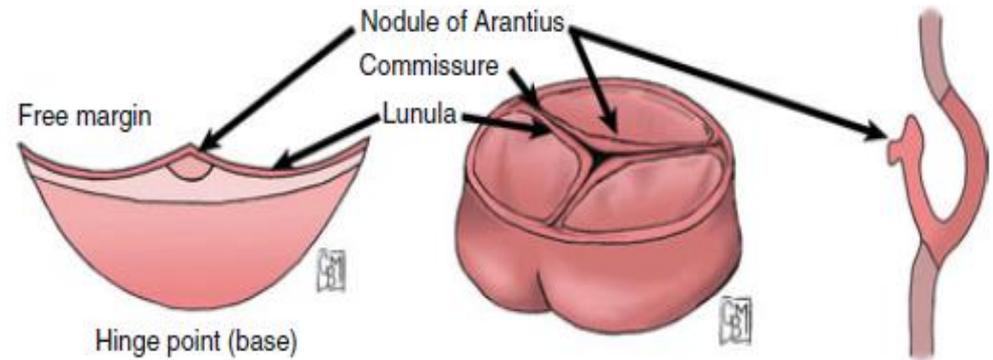
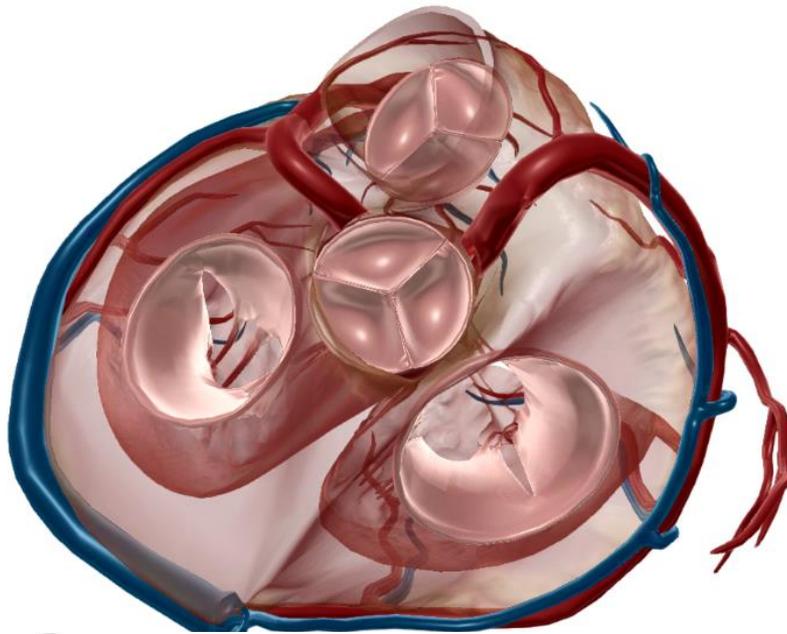
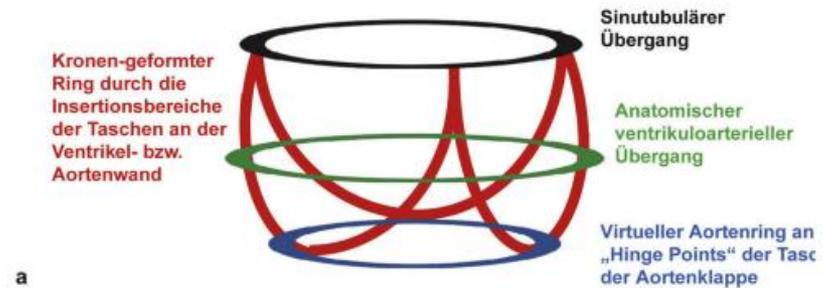
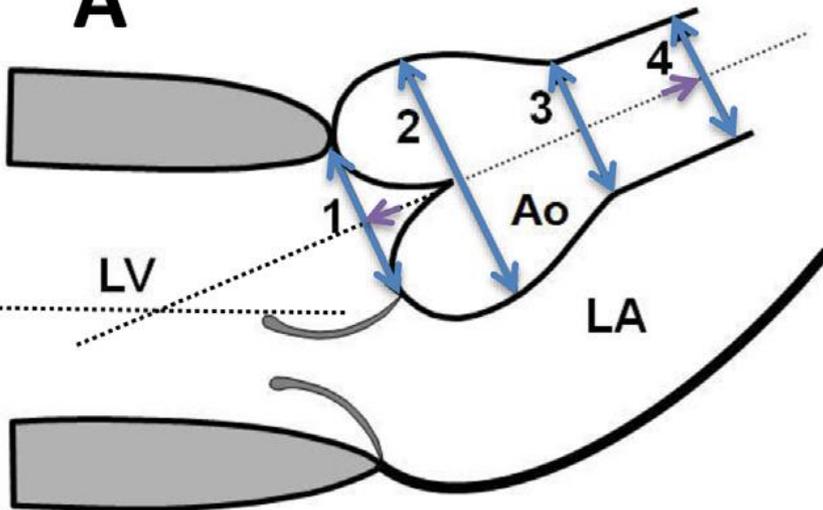


