

# Onemocnění aortální chlopně (hrudní aorty) z pohledu nových ESC doporučení z roku 2025

## Výpočetní tomografie

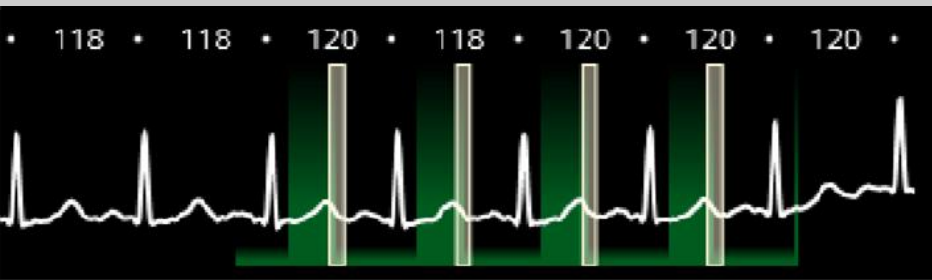
**Jan Baxa**

NH Hospital a.s. - Nemocnice Hořovice

AKESO holding a.s.







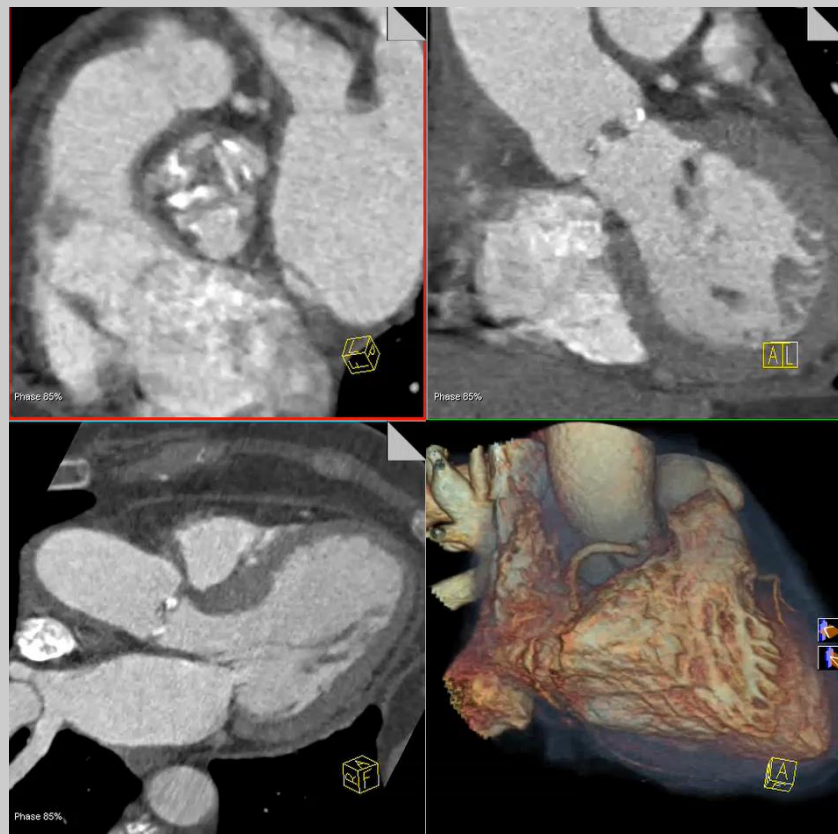
# technika

retrospektivní gating

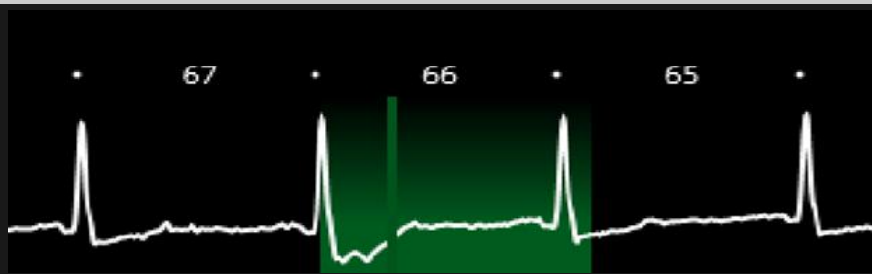
všechny fáze R-R intervalu

vyšší kvalita

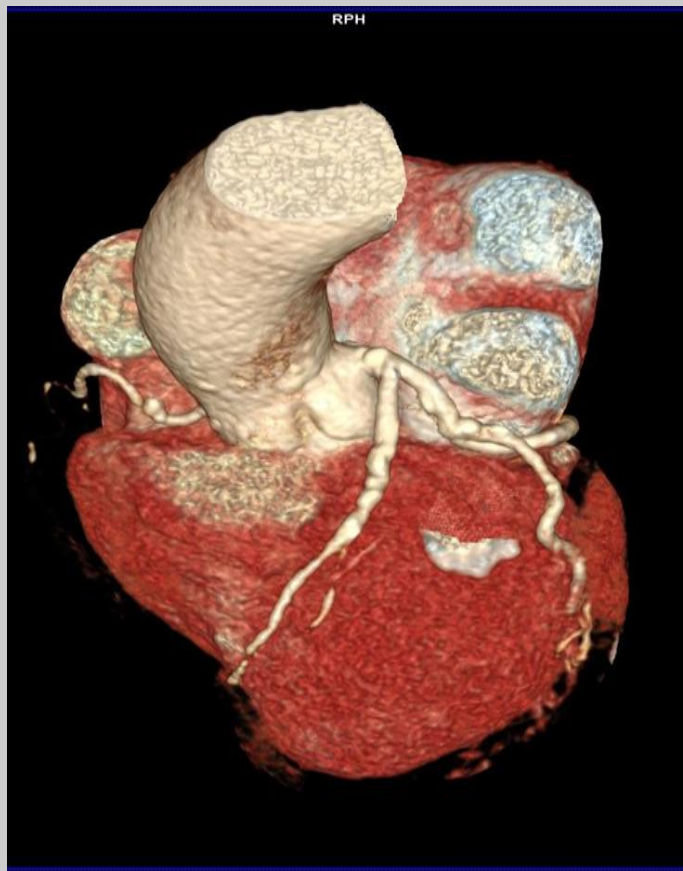
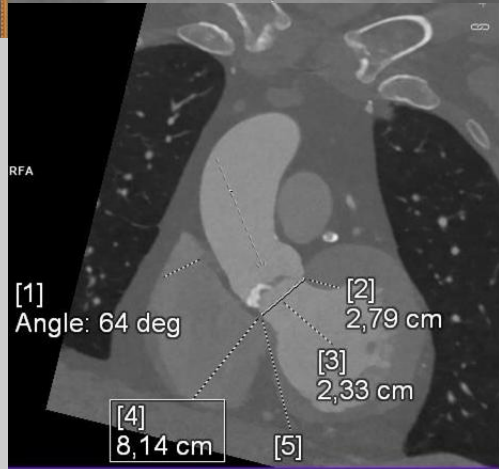
vyšší radiační zátěž







