

DIU Cas Clinique 2

CIV

Philippe Acar
Toulouse

MARIE

- 4 ans
- 15 kg et 98 cm
- BSA 0,64 m²
- Asymptomatique
- SS 3/6 en rayon de roue

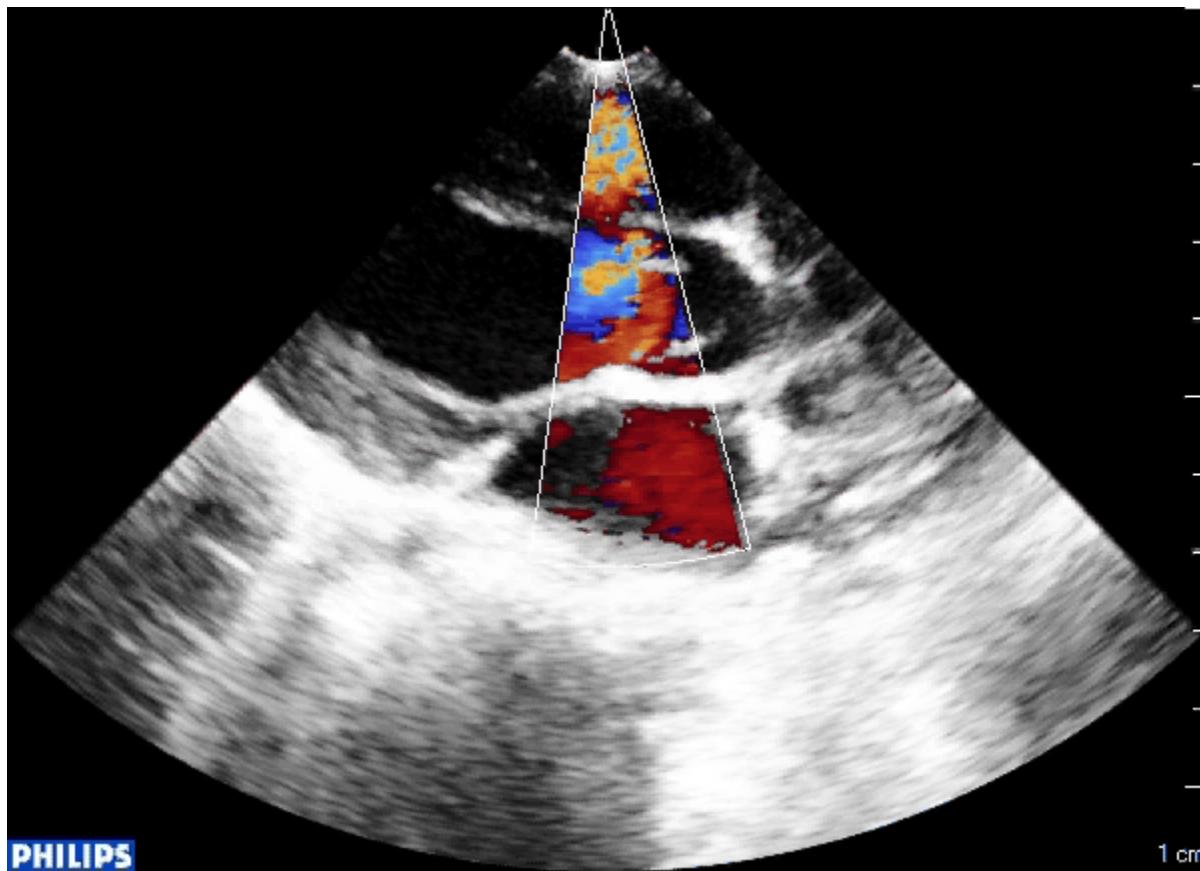
MARIE



PHILIPS

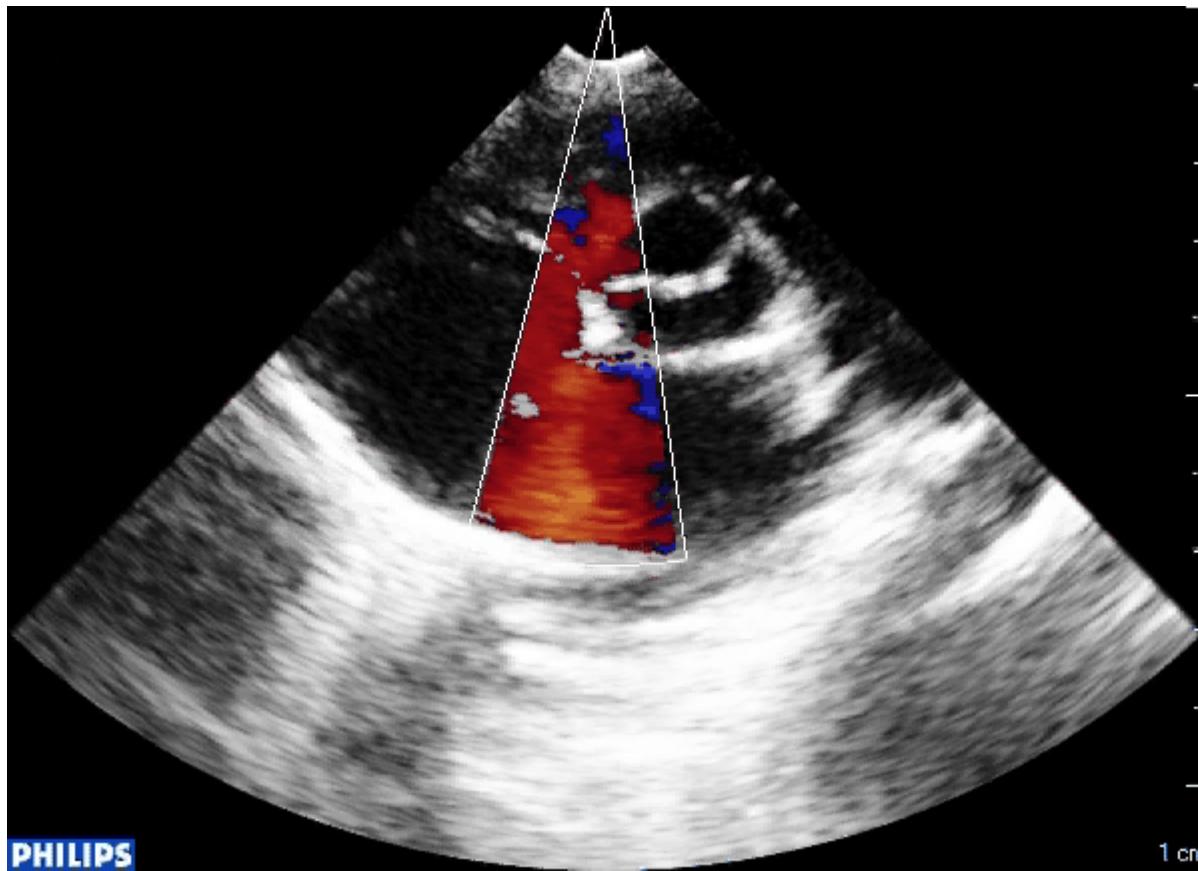
1 cm

MARIE



PHILIPS

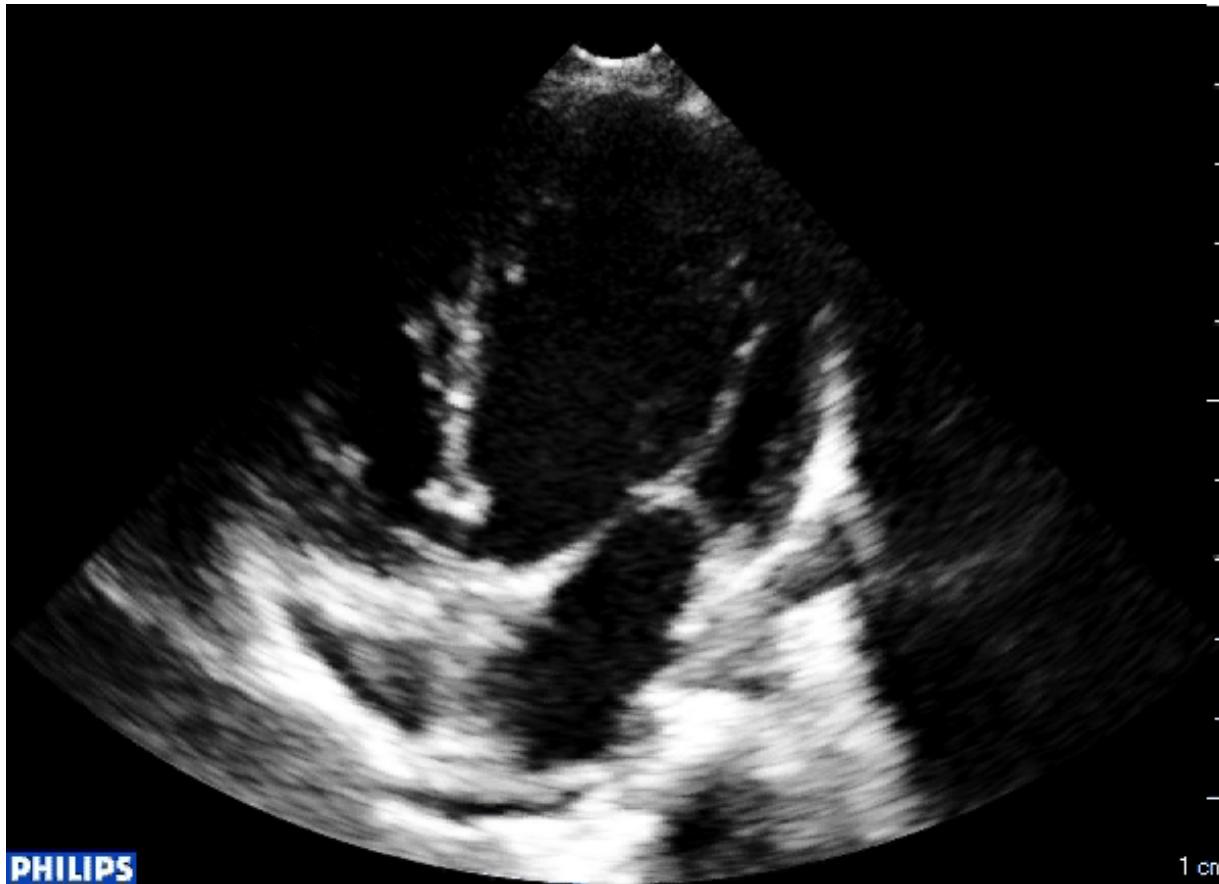
MARIE



PHILIPS

1 cm

MARIE