Beurteilung der Aortenklappe

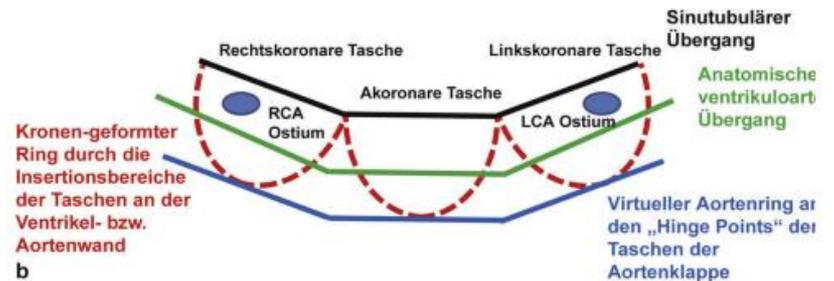
Anatomie der Aortenklappe



A



a

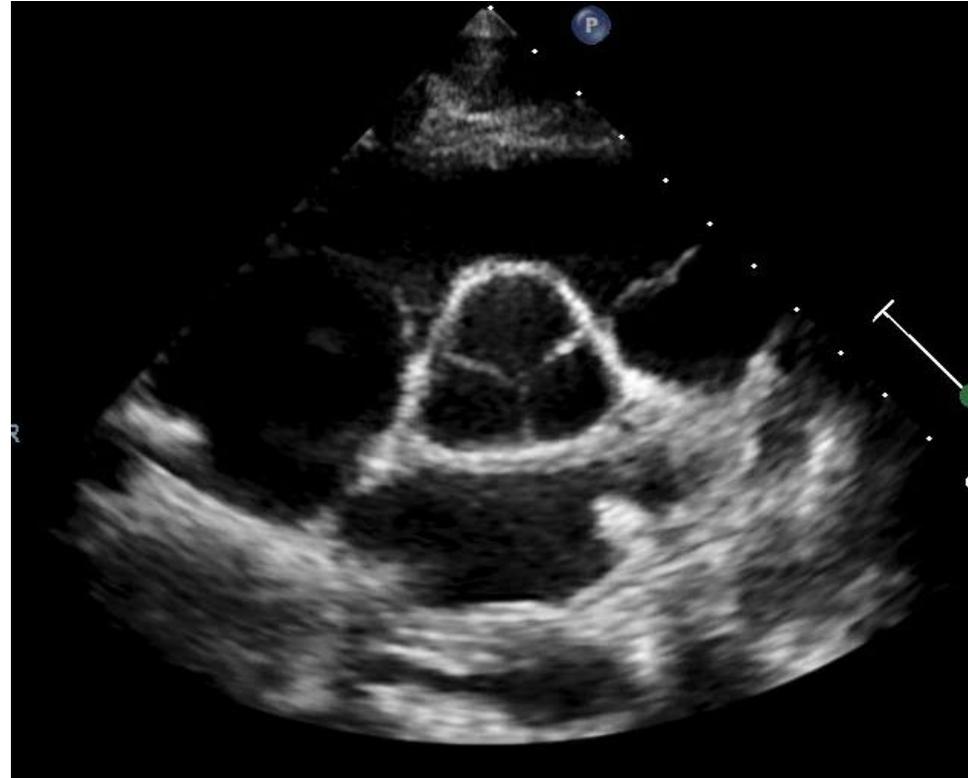


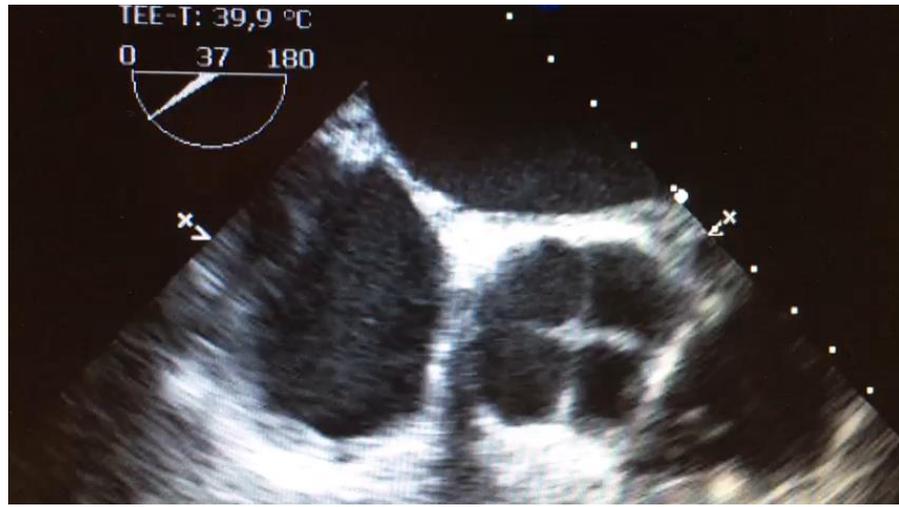
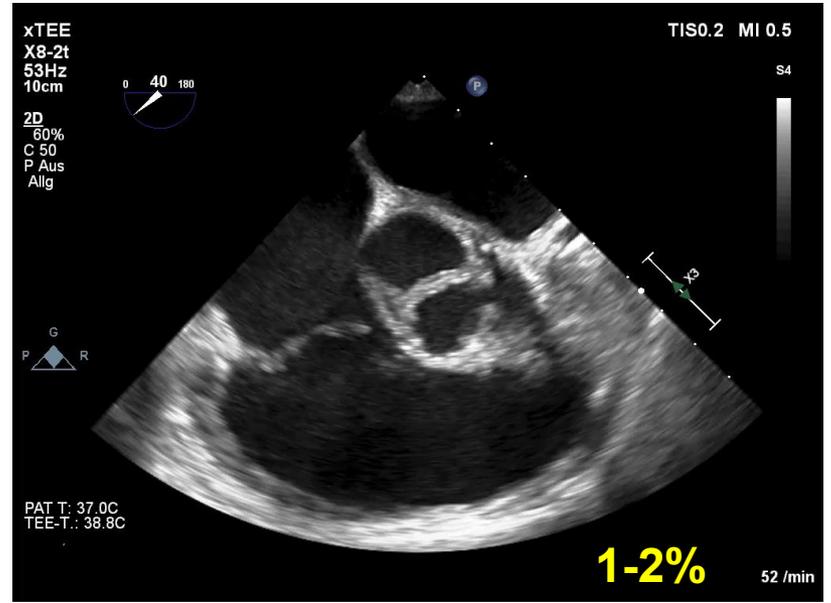
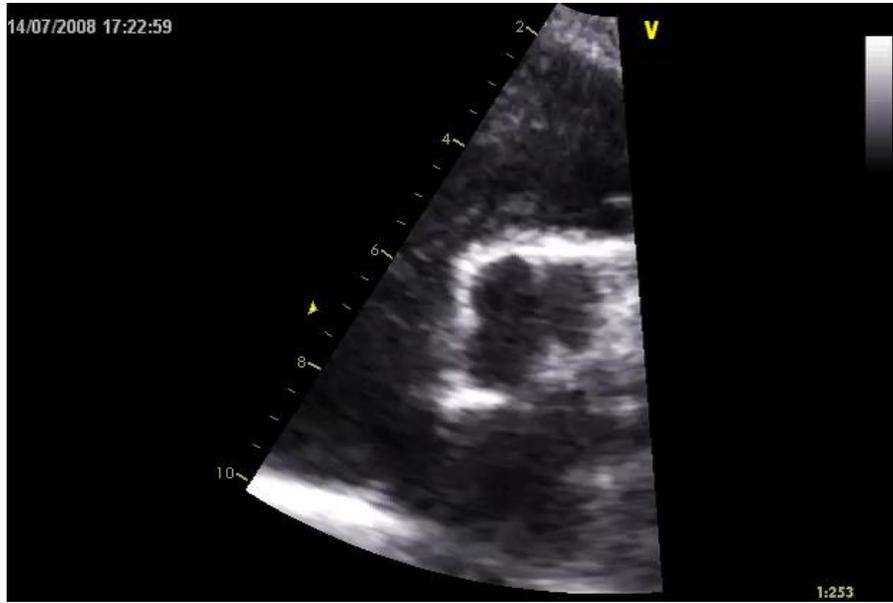
b

Normwerte der Aortenklappe

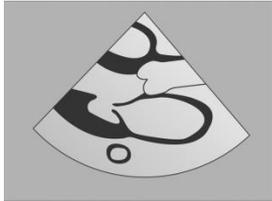
- Aortenklappenoberfläche 3-4 cm²
- Dicke der Aortenklappentaschen: 0.5-2 mm
- Länge der Aortenklappentaschen: 1.5-2.0 cm
- Systolische Exkursion der Aortentaschen: 70-90°
- Flussgeschwindigkeiten
 - LVOT: 0.7-1.1 m/s
 - AV: 1.0-1.7 m/s (>2 m/s pathologisch)

Aortenklappen Morphologie

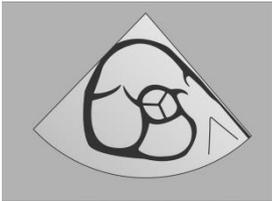




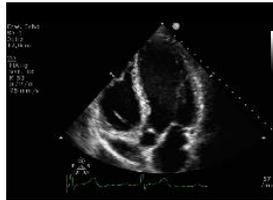
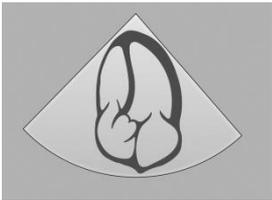
Anlotungen zur Beurteilung