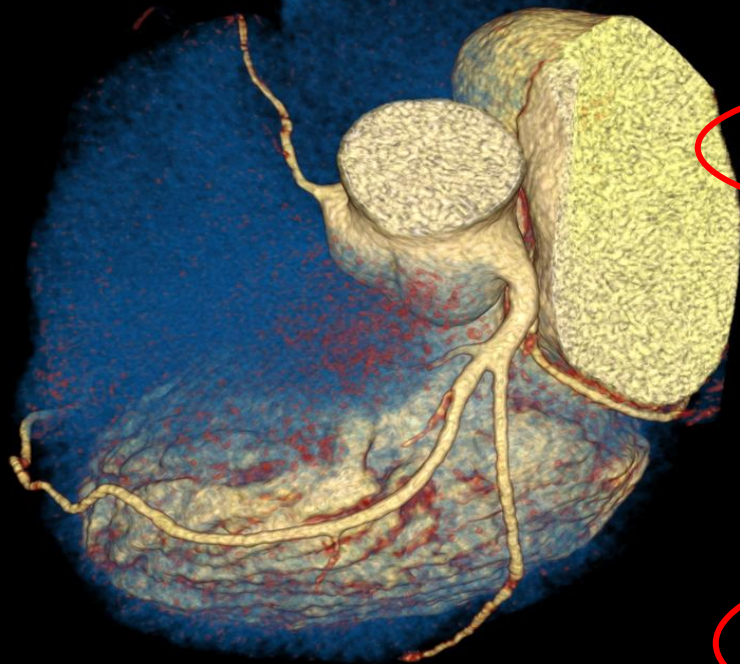
# TAVI



# CTA koronárních tepen

## 2025 ESC/EACTS Guidelines for the management of valvular heart disease

RFA



### Recommendations

Class<sup>a</sup>

Level<sup>b</sup>

### Diagnosis of coronary artery disease

CCTA is recommended before valve intervention in patients with moderate or lower ( $\leq 50\%$ ) pre-test likelihood of obstructive CAD. [122–124](#)

I

B

Invasive coronary angiography is recommended before valve intervention in patients with high and very high ( $>50\%$ ) pre-test likelihood of obstructive CAD.

I

C

Invasive coronary angiography is recommended in the evaluation of CAD in patients with severe ventricular SMR.

I

C

Omission of invasive coronary angiography should be considered in TAVI candidates, if procedural planning CT angiography is of sufficient quality to rule out significant CAD. [125–129](#)

