

3D TEE Mitral Valve Pathology

Dr Annette Vegas
Staff Anesthesiologist
Director Perioperative Echocardiography
Professor University Toronto



Toronto General Hospital
University Health Network





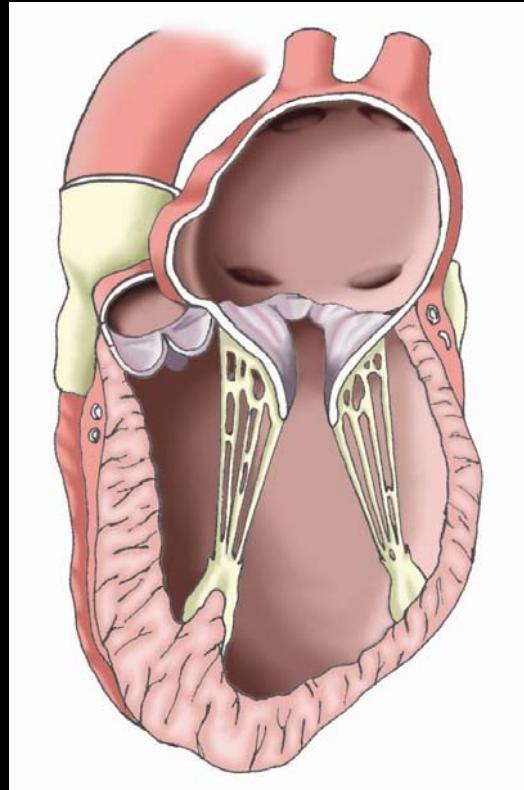
Mitral Valve Pathology

Leaflet

- Prolapse, Flail
- Myxomatous
- Perforation
- Cleft
- Endocarditis
- Calcific
- Rheumatic

Chordae

- Rupture
- Restricted



Annulus

- Dilated LV/LA
- Calcification (MAC)