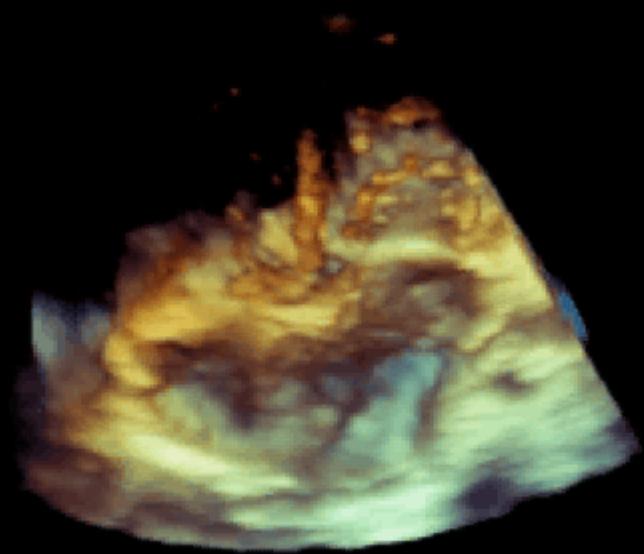


MARIE

2013/08/19 2:54:37 PM
HOPITAL DES ENFANTS

VR 21Hz
11cm

Live 3D
3D 29%
3D 40dB



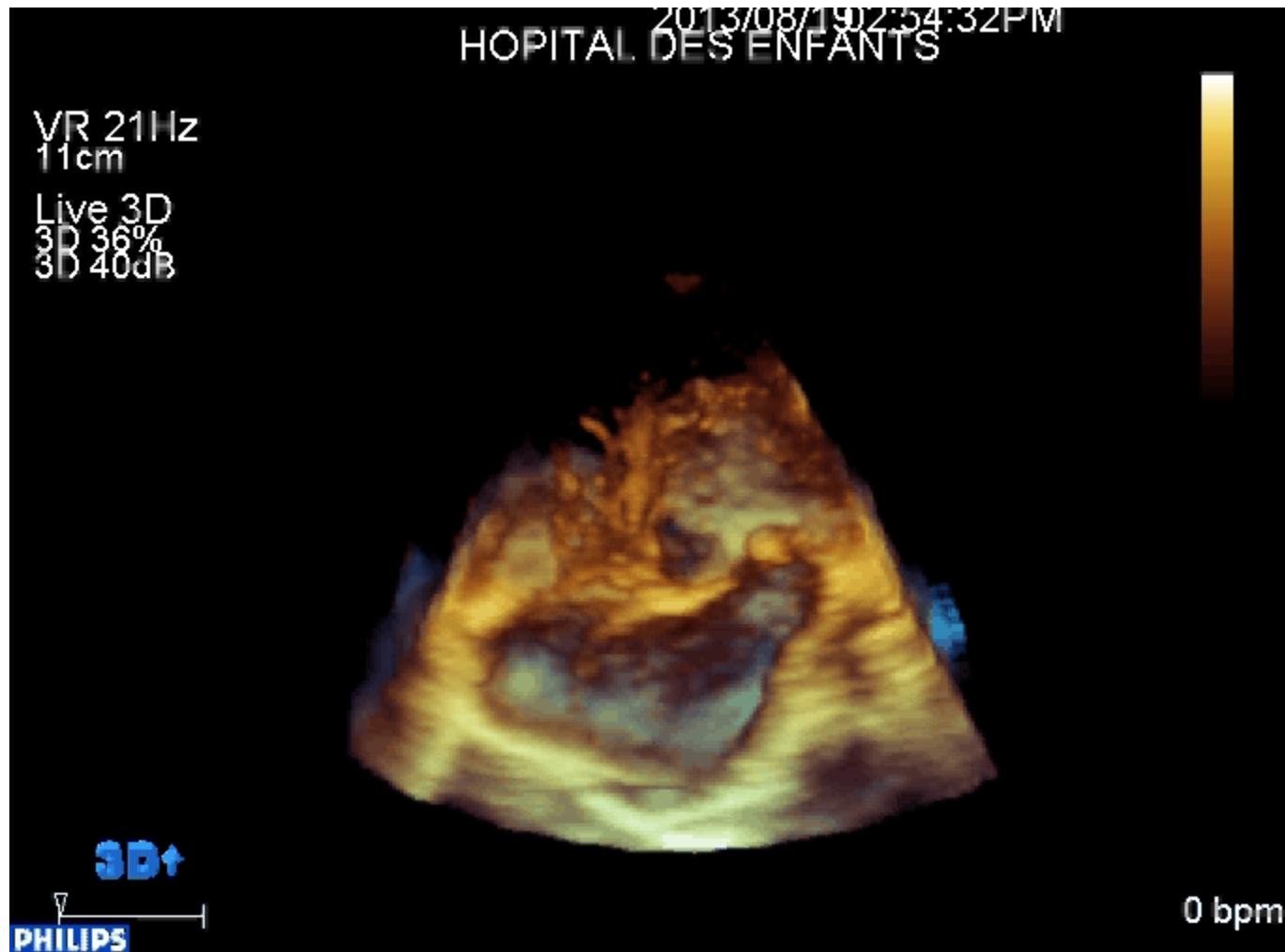
3D+



PHILIPS

0 bpm

MARIE



QUESTION 1

- 1- La CIV est pérимembraneuse
- 2- La valve aortique est bicuspidé
- 3- La membrane sous ao est circulaire
- 4- La membrane sous ao s'attache sur le septum

