SOLACI SOCIME'25
MEXICO CITY

MANAGEMENT OF MIXED CARDIOVASCULAR DISEASE (SEVERE CALCIFIC AORTIC STENOSIS + LEFT MAIN CORONARY DISEASE IN UNSTABLE PATIENT).

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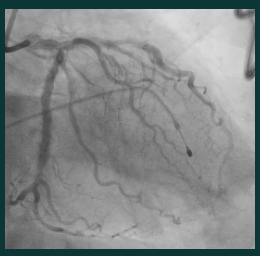
INTRODUCTION

Balloon Aortic Valvuloplasty (BAV): Current Indications
(ESC/EACTS 2023 Guidelines - Class IIb/C Recommendations)
1. Bridge to Definitive Therapy
For **hemodynamically unstable patients** requiring:
Surgical AVR (after stabilization)
Emergency TAVI (in centers with rapid escalation capacity)
2. Palliation Before Urgent Non-Cardiac Surgery
Symptomatic severe AS patients needing: Cancer resection /. Sepsis source control
3. Diagnostic Clarification
For **low-flow, low-gradient AS** with:
Uncertain symptom etiology
Discordant echocardiographic findings
4. Rescue Therapy for Reversible Organ Dysfunction
Severe myocardial dysfunction (LVEF <30%)
Pre-renal failure (creatinine >2.5 mg/dL)
Prerequisite: Must be performed in hybrid suites capable of immediate TAVI.

CLINICAL CASE

A 83-year-old male with medical history: Type 2 diabetes mellitus and Dyslipidaemia. No prior cardiovascular events
Symptom Evolution: Progressive exertional dyspnea (NYHA Class II-III) since 2022. Echocardiographic Findings: Aortic valve mixed lesión (stenosis-predominant) peak gradient 67 mmHg. Mean gradient 42 mmHg. Valve area 1.4 cm2. LVEF 58%.

Coronary Angiography with Multi-Vessel desease with LMCA Involvement. Heart Team Decision: Staged Approach Approved: Phase 1: Balloon aortic valvuloplasty (BAV) and Phase 2: Elective PCI to LMCA-LAD-LCx

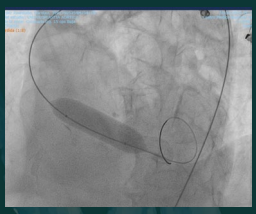

Diagnostic coronary angiography

DIAGNOSTIC CORONARY ANGIOGRAPHY

LMCA: Ectatic, with a 70% lesion in the shaft.
LAD: Ectatic. Proximal segment with a 90% lesion; mid segment with a 90% lesion.
Cx: Ectatic. Proximal segment with a 95% lesion; distal segment with an 80% lesion.
RCA: No lesions identified.

BALLOON AORTIC VALVULOPLASTY

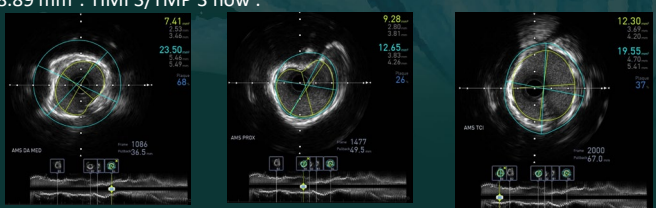
Balloon Selection: Sequential dilation:**4.0 × 15 mm** Maxi LD balloon (initial) then **4.0 × 18 mm** Maxi LD balloon (upsizing)
Hemodynamic Outcome:Peak-to-peak gradient: Post-BAV: 20 mmHg (70% reduction)


Balloon Aortic Valvuloplasty

LMCA, LAD AND CX ICP

Pre-Dilatation with NC balloon: 2.5 × 15 mm mid-to-proximal LAD segment. IVUS Assessment Mid segment circumferential calcium (360°) at Lesion site with MLA 2.68 mm2 and burden plaque 68%. Proximal segment with circumferential calcium (>270°) with MLA 3.62 mm2 and burden plaque 64%. Sequential predilatation: LCx: 2.5 x 15 mm NC balloon and 3.5 x 20 mm NC with proximal emphasis. After in proximal LAD to LMCA 3.5 x 20 mm NC balloon. Stent deployment sequence: 3.5 x 33 mm EES in LAD-LMCA then POT with 4.0 x 33 mm NC balloon TAP-stented LCx ostium wit EES 3.5 X 33 mm. POT with 3.5 x 20 mm NC balloon in middle and distal third of the stent and 4.5 x 20 mm NC balloon in LMCA. Kissing Balloon technique executed with LAD-LMCA: 3.5 × 20 mm NC balloon LCx: 3.5 × 33 mm NC balloon. Procedure concluded with Favorable outcomes in stent implantatio; the LAD 9.28mm², LMCA 12.3mm², and LCx 8.89 mm². TIMI 3/TMP 3 flow .


Final coronary angiographic


Final IVUS aasessment in LAD middle segment (image in the left), LAD medium segment (image on the centrer) and LMCA (image on the right)