

Intérêt de l'échographie pulmonaire et cardiaque combinée dans le monitoring de l'expansion volumique devant une acidose lactique compliquée d'une IRA et d'instabilité hémodynamique

Fouzia DAHBI
Réanimation Médicale HCA

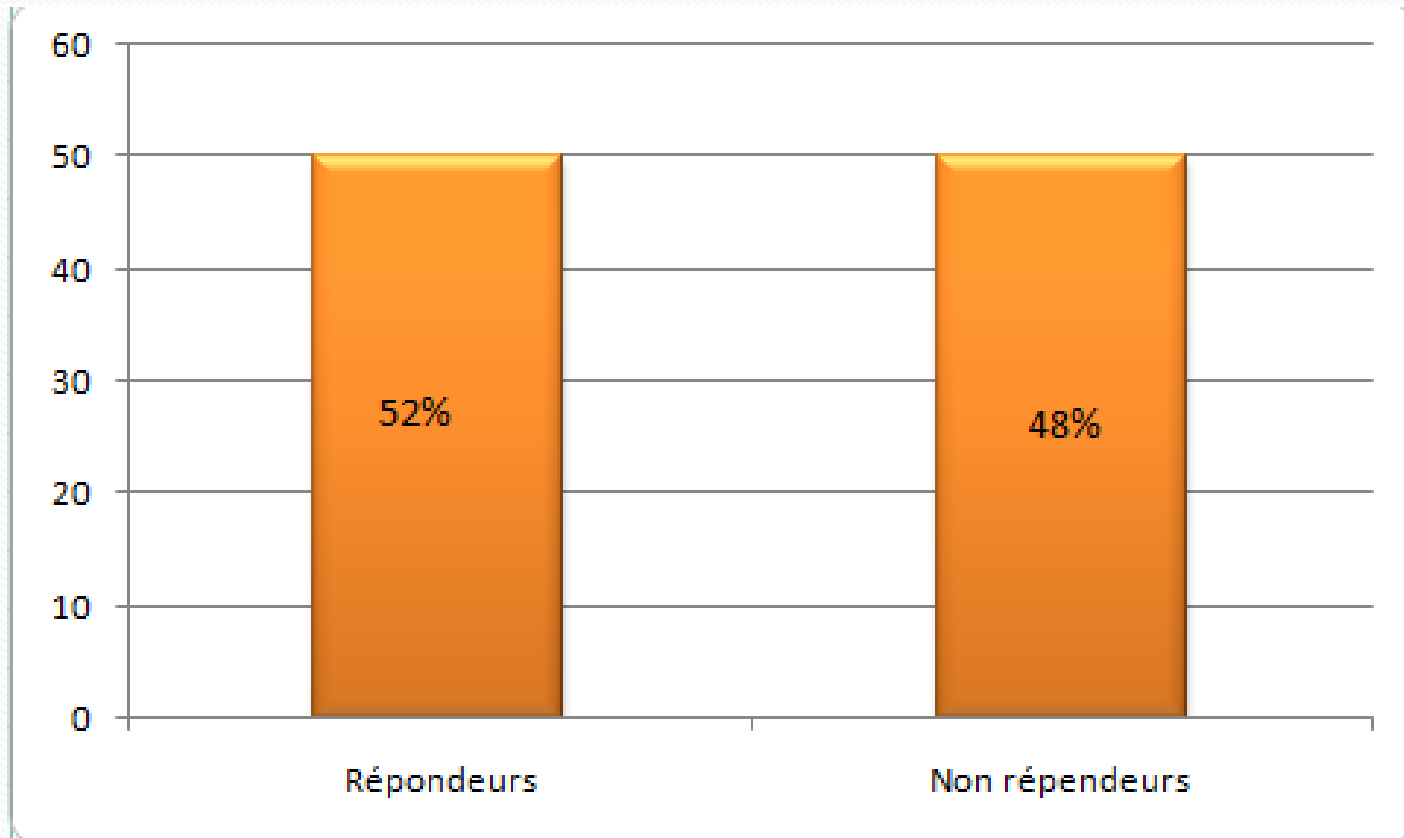
22^{ème} SAARSIU Congrès
15-16-17-Décembre

Predicting Fluid Responsiveness in ICU Patients

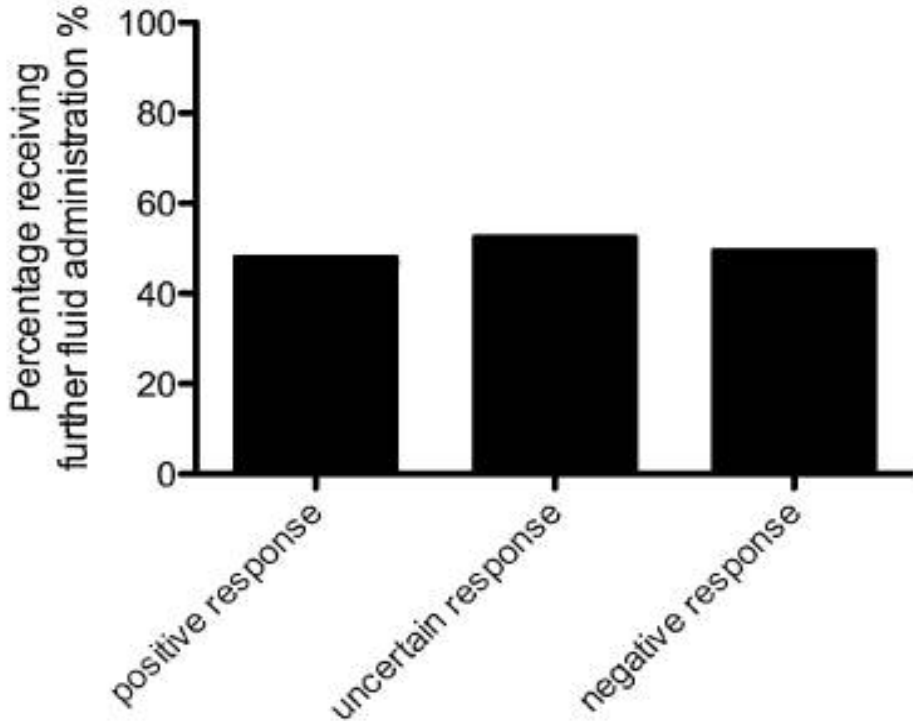
Frédéric Michard MD, PhD / Jean-Louis Teboul MD, PhD