Papillary Muscle

LV Function

- HOCM



Lossy Compression - not intended for diagnosis

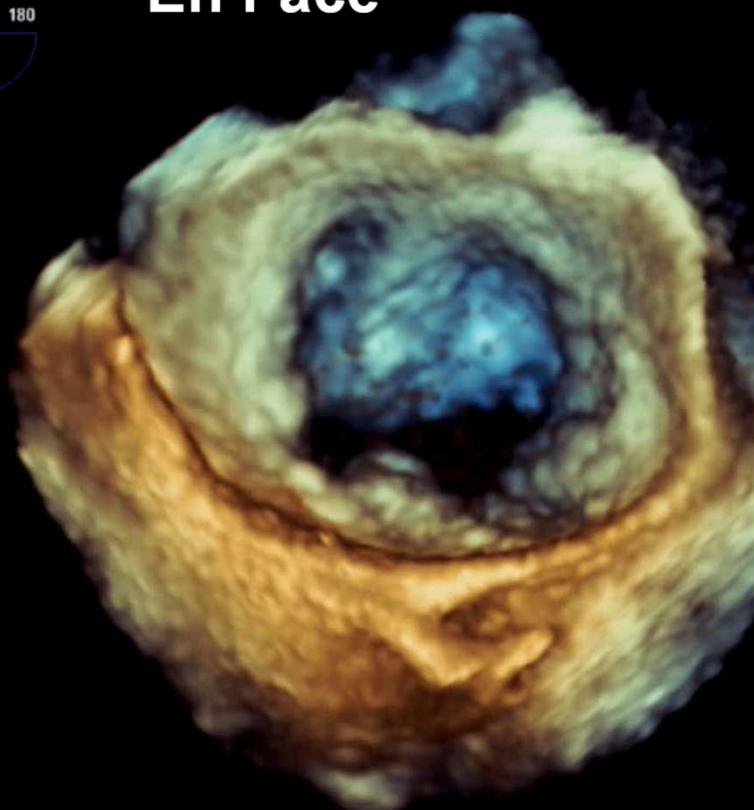
6.2cm

Live 3D
3D 44%
3D 35dB
Res



Diagnosis

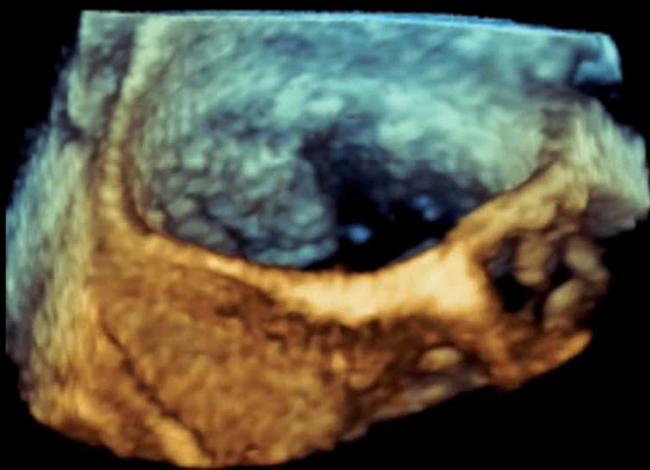