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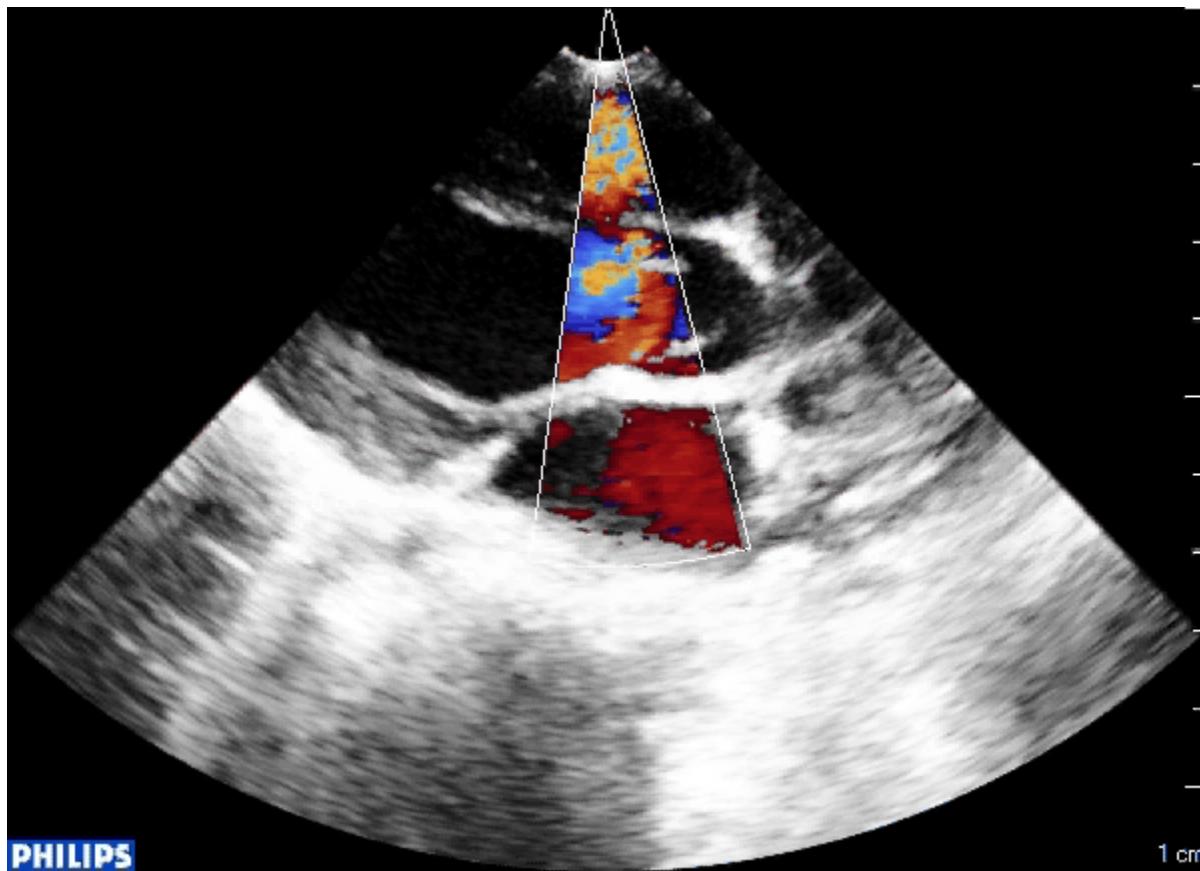
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PHILIPS