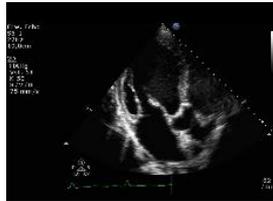
PLAX



RVOT



A5Ch



A3Ch

Erw. Echo

X5-1
50Hz
14cm



TIS0.3 MI 1.3

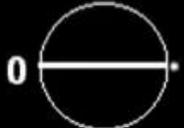
0M3

2D
63%
C 50
P Min.
HAllg



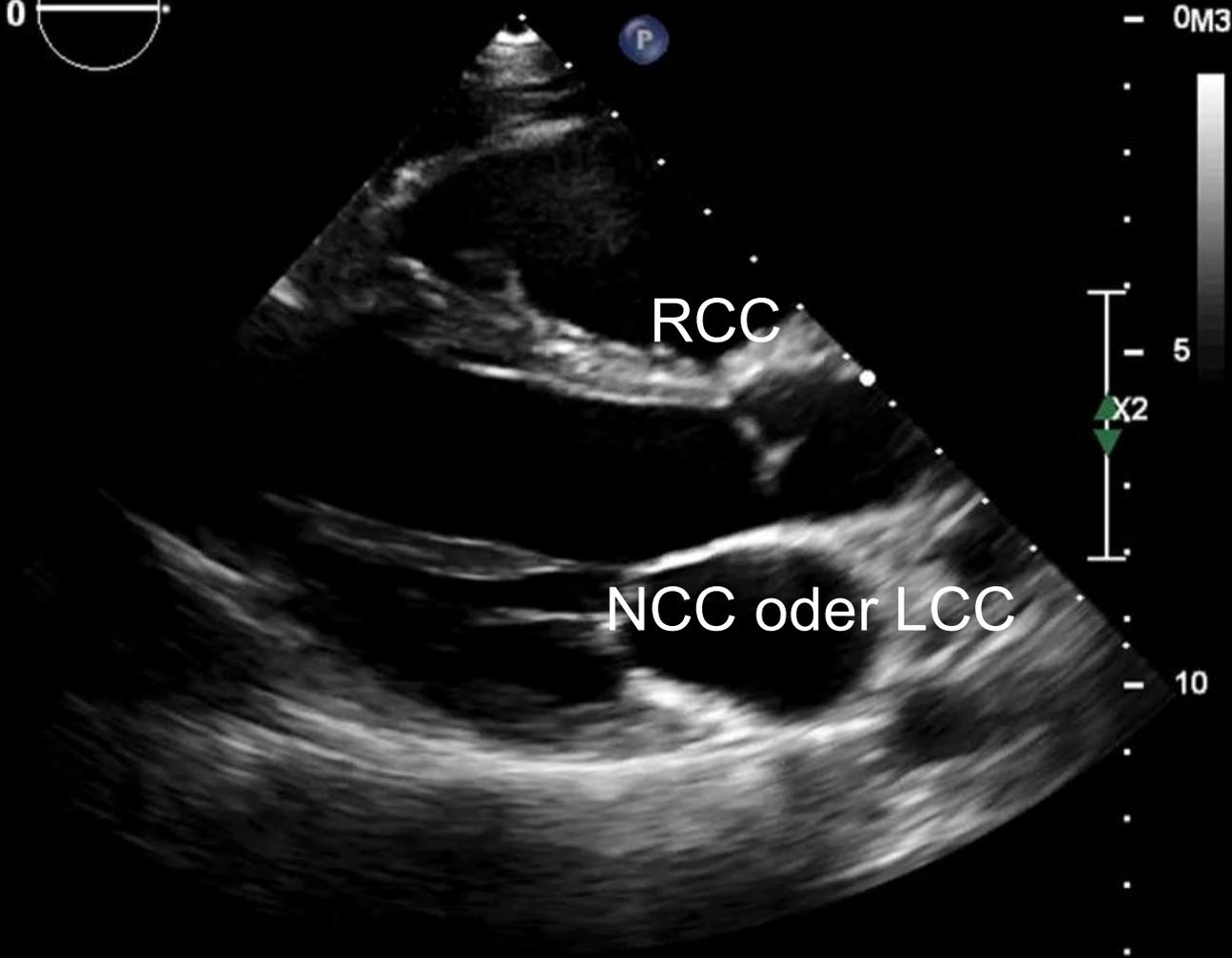
63 /min

Erw. Echo
X5-1
50Hz
14cm



TIS0.3 MI 1.3

2D
63%
C 50
P Min.
HAllg



63 /min

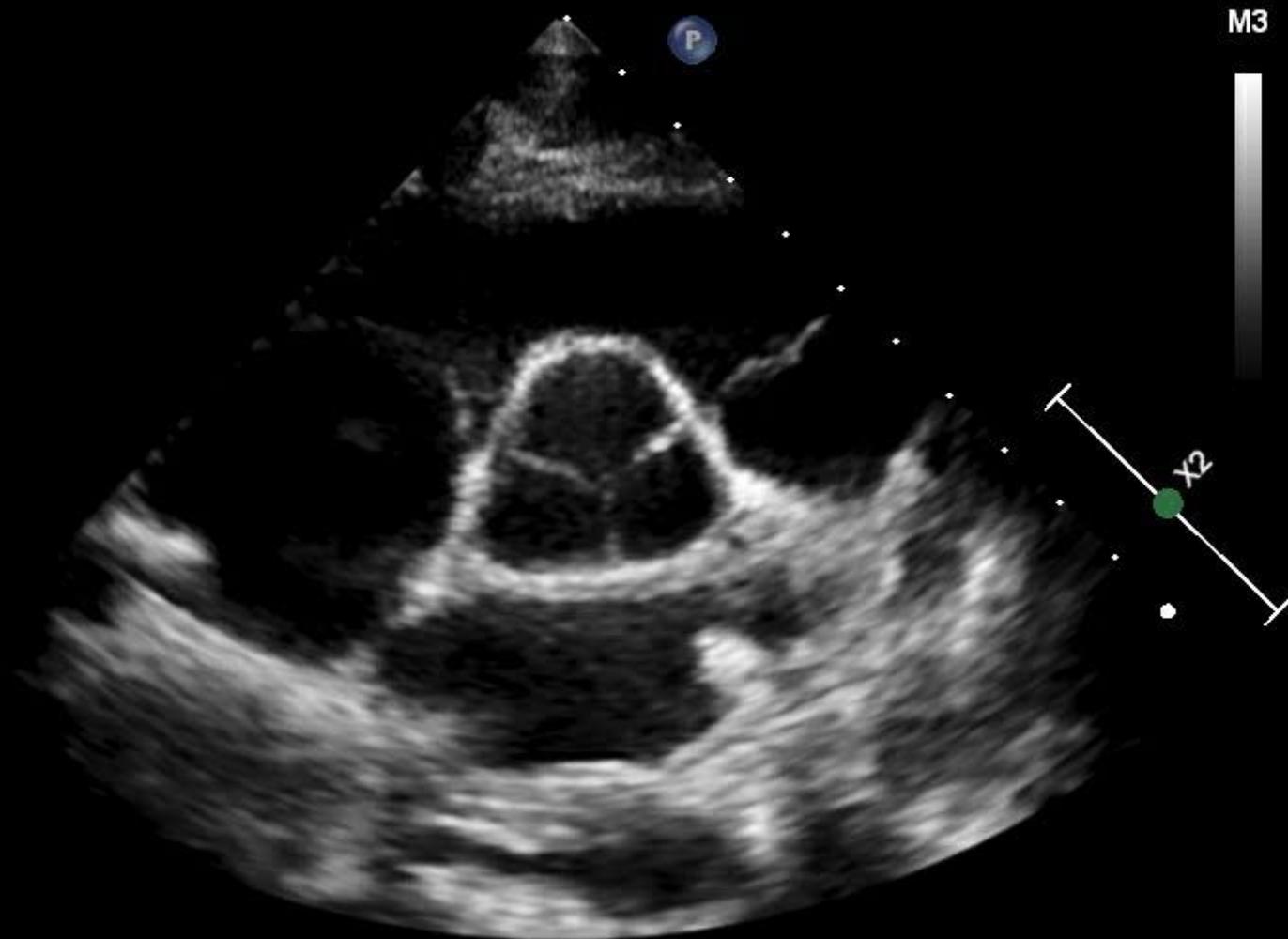