En Face



Step 1: En Face

- A. A2, P2
- B. A1, P1
- C. A1+2, P1+2
- D. A2+3, P1+2+3
- E. A1-3, P1-3

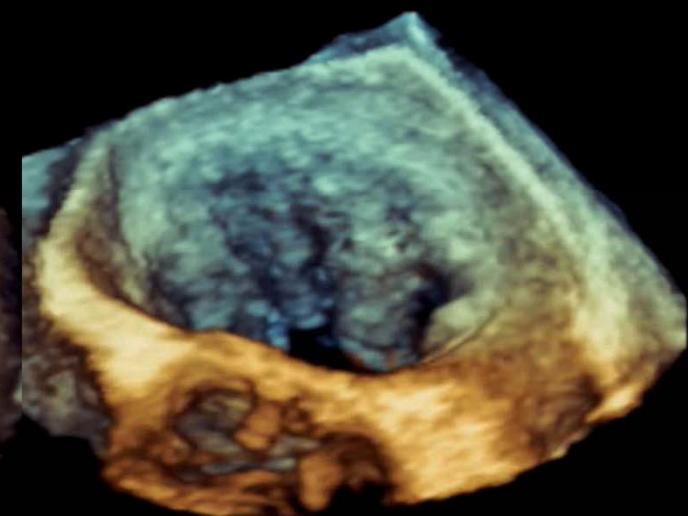
Anterolateral Angle



Posteromedial Angle