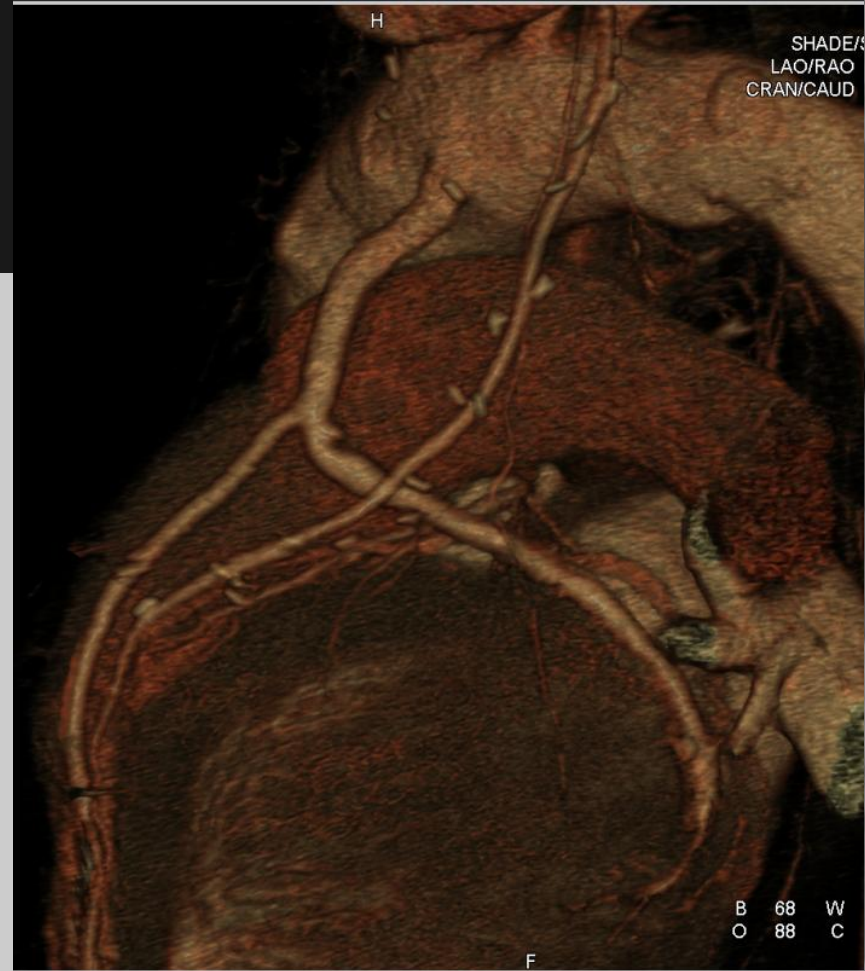
IIa

B

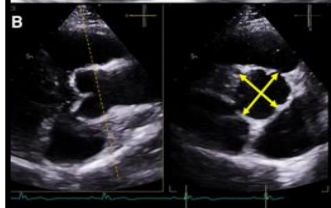
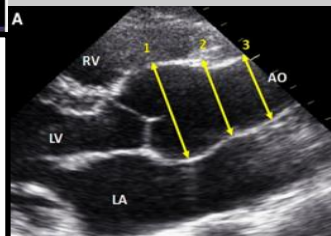
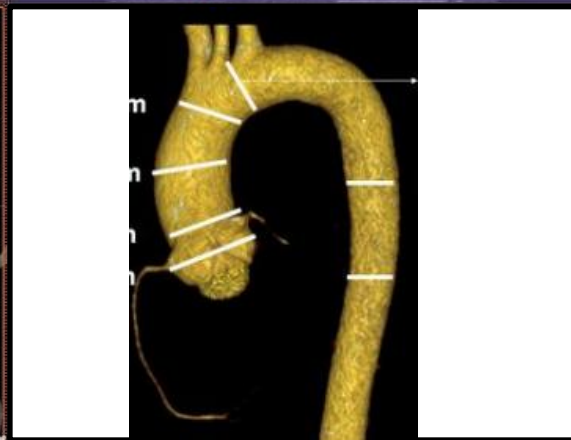
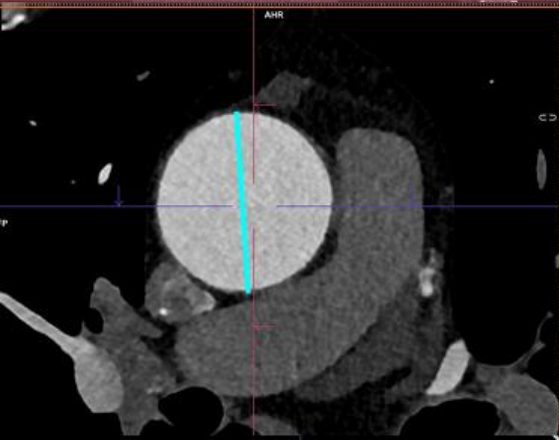
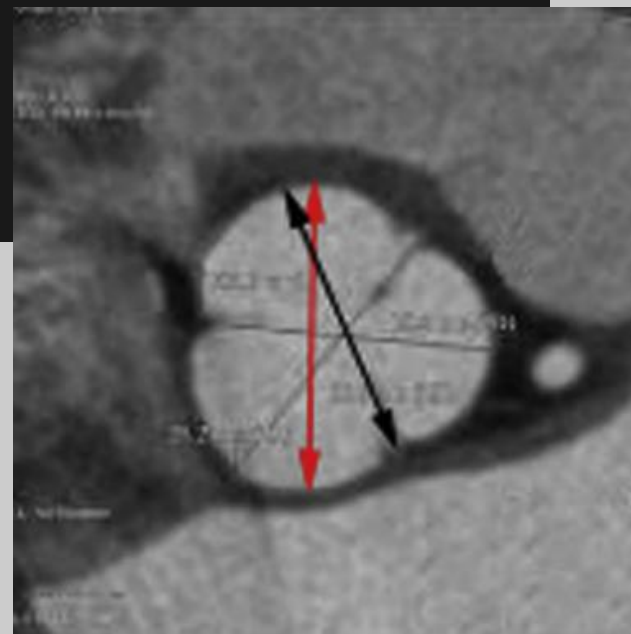
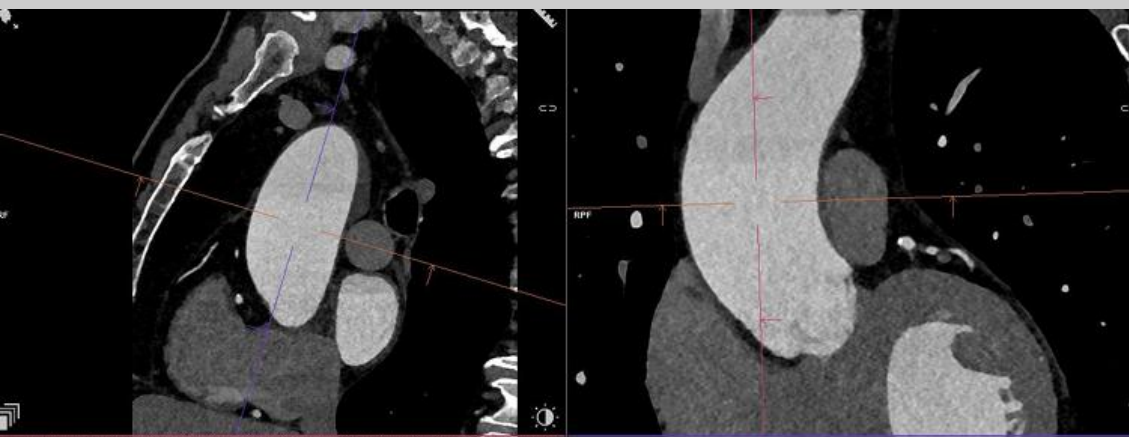
Recommendations in 2021 version	Class <sup>a</sup>	Level <sup>b</sup>	Recommendations in 2025 version	Class <sup>a</sup>	Level <sup>b</sup>
<b>Management of coronary artery disease in patients with valvular heart disease—Section 6.1</b>					
CCTA should be considered as an alternative to coronary angiography before valve surgery in patients with severe VHD and low probability of CAD.	<b>IIa</b>	<b>C</b>	CCTA is recommended before valve intervention in patients with moderate or lower ( $\leq 50\%$ ) pre-test likelihood of obstructive CAD.	<b>I</b>	<b>B</b>