Erw. Echo

S5-1
59Hz
12cm

2D
68%
C 50
P Min.
HAllg

TISO.8 MI 1.4

M3



133 /min

Erw. Echo

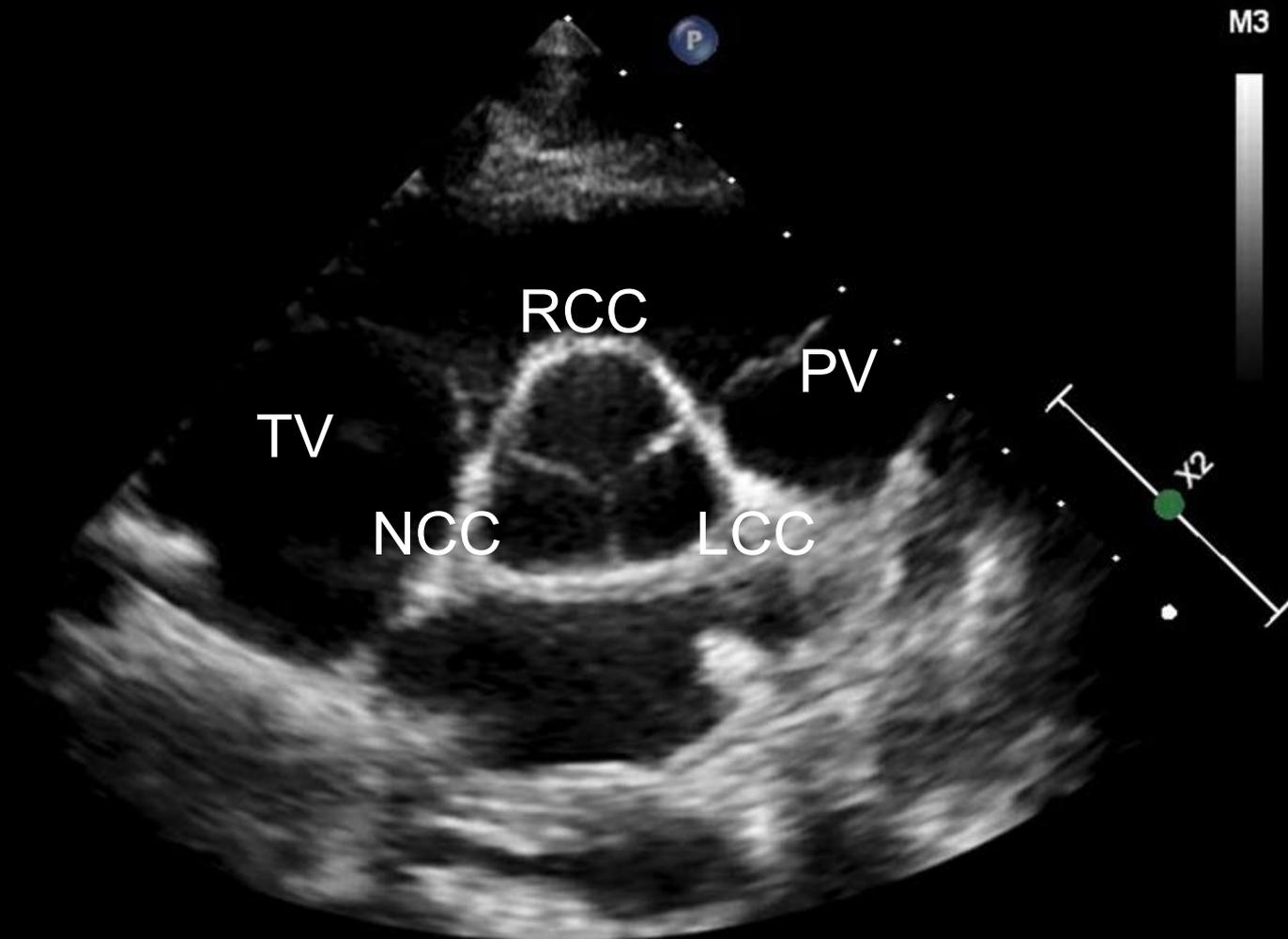
S5-1
59Hz
12cm

2D
68%
C 50
P Min.
HAllg



TIS0.8 MI 1.4

M3



133 /min

BF 43Hz
19cm

S3

2D
69%
K 49
M Niedrig
HAllg

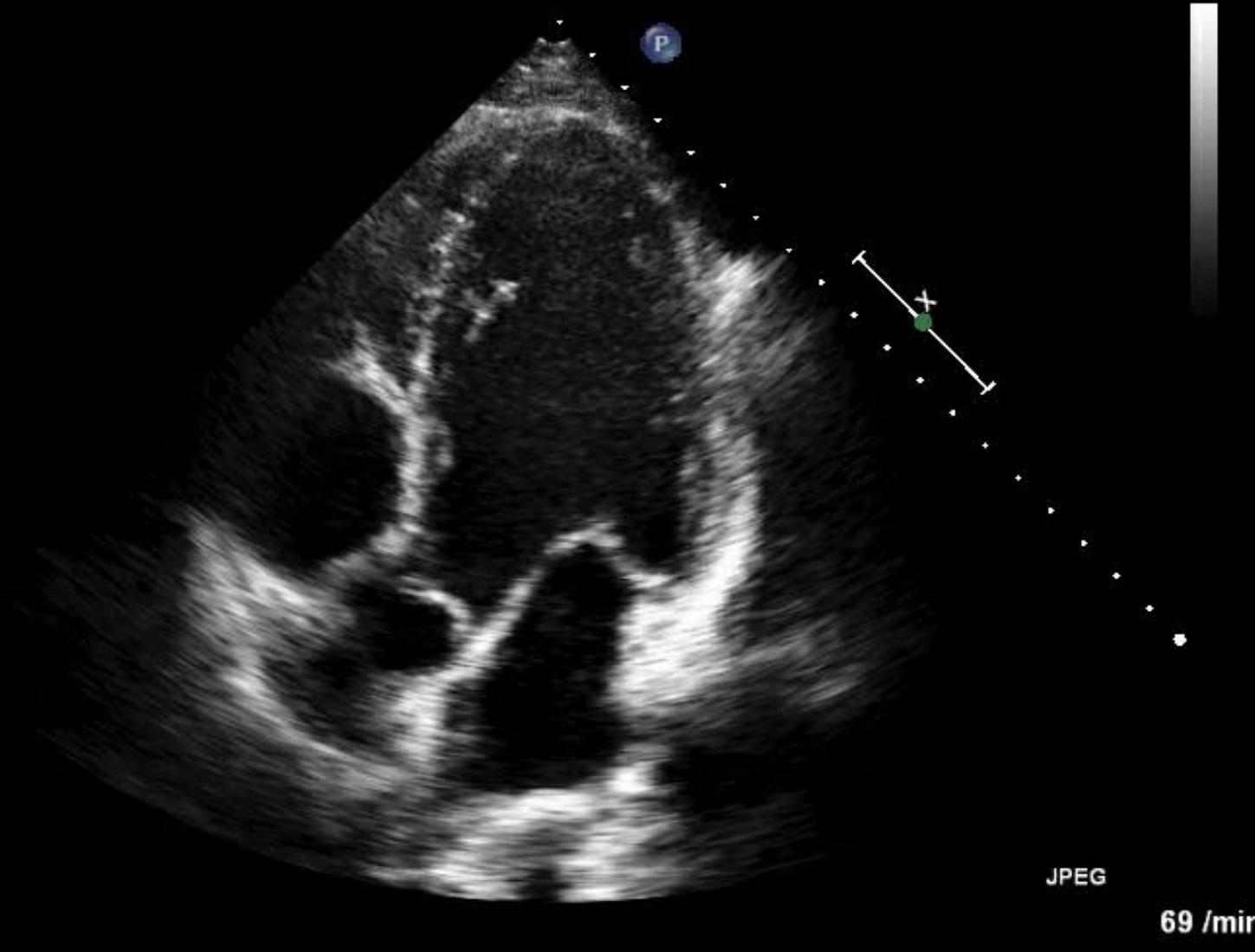
ital
LHUSEN



1

JPEG

69 /min



BF 43Hz
19cm

S3

2D