Scallop Angle



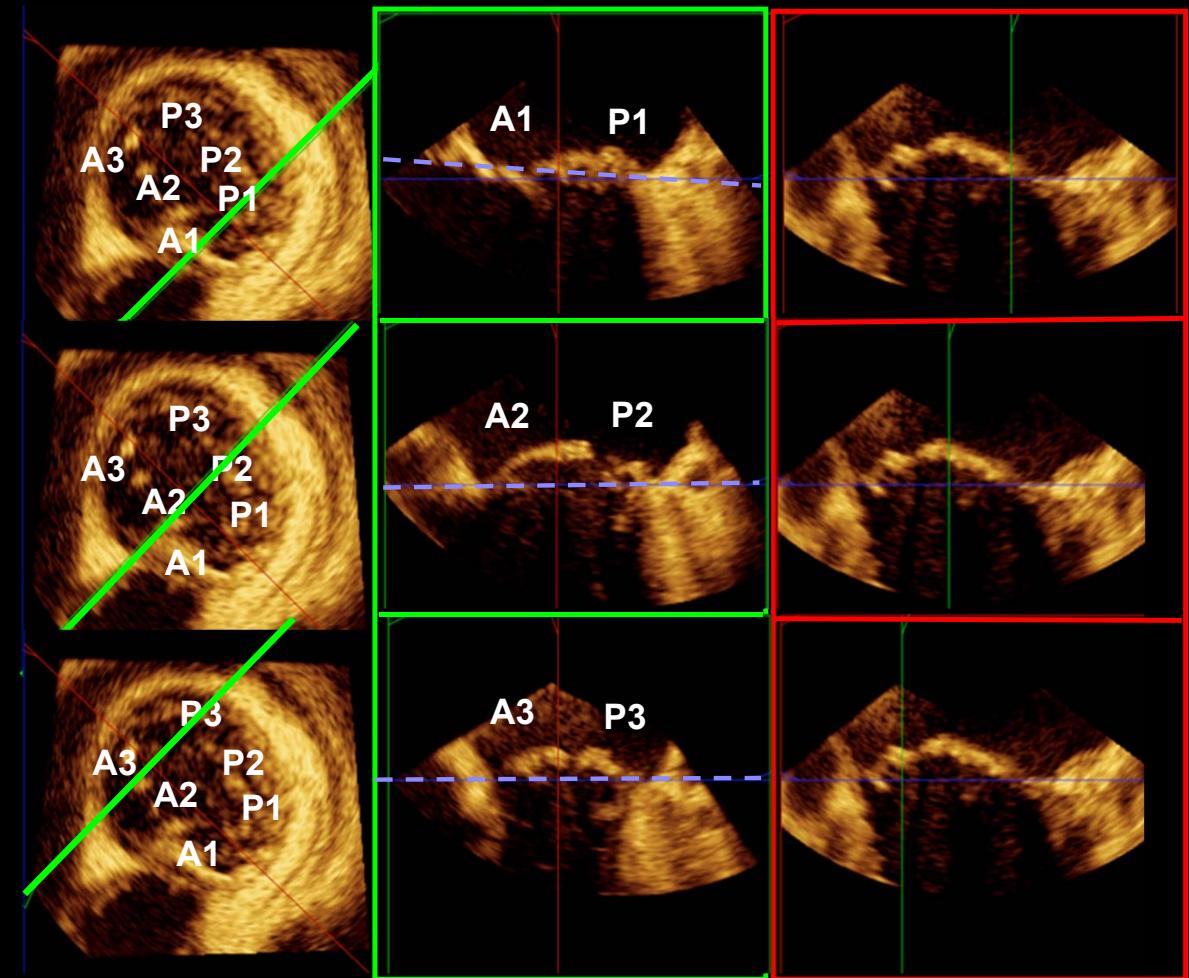
Step 2: Angled

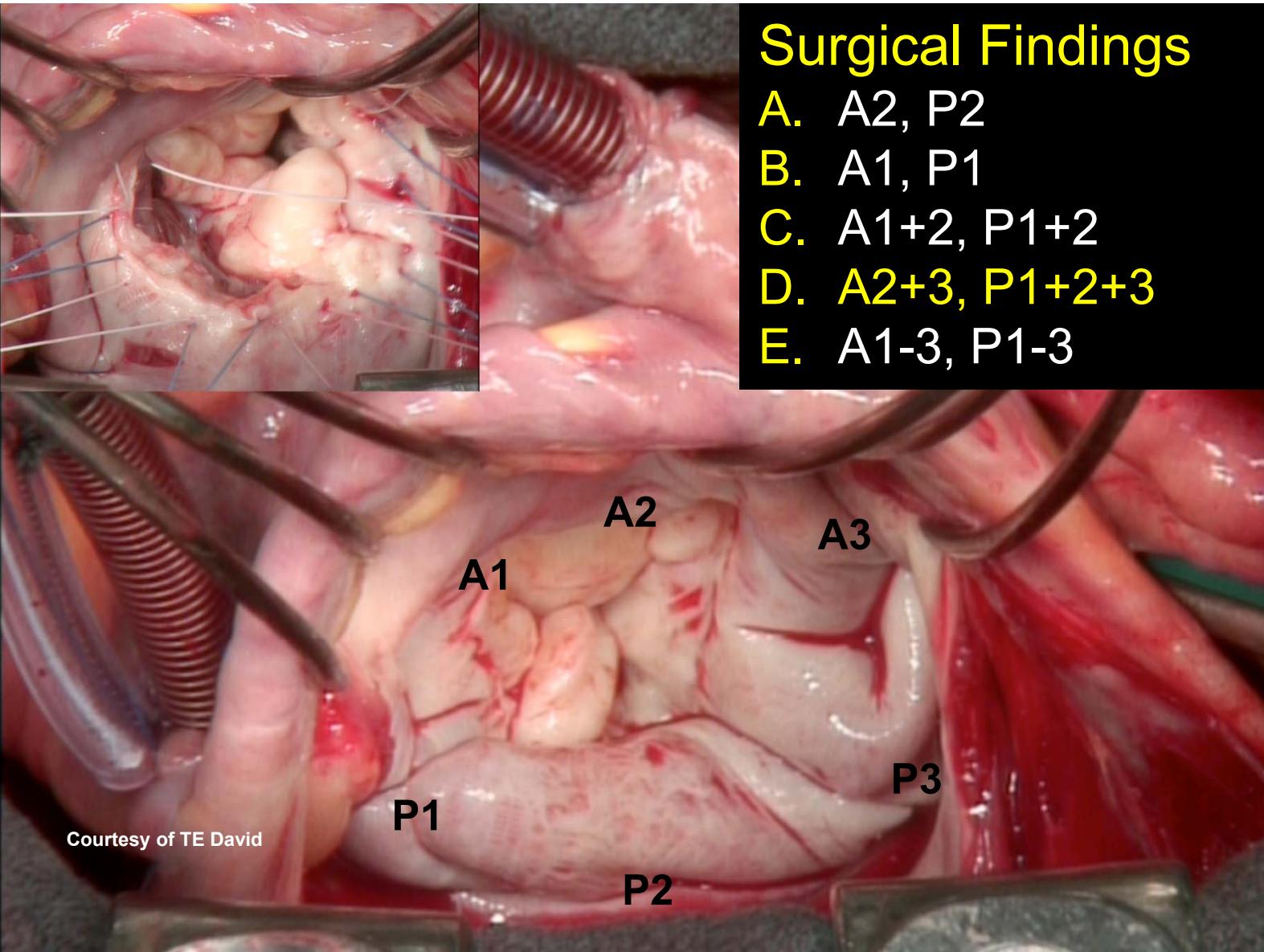
- A. A2, P2
- B. A1, P1
- C. A1+2, P1+2
- D. A2+3, P1+2+3
- E. A1-3, P1-3