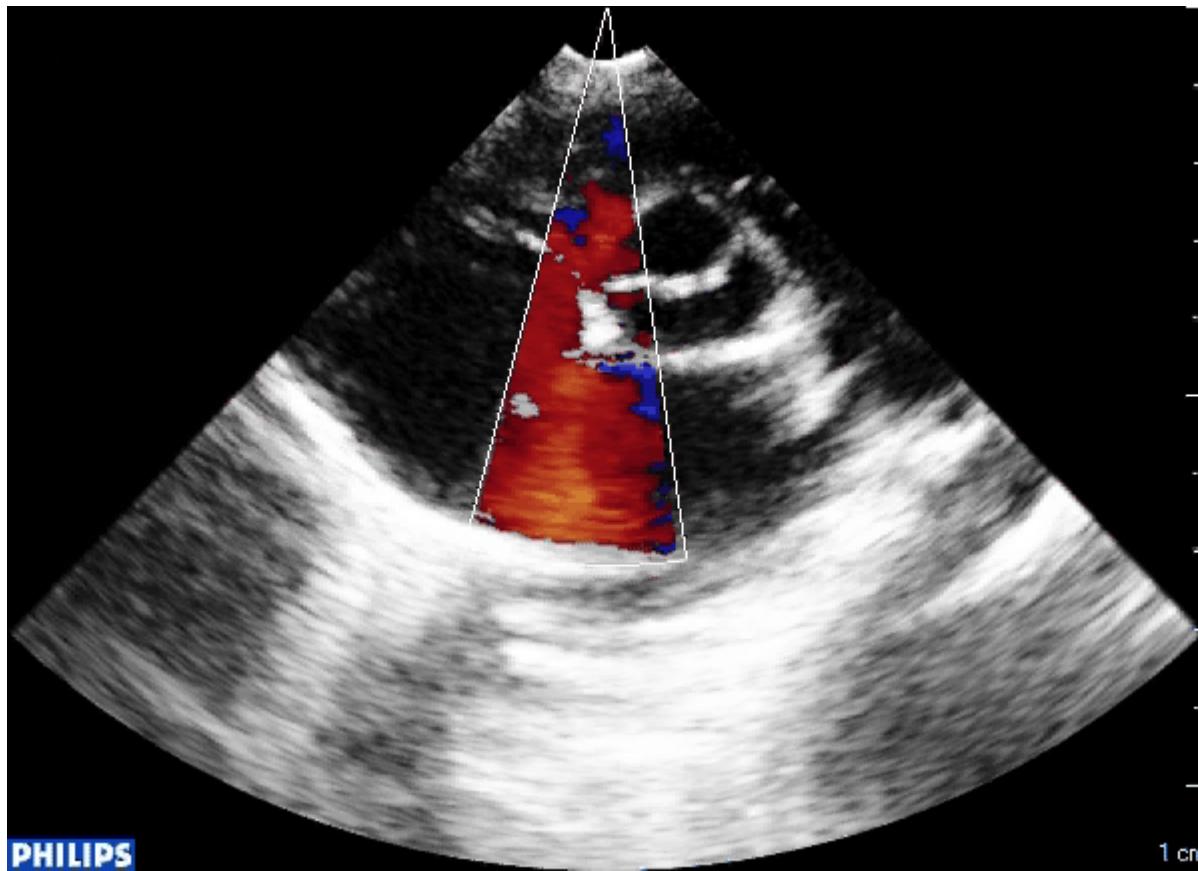
1 cm

MARIE



PHILIPS

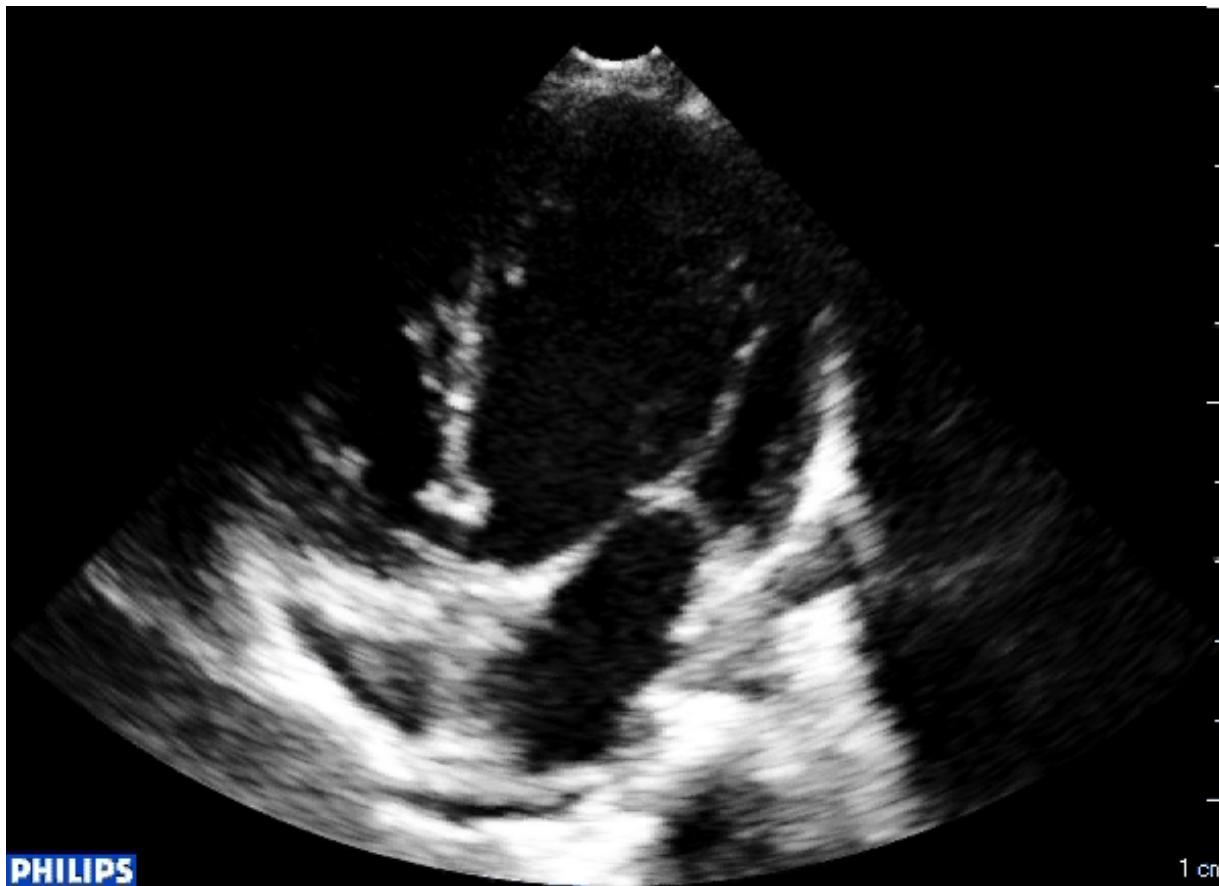
MARIE



PHILIPS

1 cm

MARIE

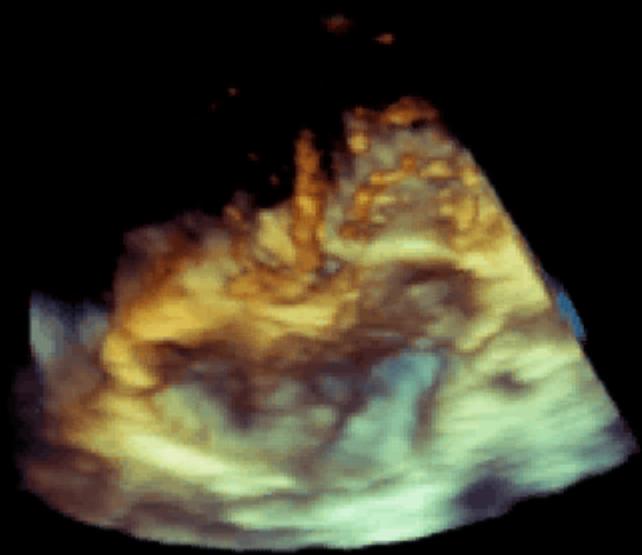


MARIE

2013/08/19 2:54:37 PM
HOPITAL DES ENFANTS

VR 21Hz
11cm

Live 3D
3D 29%
3D 40dB



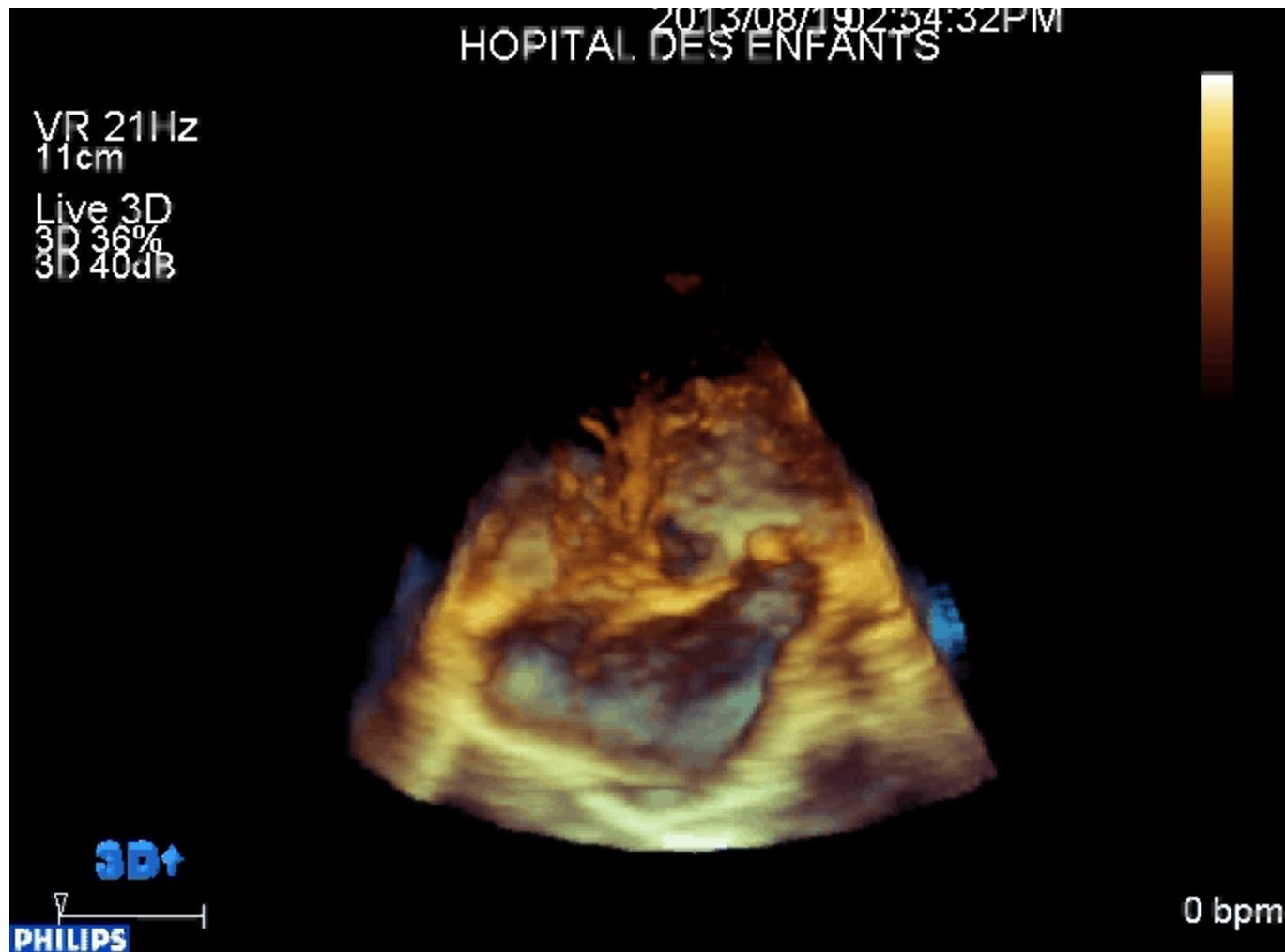
3D+



PHILIPS

0 bpm

MARIE



MARIE

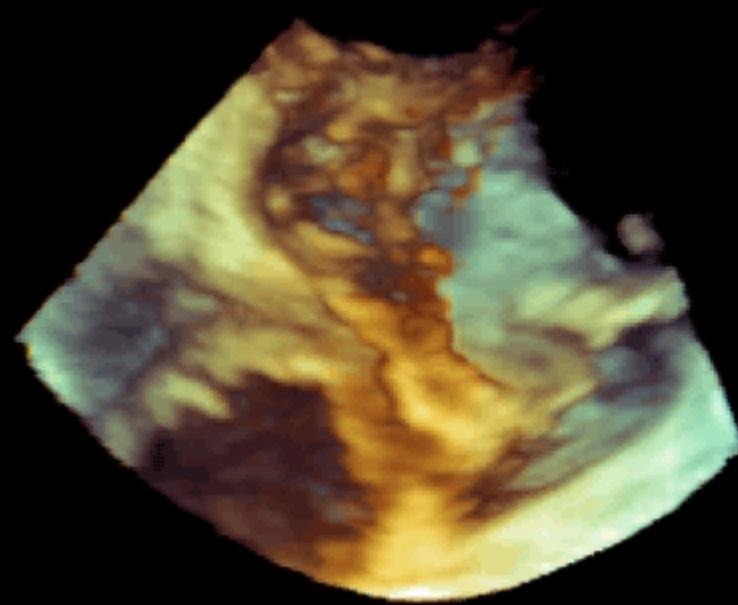


MARIE

2013/08/19 2:56:06PM
HOPITAL DES ENFANTS

VR 27Hz
5cm

Live 3D
3D 44%
3D 40dB



PHILIPS

0 bpm

MARIE

The image shows a smartphone displaying a mobile application for pediatric growth monitoring. The app interface includes a header bar with signal strength, time (15:34), and battery status. Below the header, the title "Body Size" is centered, with a "Z-Scores" button on the left and a pencil icon on the right.

The main content area displays the child's basic information in a teal header box:

	15kg	100cm
	Male	4 Years

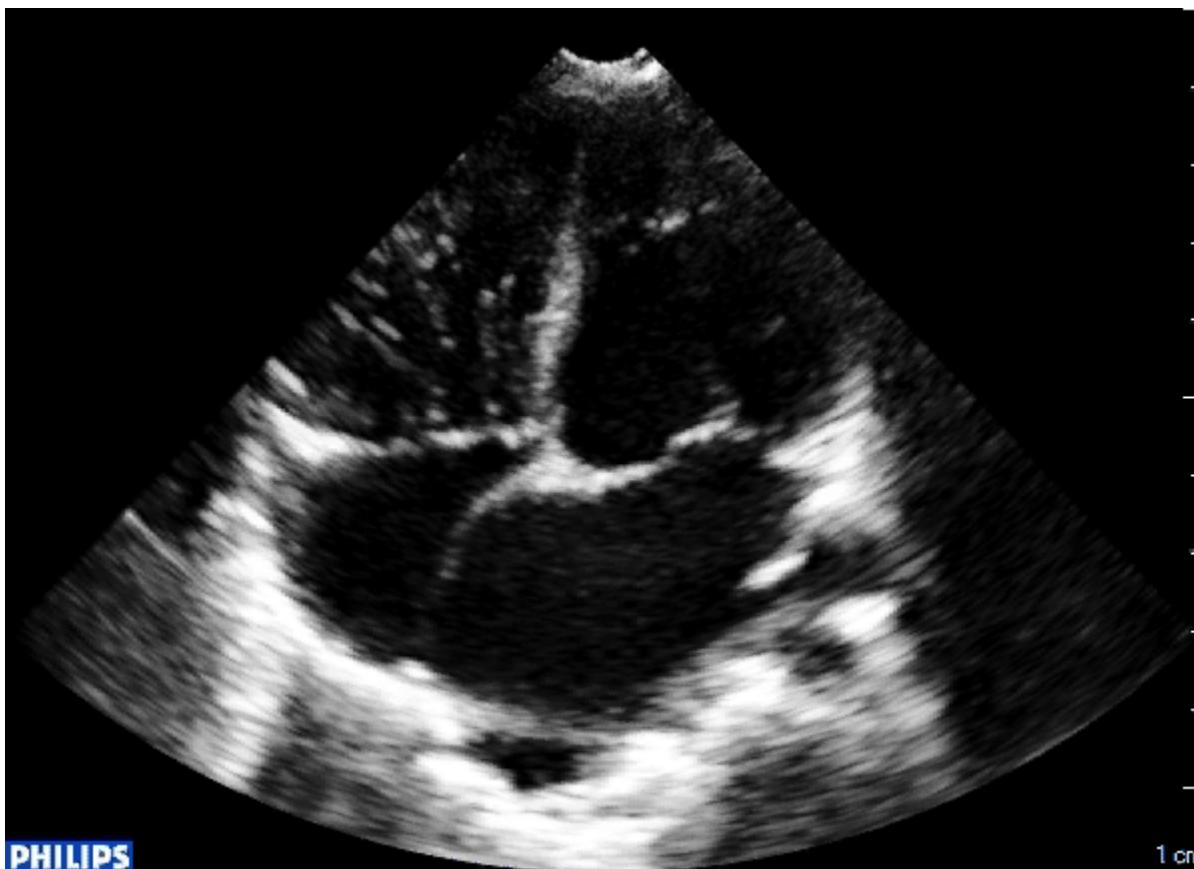
Below this, a WHO Dubois BSA calculation is shown:

	WHO	
Dubois		
BSA: 0,64 m ²		

The application then presents three data series for weight, height, and head circumference, each with expected values, centiles, Z-scores, and a unit indicator (kg or cm). The first two rows are fully visible, while the third row is partially cut off at the bottom.