69%
K 49
M Niedrig
HAllg

ital
LHUSEN

RCC NCC oder LCC



JPEG

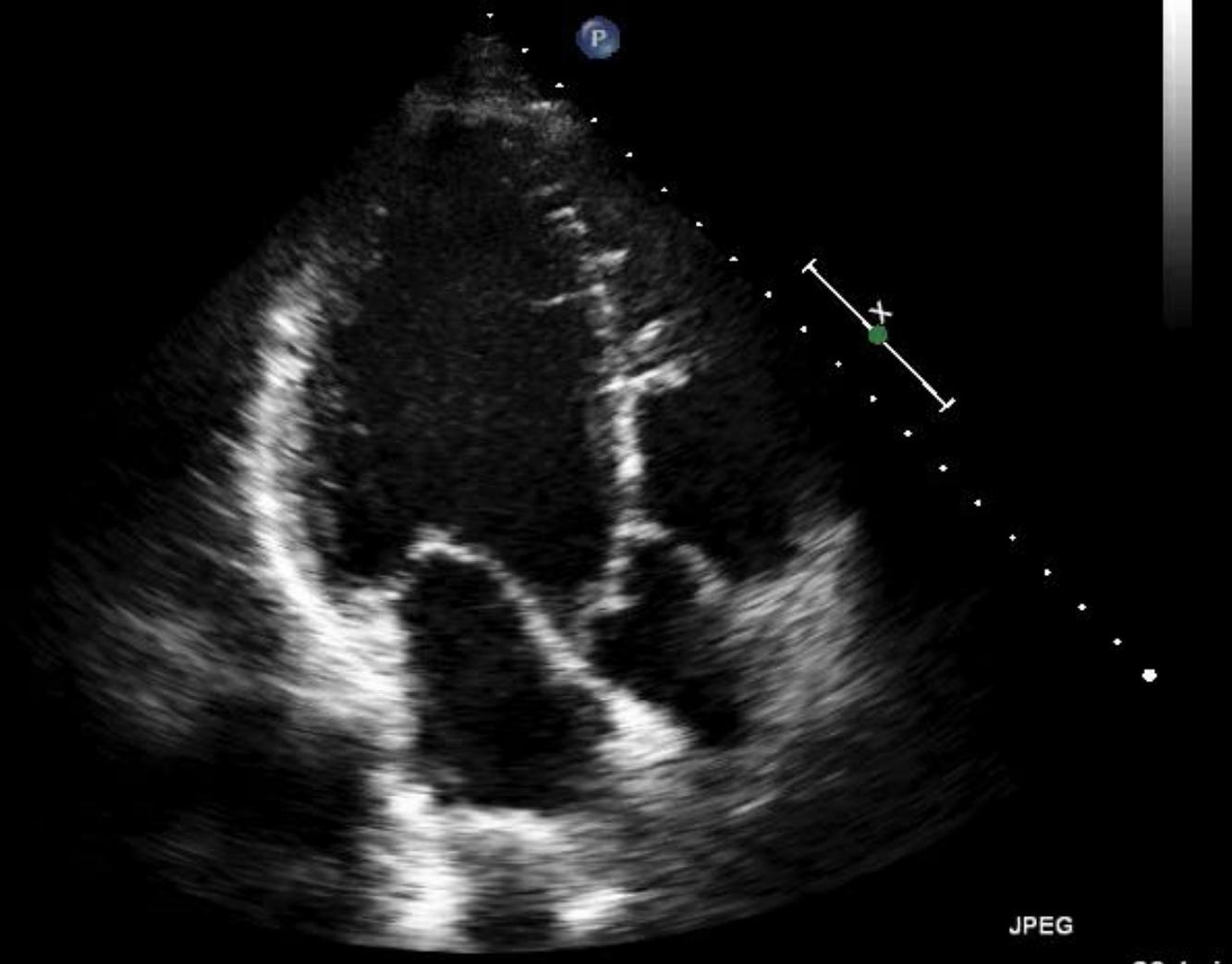
69 /min

BF 43Hz
19cm

S3

2D
66%
K 49
M Niedrig
HAllg

igital
LHUSEN



JPEG

69 /min

BF 43Hz
19cm

S3

2D
66%
K 49
M Niedrig
HAllg

igital
LHUSEN

NCC oder LCC RCC

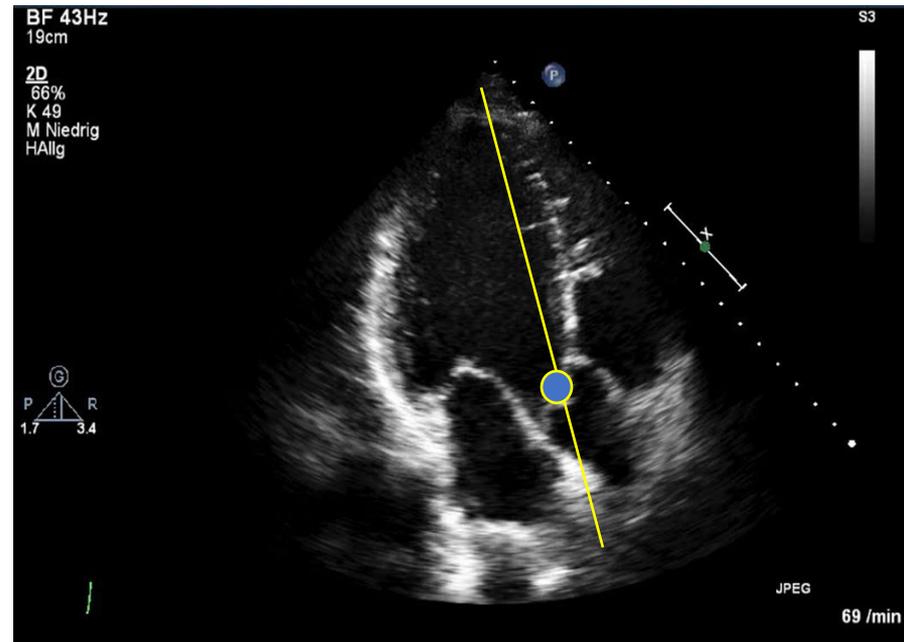
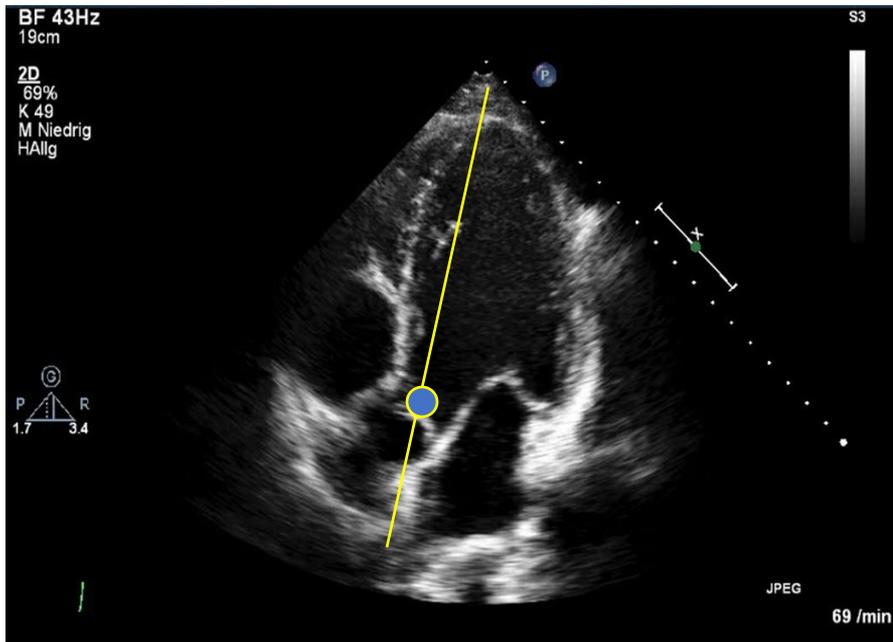


