Have you seen patients with bilateral carpal tunnel syndrome in your practice?

Would you have explored the results of the chest x-ray further?

2 YEARS AGO

- ECG shows low voltage in limb leads and repolarization changes
- Echo shows thickened LV septum and posterior wall and enlarged left atrium
- HFpEF

Does the discordance between QRS voltage and left ventricle wall thickness lead you to suspect anything with Jim?

1 YEAR AGO

Cardiac magnetic resonance shows diffuse circumferential global sub-endocardial and transmural late gadolinium enhancement and LV increase

TODAY

Serial echocardiography demonstrates:

- Progressive LV wall thickening
- Systolic dysfunction
- Left atrial enlargement
- Pulmonary hypertension

BNP = brain natriuretic peptide; ECG = electrocardiogram;
HFpEF = heart failure with preserved ejection fraction; LV = left ventricular

DOES BOB REMIND YOU OF ANYONE IN YOUR PRACTICE?

BOB, 68 YEARS OLD

AT WHAT POINT IN BOB'S JOURNEY WOULD YOU HAVE ENCOUNTERED HIM?

15 YEARS AGO

- Classic angina symptoms
- Stress test indicated ischemia
- Coronary angiography showed high-grade left anterior descending coronary artery stenosis
- Stent implantation
- Diagnosed with HF

3 YEARS AGO

- Presented to emergency room with worsening HF symptoms and had urgent coronary angiography due to elevated troponin
- Coronary angiography, patent stent; no significant stenosis of other arteries
- Gradually progressing HFpEF
- Normal renal function

Because of Bob's medical history and heart failure symptoms, is there anything you suspect?

OVER THE LAST 3 YEARS

- Creatinine levels have started to rise and troponin levels persistently elevated
- Despite treatment, his HFpEF has continued to worsen

What would you consider to be the appropriate number of adjustments to Bob's HF medication before you suspect something else?

6 MONTHS AGO

- ECG shows first-degree atrioventricular block, non-specific ST-T changes and delayed precordial R wave progression
- Echo shows mild LV hypertrophy with interventricular septal end diastole wall thickness of 13 mm, moderate diastolic dysfunction and left atrial enlargement

HF = heart failure; HFpEF = heart failure with preserved ejection fraction; ECG = electrocardiogram; LV = left ventricular

DOES LILLIAN REMIND YOU OF ANYONE IN YOUR PRACTICE?

LILLIAN, 84 YEARS OLD

AT WHAT POINT IN LILLIAN'S JOURNEY WOULD YOU HAVE ENCOUNTERED HER?

5 YEARS AGO

- Biceps tendon rupture

How often do you encounter patients with this in your clinical practice?

3 YEARS AGO

- Complains of relatively frequent diarrhea and weight loss
- Has developed numbness in her lower limbs

Would you do any investigations at this point?

6 MONTHS AGO

- Multiple hospitalizations in the past 6 months due to recurrent cardiac decompensations
- New York Heart Association (NYHA) Class III HF
- Atrial fibrillation
- Referred for aortic stenosis assessment; no significant coronary artery stenosis found

TODAY

- Increased troponin T, BNP and NT-proBNP
- Cardiac magnetic resonance shows diffuse sub-endocardial late gadolinium enhancement pattern and increased LV wall thickness

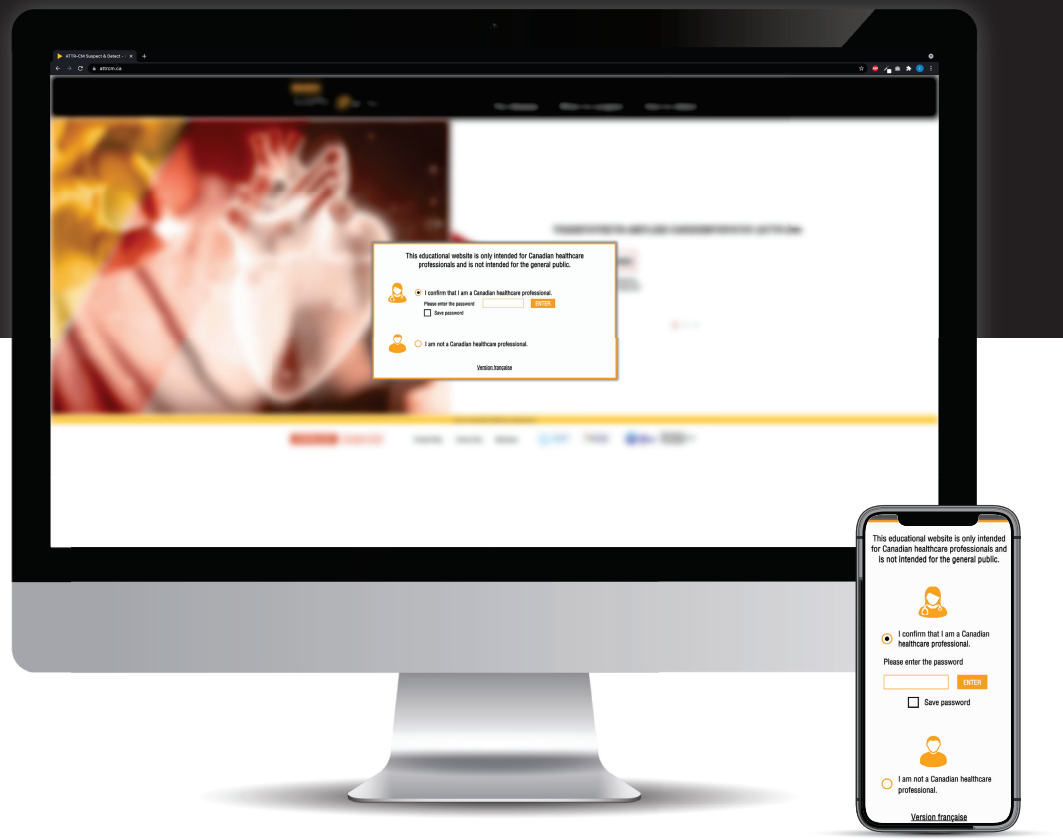
Do the results from today's exam raise any red flags issues for you?

NT-proBNP = N-terminal pro b-type natriuretic peptide; LV = left ventricular; HF = heart failure

ATTR-CM

SUSPECT & DETECT

Key investigational steps



BE READY TO SUSPECT ATTR-CM

VISIT ▸ **WWW.ATTRCM.CA**

PASSWORD: ATTRCM

References:

1. Fine NM *et al*. Canadian Cardiovascular Society/Canadian Heart Failure Society joint position statement on the evaluation and management of patients with cardiac amyloidosis. *Can J Cardiol* 2020;36:322-34.
2. Maurer MS *et al*. Expert consensus recommendations for the suspicion and diagnosis of transthyretin cardiac amyloidosis. *Circ Heart Fail* 2019;12:e006075.
3. Canadian Cardiovascular Society. Cardiac amyloidosis infographic. Accessed May 21, 2021.

Pfizer Canada ULC, Kirkland, Quebec
H9J 2M5

PP-VYN-CAN-0127- EN

INNOVATIVE MEDICINES CANADA

REVIEWED BY PAAB