Weight (kg)	15
Expected	16,35
Centile: 25,14 %	Z = -0,68
Height (cm)	100
Expected	103,33
Centile: 21,48 %	Z = -0,79
Head Circumference	cm
Expected	50,21

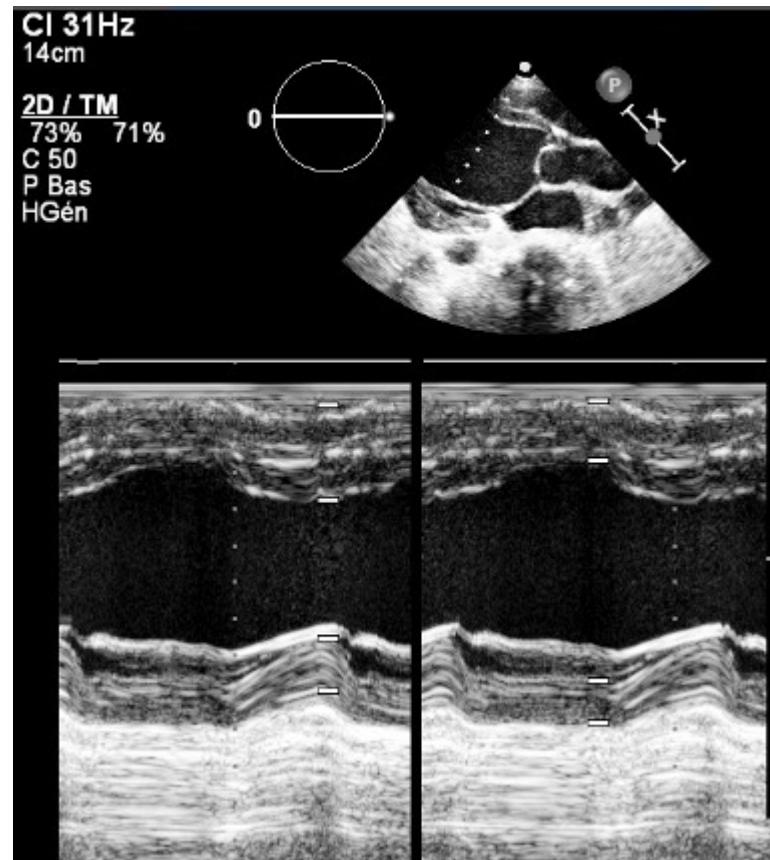
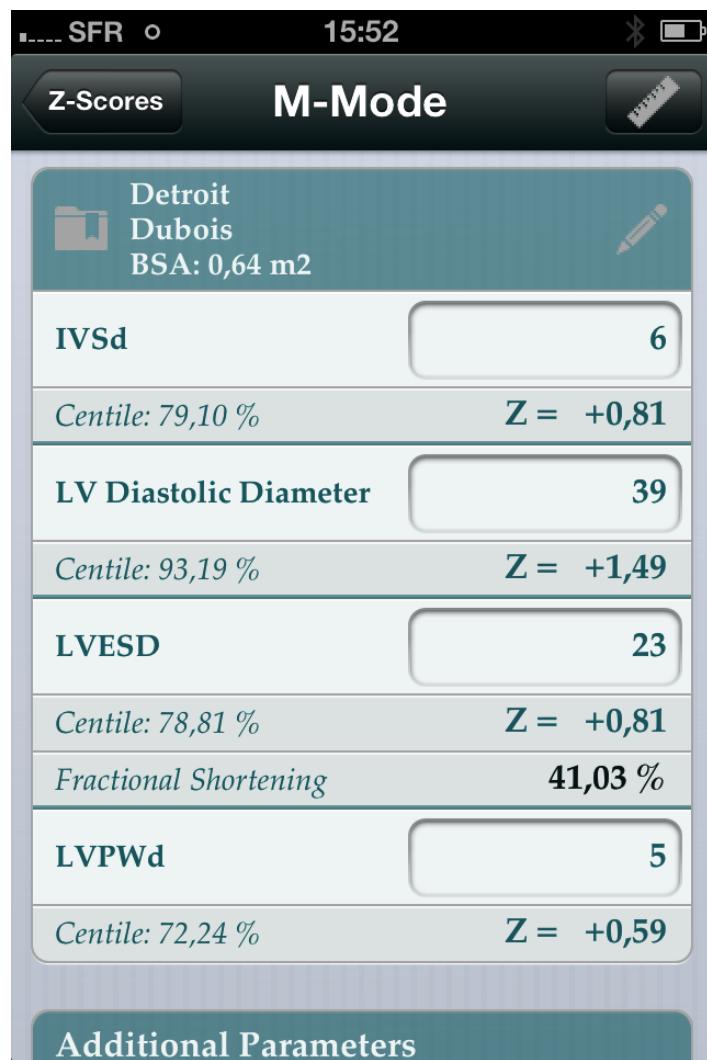
MARIE



PHILIPS

1 cm

MARIE



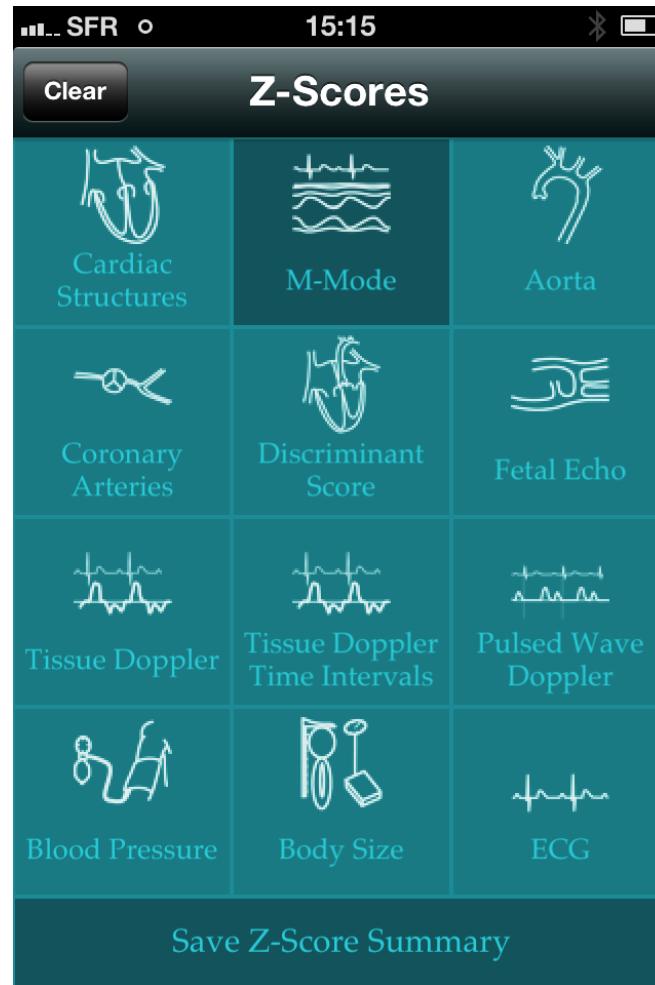
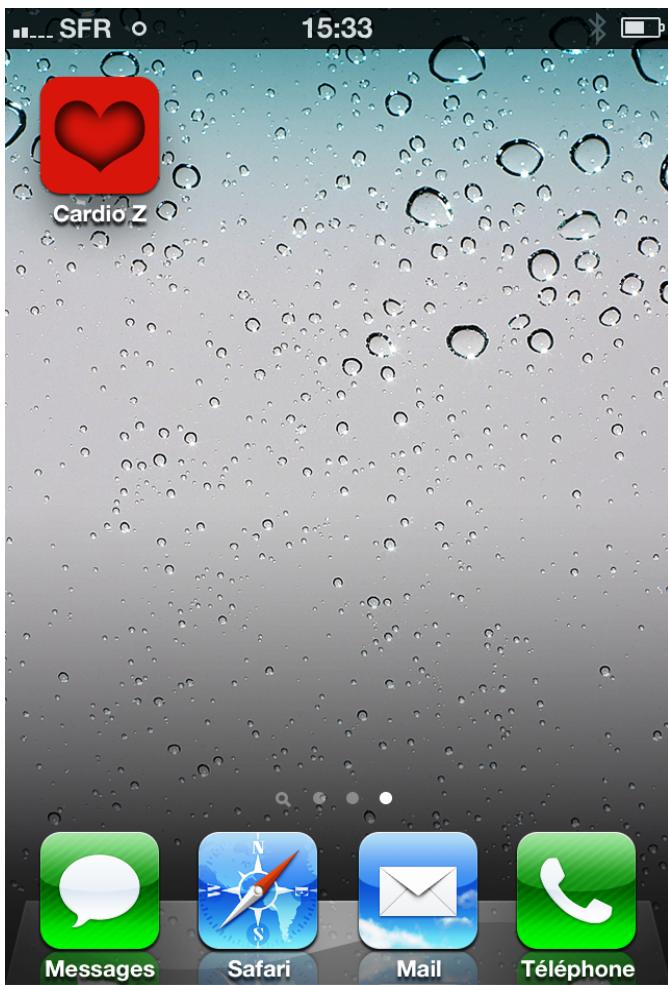
QUESTION 2