JPEG

69 /min

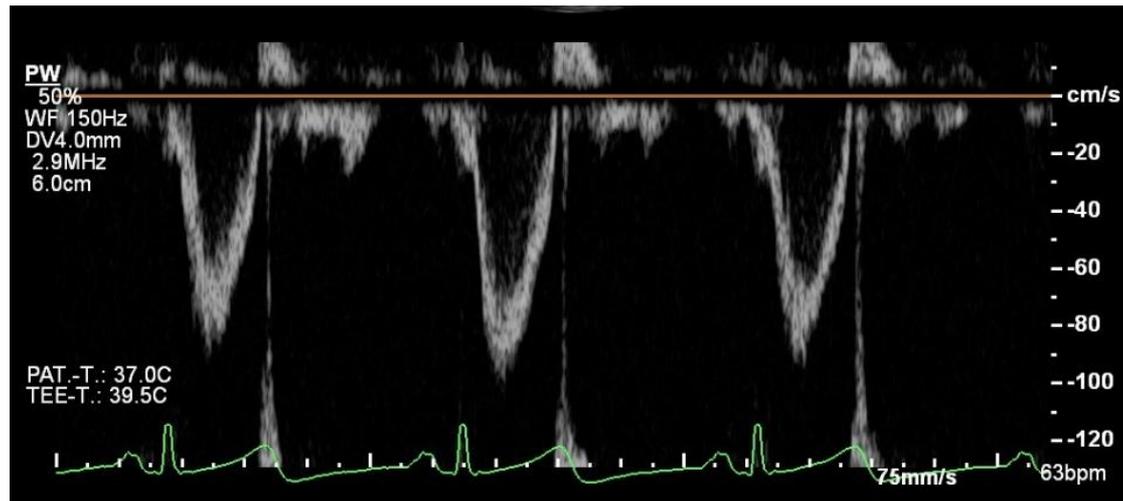
Doppler-Untersuchung der AV

- Cave Winkelfehler (>15%)!
- PW Doppler
- CW Doppler



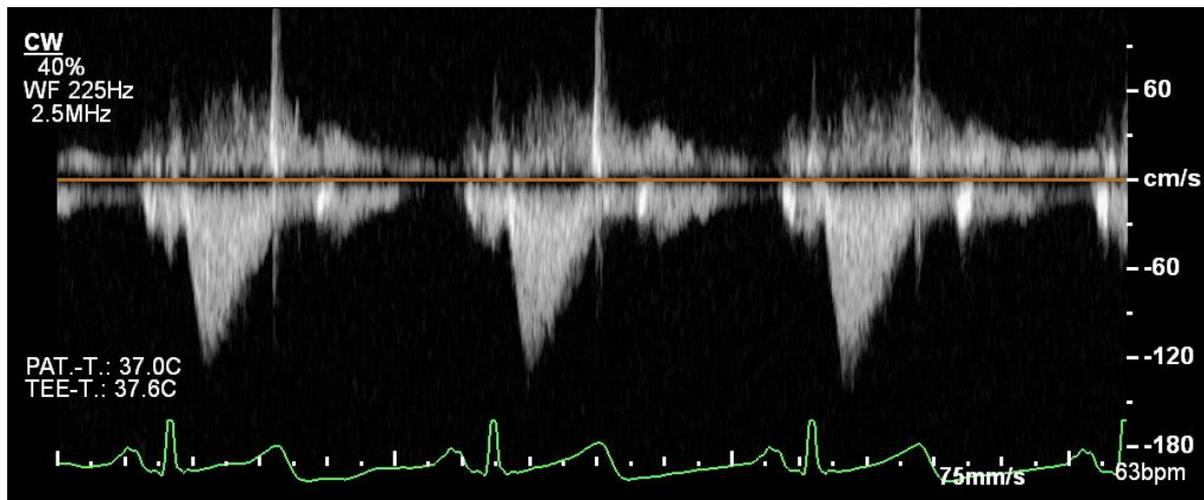
PW des LVOTs

- Fluss: Anterograd
- Herzzyklus: Systolisch, LV » Aorta
- Baseline: Unterhalb der Nulllinie
- Normale Doppler Geschwindigkeiten:
1.0-1.3 m/s
- Diagnostische Wertigkeit: AS und HZV

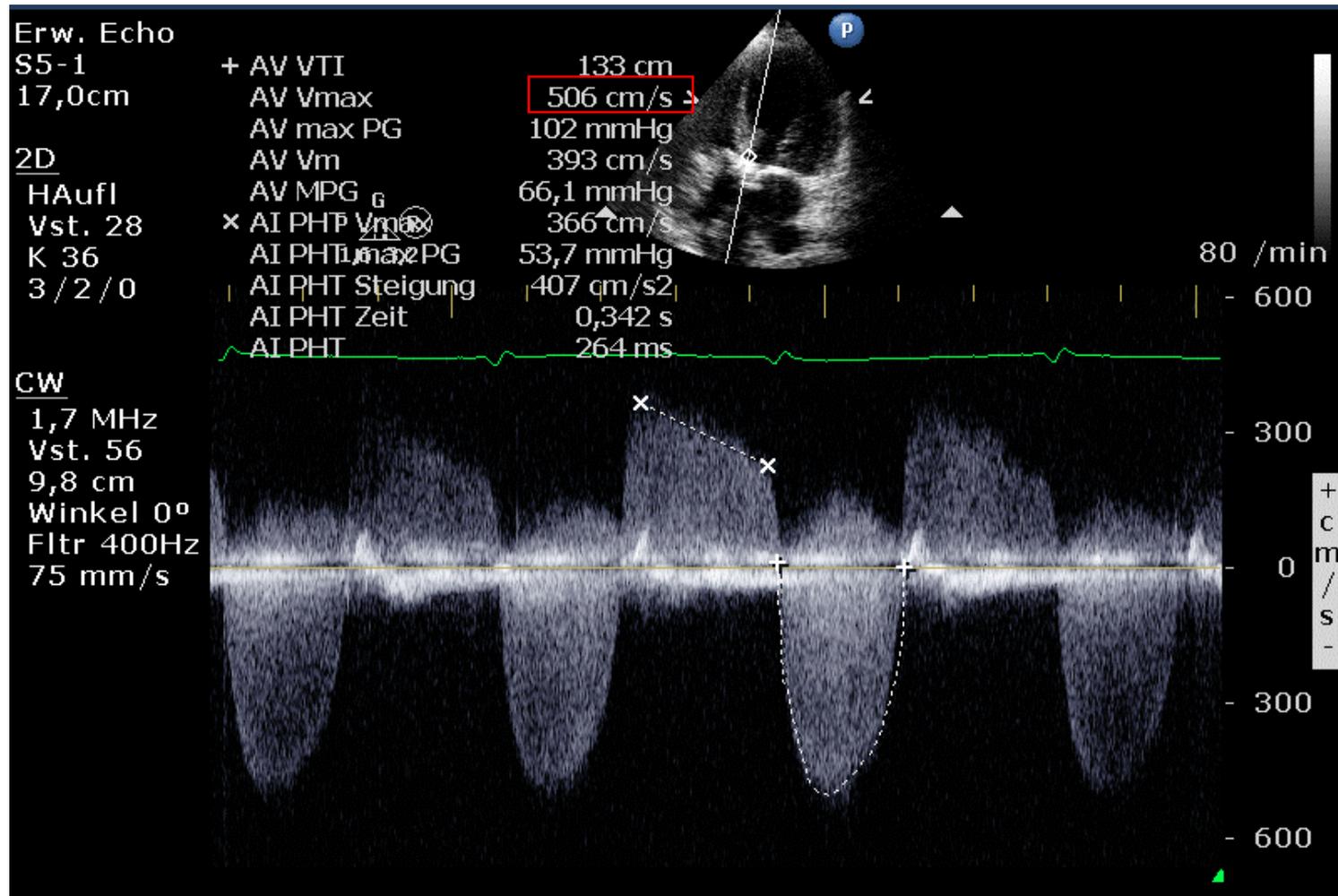


CW der Aortenklappe

- Fluss: Anterograd
- Pathologischer Fluss: Retrograd
- Herzzyklus: Systolisch, LV » Aorta
- Baseline: Unterhalb der Nulllinie
- Normale Doppler Geschwindigkeiten:
1.0-1.7 m/s (<2.0 m/s)
- Diagnostische Wertigkeit: AS und AI