Step 3: 3D MPR

- A. A2, P2
- B. A1, P1
- C. A1+2, P1+2
- D. A2+3, P1+2+3
- E. A1-3, P1-3







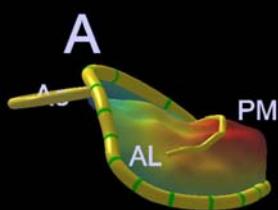
74M with MR

En Face

0 150 180



JPE



Fibroelastic P2 Flail
Resection P2 + band



59F with MR

OR
X7-2t
38Hz
7.7cm

3D Zoom
2D / 3D
% 45 / 44
C 47 / 30
Gen

3D Beats 4



TIS0.1 MI 0.3

M4



PAT T: 37.0C
TEE T: 38.8C



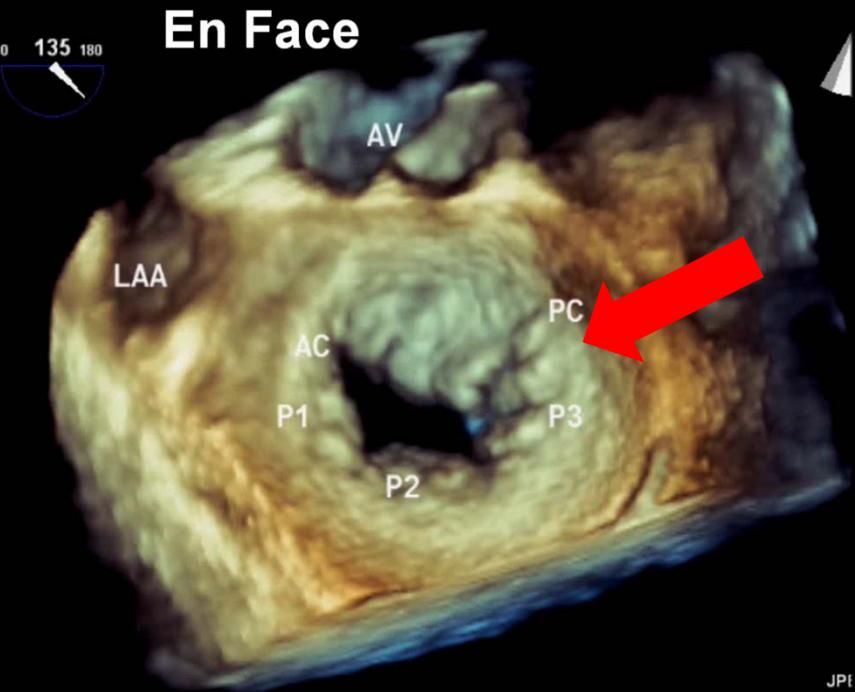
Delay 0ms

73 bpm

P3 prolapse + MAC
t MVR



74M redo, MR + CAD



JPE

A3/P3 prolapse

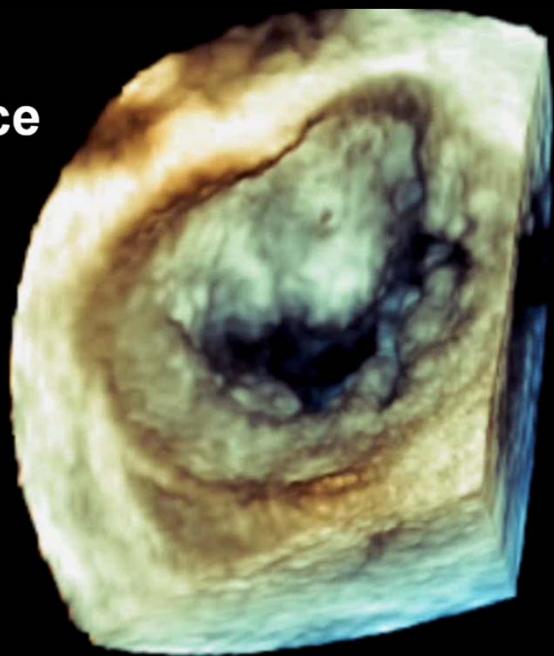
MVR + ACB = 90'