- 1- Le VG est significativement dilaté
- 2- L'indication chirurgicale est formelle
- 3- L'indication chirurgicale est discutable
- 4- Je suis bien embarrassé(e)

QUESTION 2

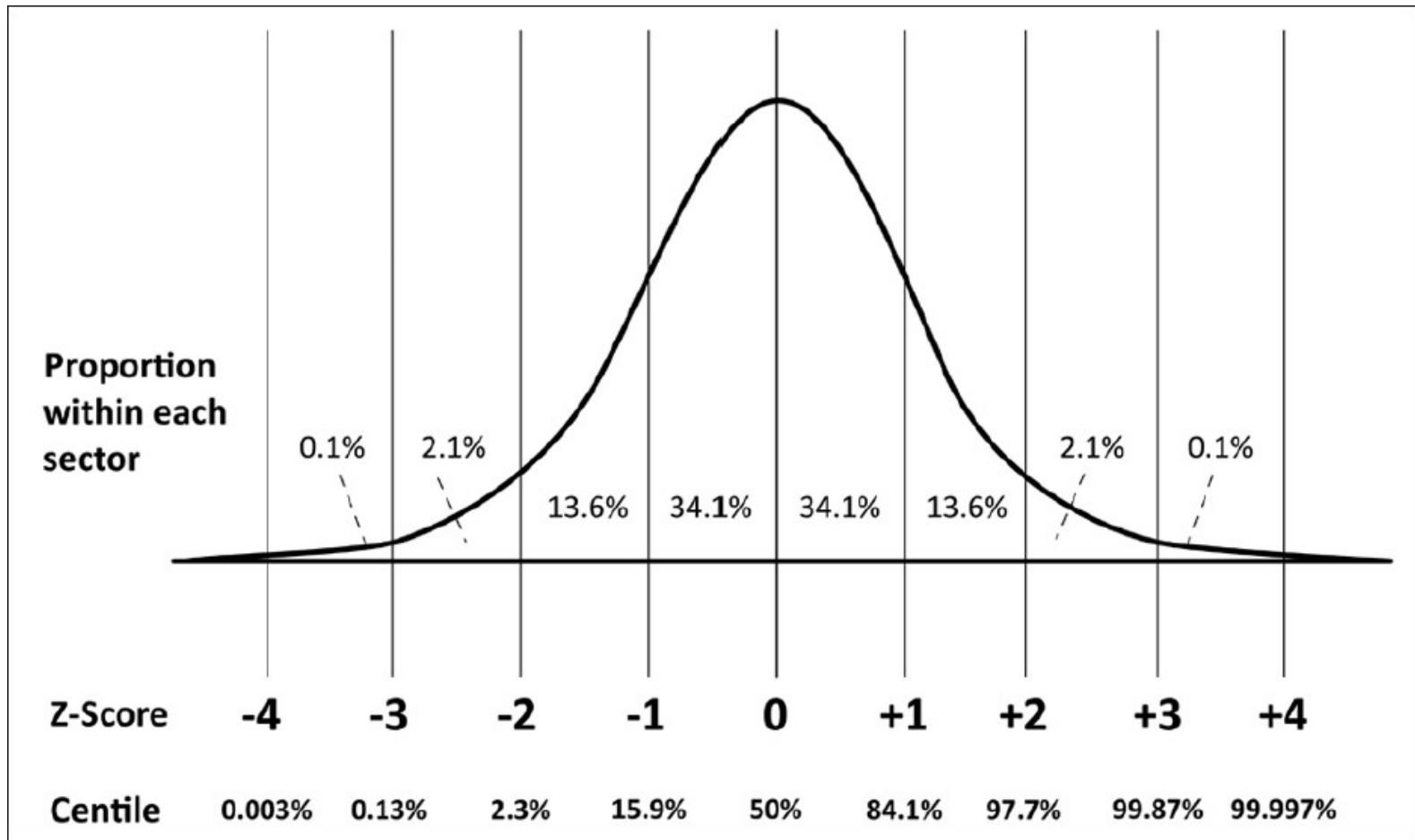
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Z SCORE



Chub et al.
Ann Pediatr Card
2012;5:179-84

Z SCORE



$$Z = (x - \mu) / \sigma$$

μ = moyenne de la population

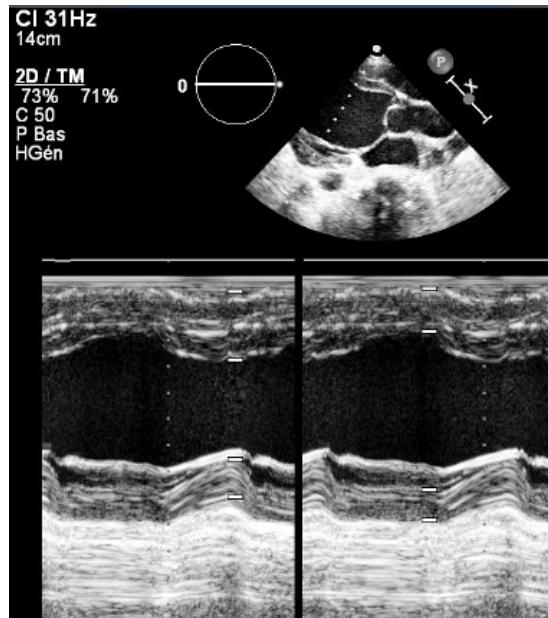
σ = ecart type ($\sqrt{\text{moyenne des écarts à la moyenne}}^2$)

Z SCORE

Author	Year	Number of subjects	Parameters measured
Pettersen et al "Detroit" ^[12]	2008	782	Heart valves, aorta, pulmonary arteries, m-mode
Zilberman et al "Cincinnati" ^[13]	2005	748	Heart valves
Daubeney et al "Wessex" ^[14]	1999	125	Heart valves and structures, aorta, pulmonary arteries
Kampmann et al ^[15]	2000	2036	M-mode measurements
Warren et al "Halifax" ^[16]	2006	317	Aorta
Gautier et al "Paris" ^[17]	2010	353	Aorta
Dallaire and Dahdah "Montreal" ^[18]	2011	1033	Coronary arteries
McCindle et al "Boston" ^[19]	2007	221	Coronary arteries
Olivieri et al "Washington" ^[20]	2009	432	Coronary arteries
Schneider et al ^[21]	2005	130	Fetal heart valves and structures
Pasquini et al ^[22]	2007	221	Fetal aorta and duct
Cui et al ^[11]	2008	593	Time intervals from tissue doppler
Eidem et al ^[10]	2004	325	Tissue doppler velocities, time intervals, pulsed wave doppler
Koestenberger et al ^[23]	2009	640	TAPSE
Fourth report ^[24]	2004	Meta-analysis	Blood pressures (Clinic setting)