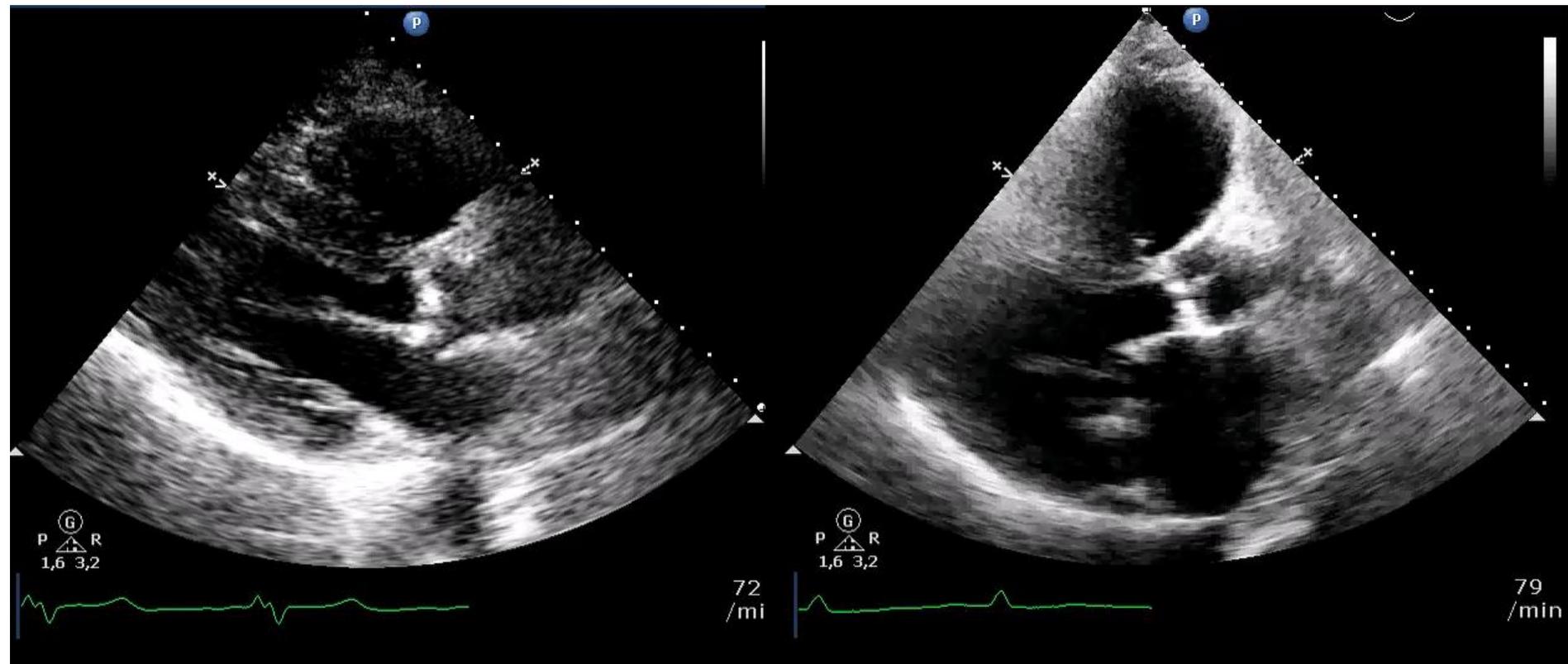
CW der Aortenklappe



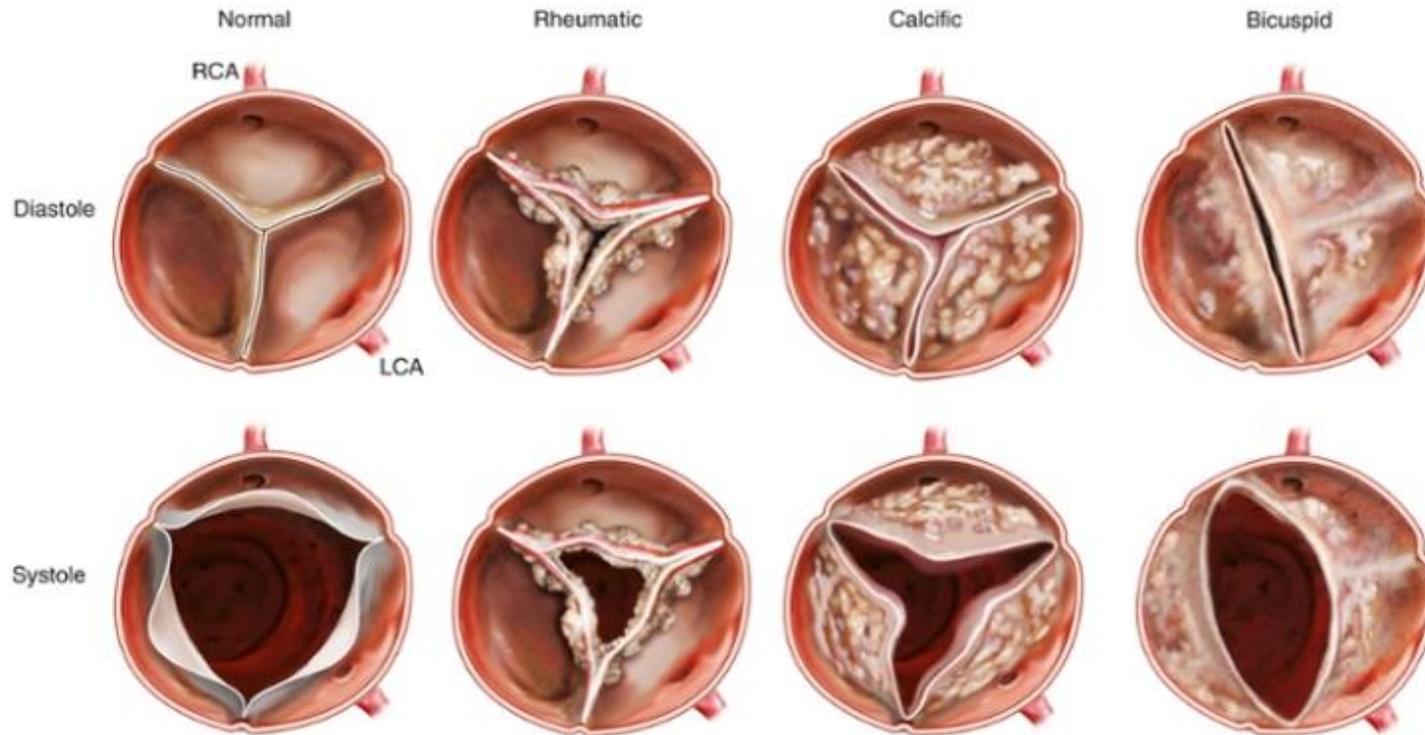
Aortenklappenstenose

- Ätiologie – degenerative Veränderungen, rheumatische Erkrankungen, bicuspide Klappen, etc.
- Pathophysiologie
- Anstieg der LV-Diameter endsystolisch
- Drücke im LV durch Afterload \uparrow
- Kompensatorische Hypertrophie