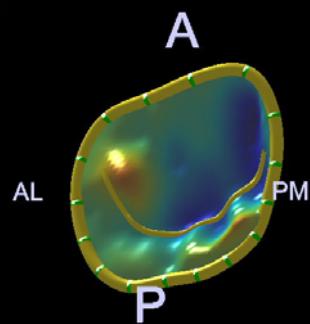
0 0 180

En Face

63M with MR



JPE



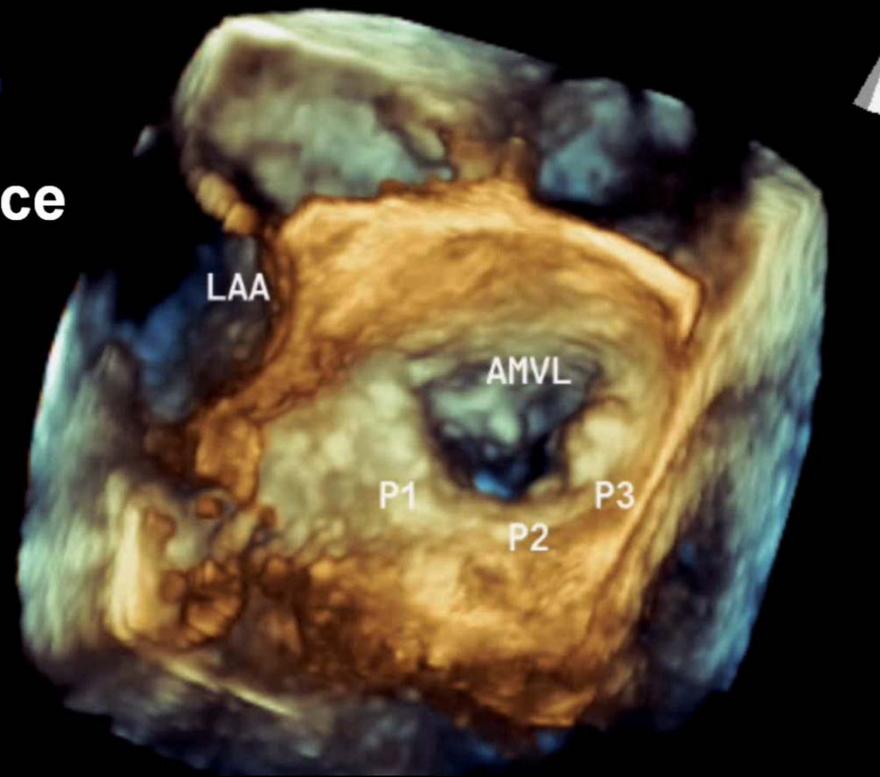
A1 prolapse
Gortex + band



67F intubated CHF



En Face



P3 flail, retracted AMVL
26mm septum, MAC



62F with MR



En Face



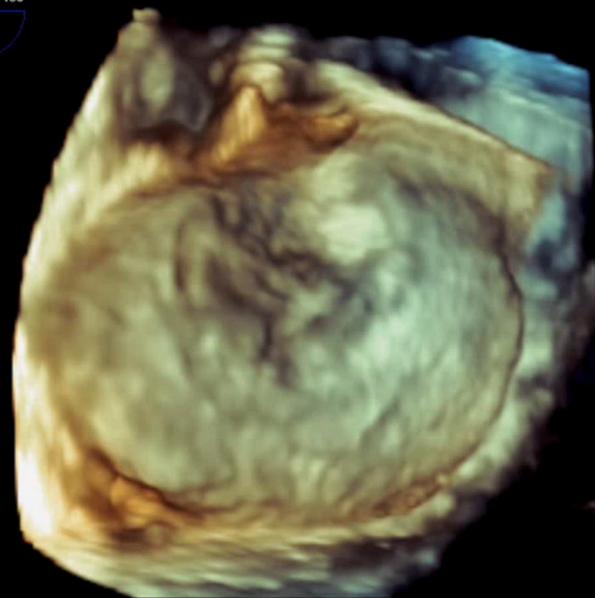
Granuloma
tMVR



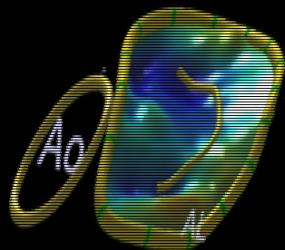
74F with MR



En Face



JPI



Rheumatic MS
tMVR

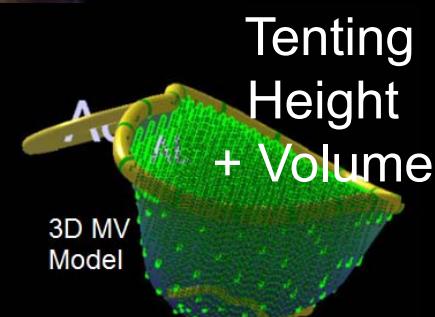


59F with MR + CAD

En Face



ACB x 3
MV repair or MVR

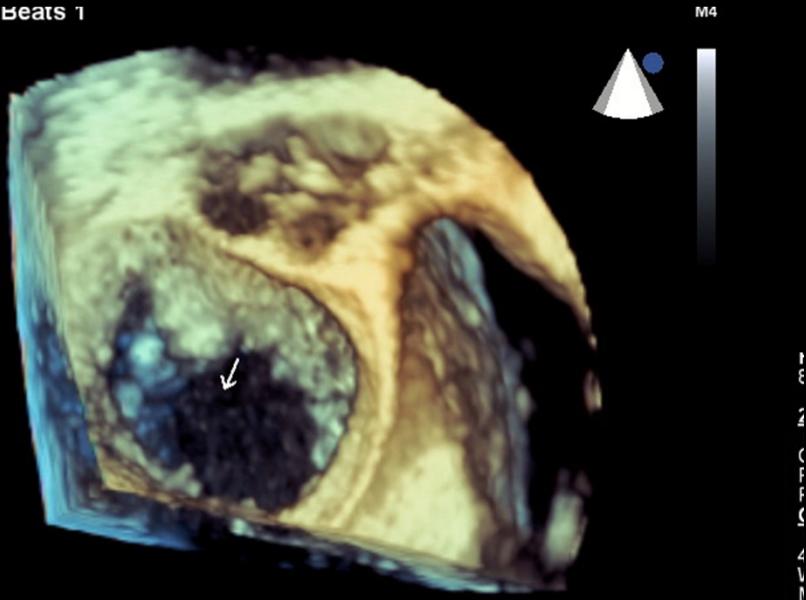




59F with MR

TR 6Hz
6.6cm

3D 39%
3D 40dB



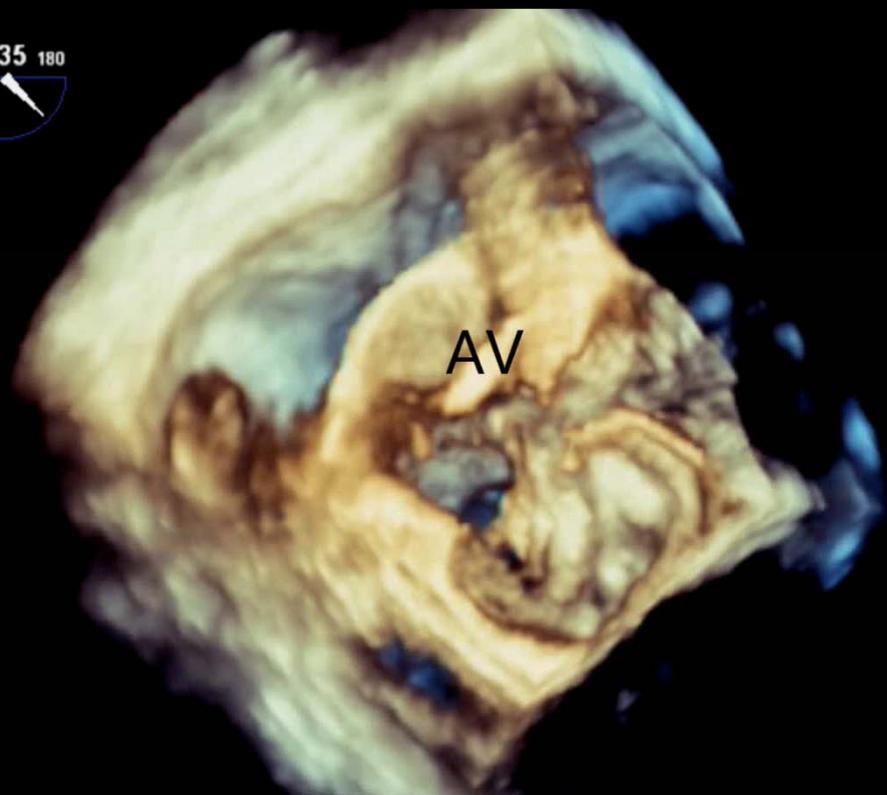
JPEG
80 bpm

Perforation
t MVR



Clefts MV

e 0 135 180



0 130 180

c





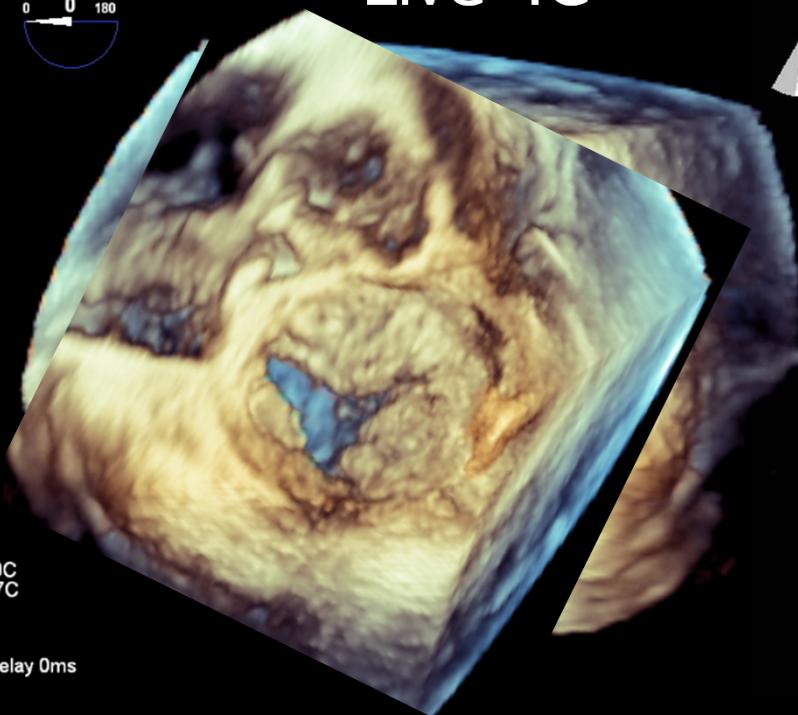