# stenty



# anatomie a rozměry











# kalciové skóre

## 2025 ESC/EACTS Guidelines for the management of valvular heart disease

primárně pro koronární tepny (*Agatston score*)

### low-flow low-gradient AS

koreluje s hemodynamikou, progresí a “*outcome*”

#### muži:

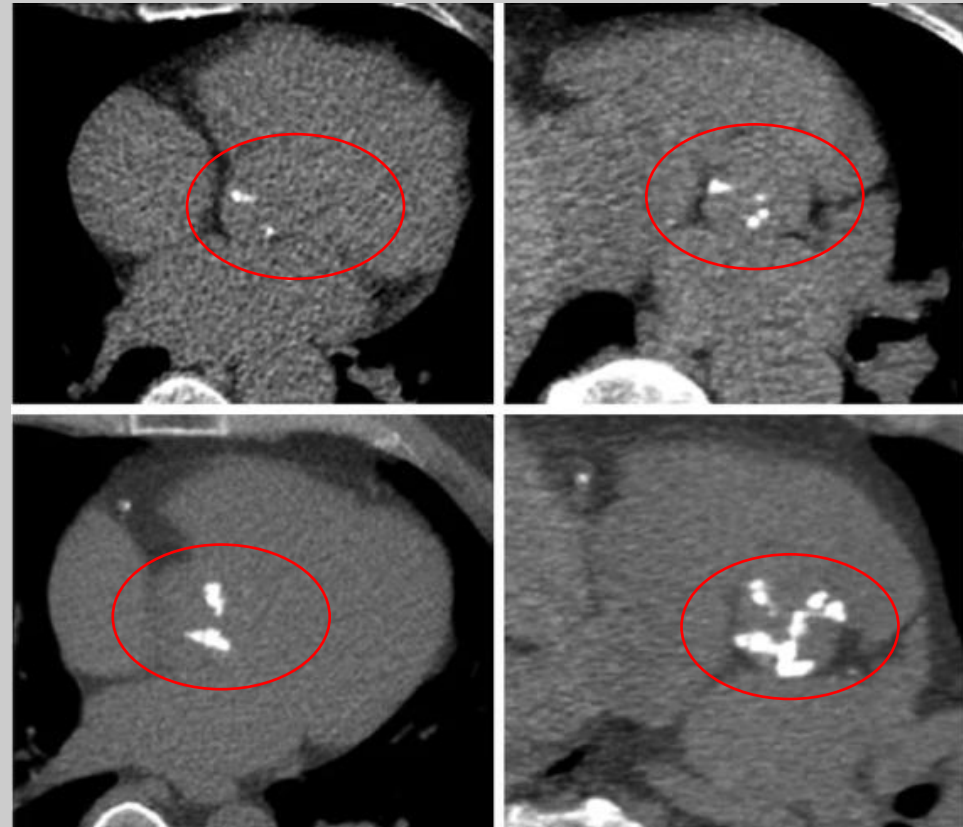
- Agatston > 2000: Highly likely to be severe
- Agatston > 3000: certain severe AS.