Morphologie der Aortenklappenstenose



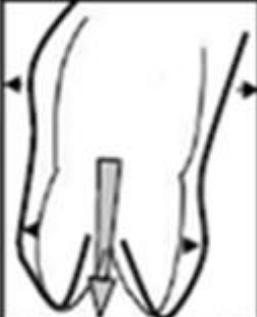
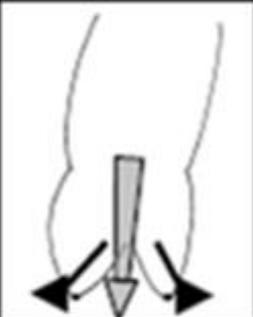
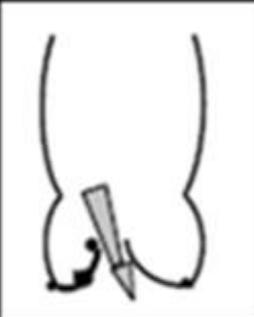
Morphologie der Aortenklappenstenose



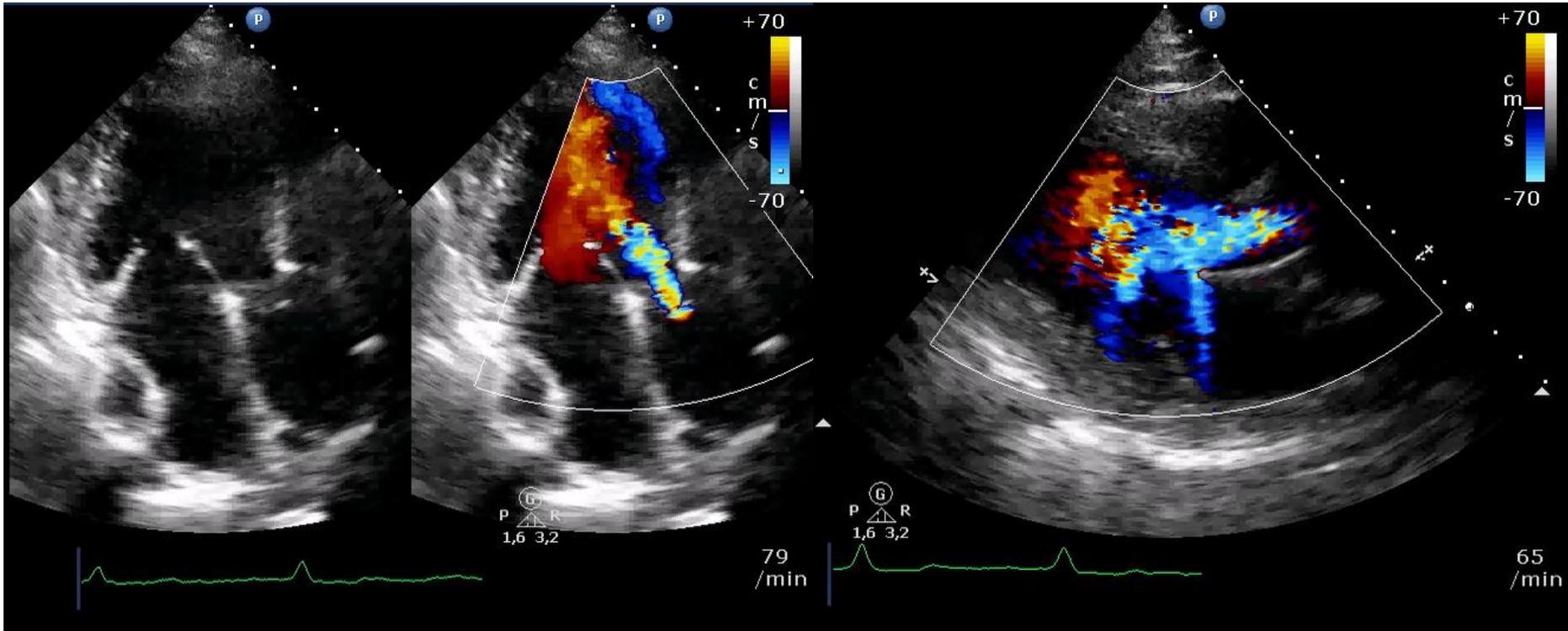
Aortenklappeninsuffizienz

- Ätiologie – degenerative, rheumatoide, kongenitale Erkrankungen, Marfan Syndrom
- Pathophysiologie
 - Volumenbelastung des LV
 - Exzentrische Hypertrophie
 - Erhöhte Füllungsdrücke
 - Reduziertes Afterload

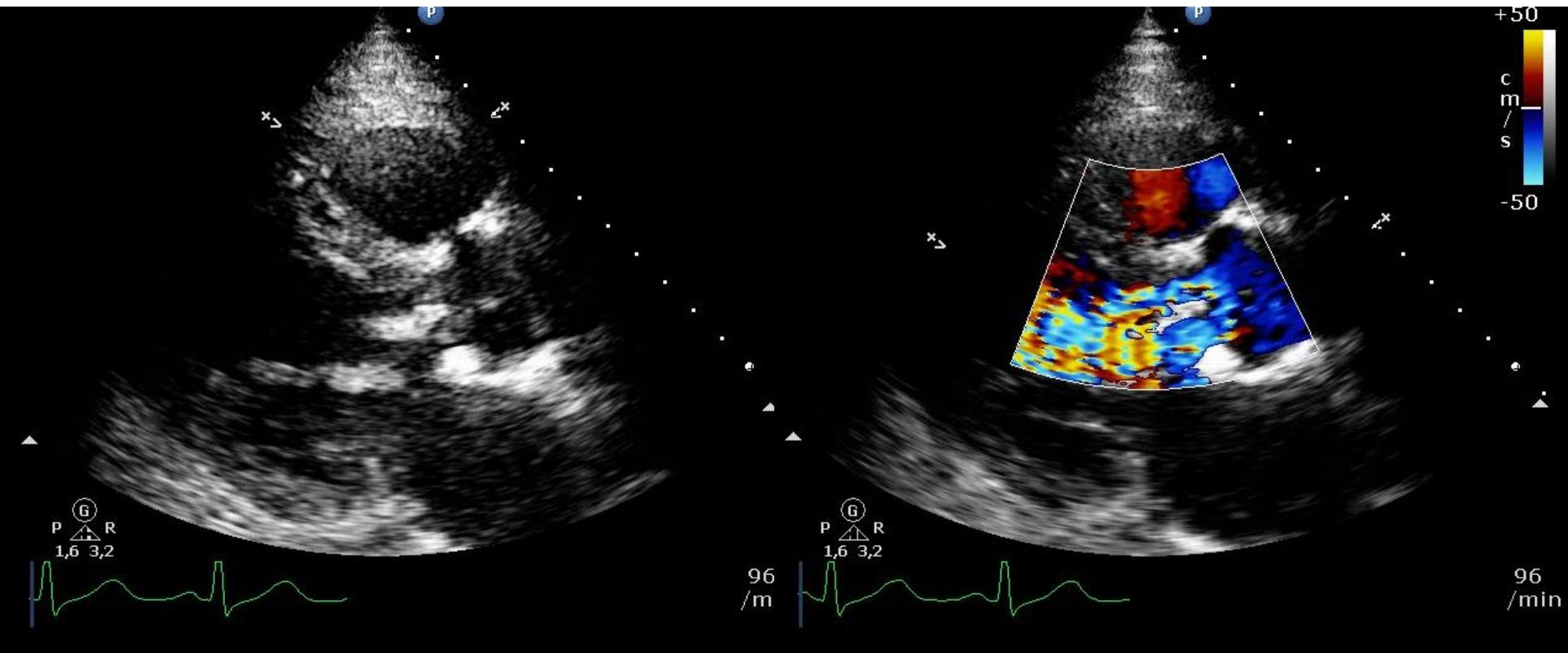
Morphologie der Aortenklappeninsuffizienz

AI Class	Type I Normal cusp motion with FAA dilatation or cusp perforation				Type II Cusp Prolapse	Type III Cusp Restriction
	1a	1b	1c	1d		
Mechanism						

Color Doppler der Aortenklappe



Color Doppler der Aortenklappe



Fragen?

Beurteilung der Aortenklappe