

Aortic Stenosis in Women: Key Considerations and Questions

When assessing female patients for aortic stenosis (AS), women often present with unique symptoms and risk factors, necessitating a tailored approach to diagnosis and treatment. This document outlines critical questions for cardiologists to consider, focusing on the severity and progression of symptoms, relevant diagnostic tests and specific risk factors. By addressing these aspects, healthcare providers can ensure a more accurate assessment and timely intervention for female patients with AS.

Questions to consider when assessing female patients

Diagnosis

1

Severity of symptoms

- a. Does the patient have pronounced chest pain, shortness of breath and dizziness/syncope?

2

Frequency and triggers of symptoms

- a. How often does the patient experience these symptoms?
- b. What activities worsen the symptoms?

3

Progression and impact on activity levels

- a. Have the symptoms worsened over time?
- b. How have the symptoms impacted the patient's daily activities and overall activity levels?
 - i. **Example 1:** A 70-year-old female patient reports that she used to be able to walk her dog for 30 minutes without any issues, but over the past 6 months, she finds herself short of breath after just 10 minutes
 - ii. **Example 2:** A 65-year-old female patient mentions that she used to enjoy gardening for several hours on weekends, but recently she has to take frequent breaks due to chest pain and fatigue
 - iii. **Example 3:** A 72-year-old female patient notes that she used to climb stairs with ease, but now experiences dizziness and needs to hold onto the railing for support

4

Relevant diagnostic tests for aortic stenosis












- a. Have the relevant diagnostic tests been conducted (e.g. echocardiography and CT scan)?¹ Noting that:
 - i. Female patients show more pronounced fibrosis and leaflet thickening¹
 - ii. Female patients with severe aortic stenosis have a lower calcification burden than male patients¹
 - iii. Given the slower rate of progression of calcification in female patients, disease progression should be determined using a combination of multiple criteria, including haemodynamic parameters²
 - iv. Haemodynamic parameters should be indexed to body surface area for accurate assessment of severity – to account for the generally lower body surface area of female patients³

5

Exercise tolerance

- a. During the office visit, consider having the patient perform a short walk or light exercise to unmask symptoms, as women are generally less tolerant to exercise⁴
- i. Example: A female patient is asked to walk up and down the hallway for 5 minutes. She reports feeling significantly shorter of breath and lightheaded compared with when she is seated

Risk evaluation

1. Common risk factors for aortic stenosis	2. Risk factors for cardiovascular disease with a bigger impact on women ⁸	3. Risk factors unique to women ⁸
 Age ⁵	 a. Diabetes	 a. Hormonal influences (e.g. menopause)
 LDL cholesterol ⁵	 b. Smoking	 b. Pregnancy-related factors (e.g. preterm delivery; hypertensive disorders of pregnancy; gestational diabetes)
 Body mass index ⁶	 c. Obesity and being overweight	 c. Breast cancer treatment
 Kidney disease ⁷	 d. Hypertension	



Adopt a gender-specific approach to assess AS, ensuring you listen to what female patients do not say. By recognising the specific symptoms and risk factors that female patients present, we can ensure more accurate diagnoses and timely interventions.



Scan the QR code to learn more about bridging the gender gap in AS.



Be aware of the hidden sign of AS: Act now!

Abbreviations

AS: aortic stenosis; CT: computed tomography; LDL: low density lipoprotein

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