TAPSE: Tricuspid annular plane systolic excursion

Z SCORE



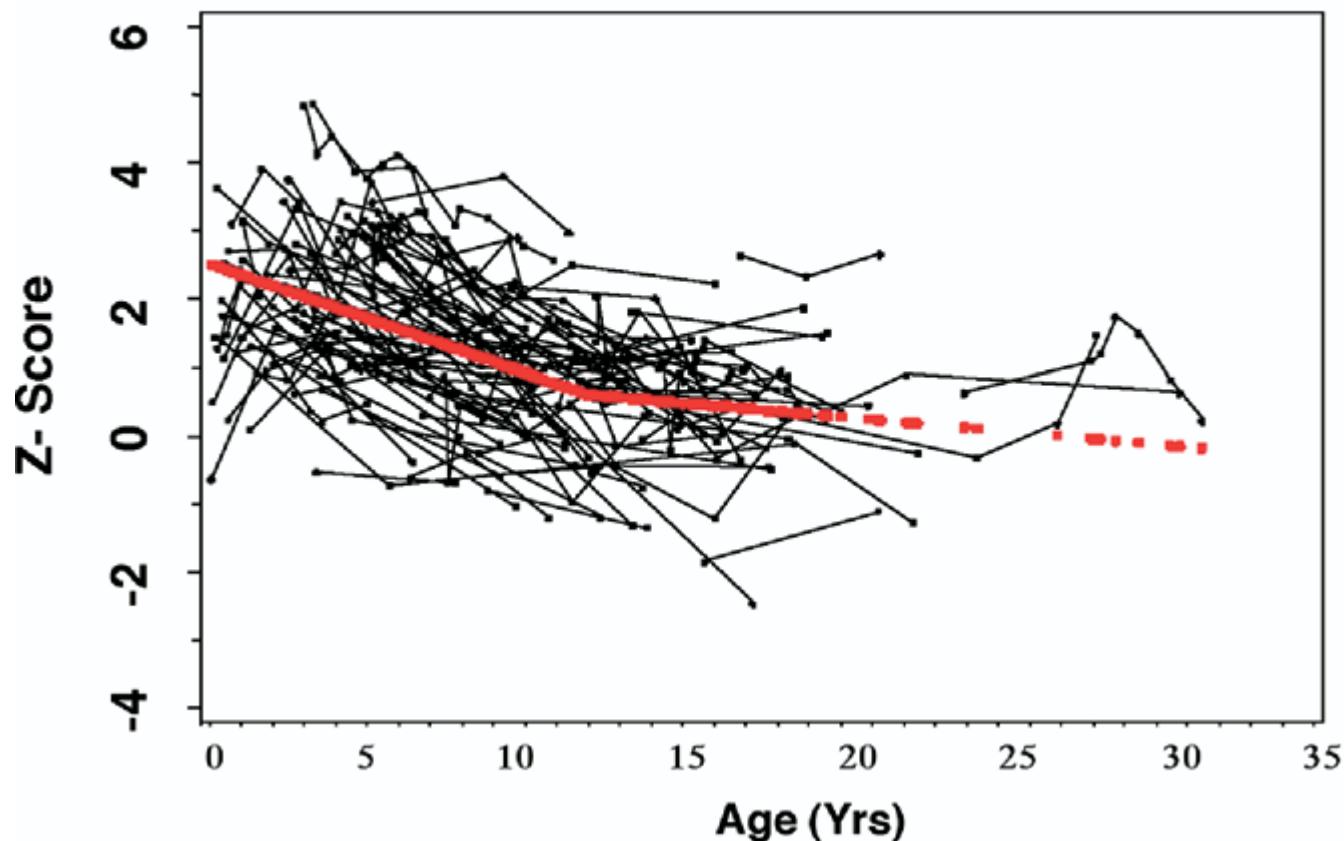
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CIV EVOLUTION

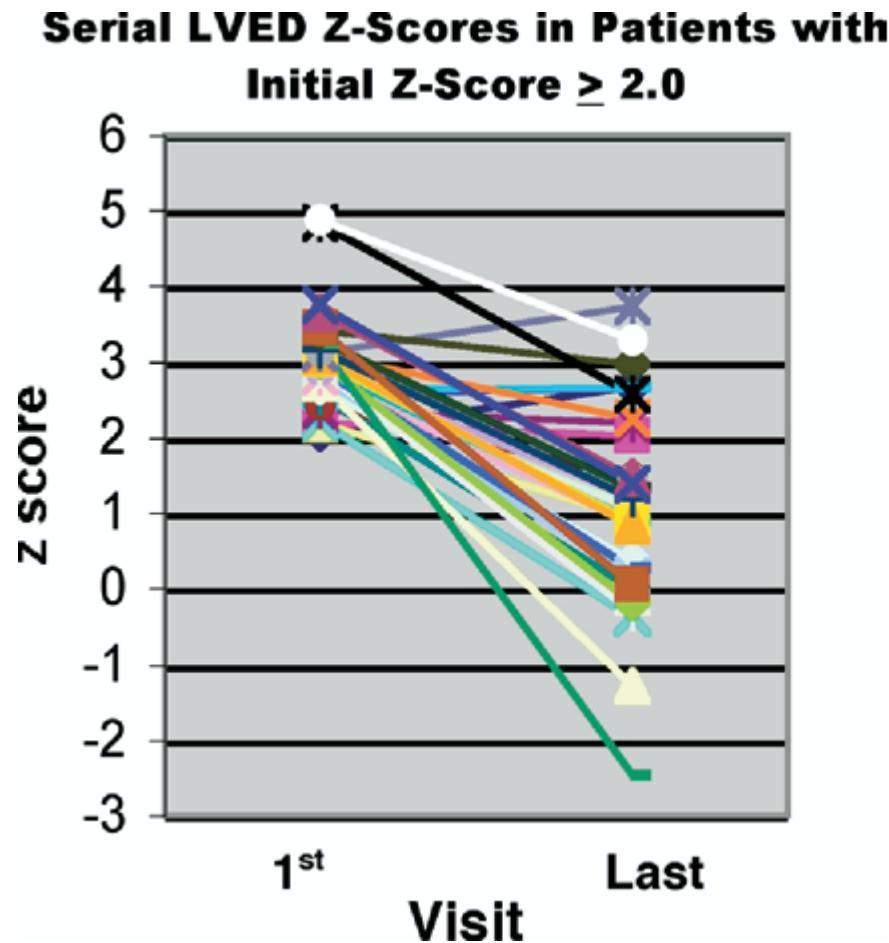
- 188 pts : 17-72 ans (moyenne 29.2)
- Small VSD : 114 PM, 30 Musc, 14 DC, 7 Inf
- Lésions associées : 65 pts (SAO, SP, Coarct)
- 10% fermeture spontanée
- **11% endocardite** (PM ou Inf) : valve ao ou tric
- 20% IAO (25% prolapsus, 75% BAO ou Mb)
- 10 % chirurgie (endoc ou IAO)
- 6 % TDR (75% lésions associées)

CIV Restrictive Asymptomatique

**Serial Follow-Up of LVED Z-Scores in 70 Patients with
Restrictive VSD and Initial LVED Z-Scores >1.0**



CIV Restrictive Asymptomatique



Kleinman et al. *J Pediatr* 2007;150:583-6

CIV Restrictive Asymptomatique

« We believed that evidence-based management dictates that asymptomatic patients with pressure-restrictive VSD be followed clinically, without being subjected to early or late risks, discomfort, and psychological and financial costs of cardiac surgery or therapeutic catheterization »

Kleinman et al. *J Pediatr* 2007;150:583-6