Agatston < 1600: nepravděpodobná

#### ženy:

- Agatston > 1200: Highly likely to be severe
- Agatston > 1600: certain severe AS.

Agatston < 800: nepravděpodobná



# kalciové/Agatstonovo skóre

120 kV a 3 mm vrstvy!!!

hranice pro kalcifikaci: > 130 HU

objem kalcifikace (ml) x váhový faktor

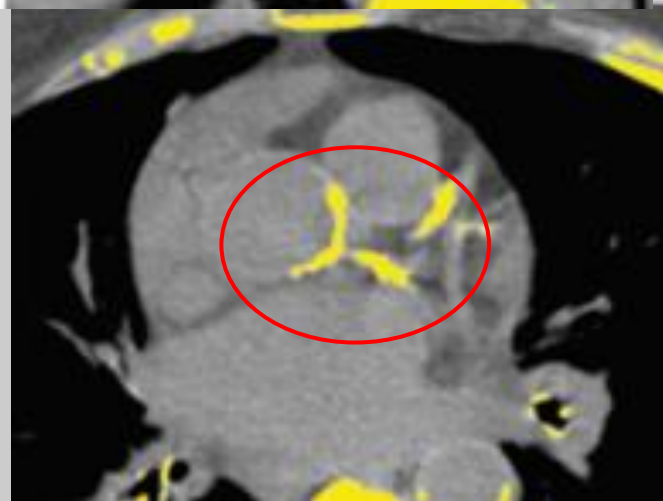
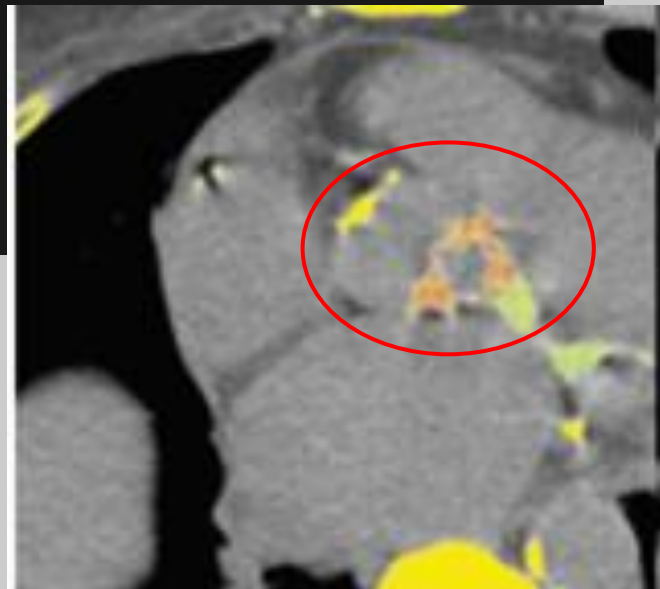
Peak Density of Lesion (HU) Weighting Factor

130 - 199 HU.....1

200 - 299 HU.....2

300 - 399 HU.....3

>400 HU.....4



# CT srdce



ESC

European Society  
of Cardiology

European Heart Journal (2025) 46, 4635–4736  
<https://doi.org/10.1093/eurheartj/ehaf194>

ESC GUIDELINES

**2025 ESC/EACTS Guidelines for the  
management of valvular heart disease**

kalciové skóre

komplexní anatomické hodnocení

cílené vyšetření chlopní a náhrad  
(4D CT)

koronární tepny



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## Výpočetní tomografie

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# technika

urgentní stav

variabilní klinické příznaky  
“náhodný” nález

CT / CT angiografie

celotělová/kombinovaná vyšetření  
artefakty z pulzace