Diagnosis

Adult Echo

X7-2t
14Hz
11cm
Live 3D
2D / 3D
% 51 / 52
C 50 / 30
HPen

3D Beats 2

Live 4C



PAT T: 37.0C
TEE T: 38.7C

TIS0.2

Adult Echo
X8-2t
15Hz
7.3cm
3D Zoom
2D / 3D
% 43 / 48
C 50 / 30
Pen

3D Beats 1



54 bpm



Diagnosis

The Trileaflet Mitral Valve

(Am J Cardiol 2018;121:513–519)



Jason Chui, MBChB^{a,*}, Robert H. Anderson, MD^b, Roberto M. Lang, MD^c, and Wendy Tsang, MD^d

	Trileaflet mitral valve	Isolated posterior cleft mitral valve	Trifoliate mitral valve in the setting of AVSDs with normal septum
Trifoliate morphological appearance of atrioventricular valve	✓	✓	✓
Abnormal atrioventricular valve leaflet configuration	<ul style="list-style-type: none">• 3 commissures with 3 zones of coaptation	<ul style="list-style-type: none">• a single cleft pointing toward LVOT• 2 zones of coaptation	<ul style="list-style-type: none">• 2 commissures with 2 zones of coaptation between superior bridging and mural leaflets, as well as inferior bridging and mural leaflets• A single cleft (or zone of apposition) between
Abnormal papillary muscle arrangement			
Inlet-outlet ratio	1.0	1.0	1.0
Sprung atrioventricular valve	Yes	No	Yes
Absence of the atrioventricular valve septum	No	Yes	No
Associated congenital anomalies	Yes	Yes	Yes
Abbreviations	* The report includes a detailed description of the morphological features of each type of mitral valve.		
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Thank You
annette.vegas@uhn.on.ca