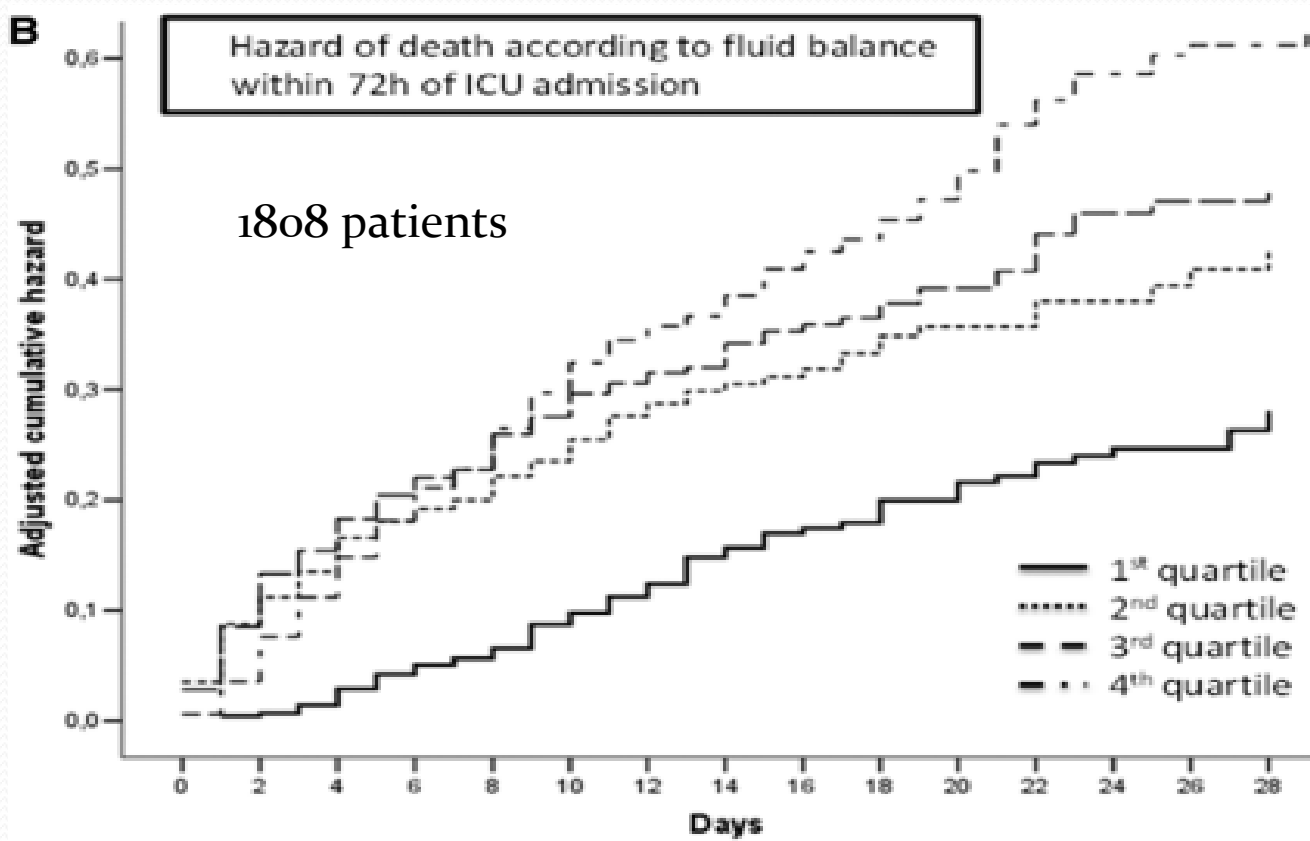
CHEST / 121/6/ JUNE, 2002

406 patients en insuffisance circulatoire aigue



Fluid administration post fluid challenge





+800ml
 +300ml
 Balance=0
 < 0

Sakr et al Critical Care Med 2017

Laurent Muller GE

Tous les ingrédients

Metformine
Amarel

72 ans

Cardiopathie
ischémique

Diurétique

Acidose
Lactique

Quadri
pontage

Diabétique

Vasoφ
BB

IRA

Fibrose
pulmonaire

DHA

Sepsis

Le patient est sous 2mg/H de noradrénaline

PH=7.14

Lactates =12.5

HCO₃⁻ = 8.4mmol/l

Pco₂= 21.5mmol/l

PO₂= 84.4

Urée=43.42mmol/l créatinine=650mmol/l clairance=7.57ml/min

CRP= 96

GB=9540elts/mm³

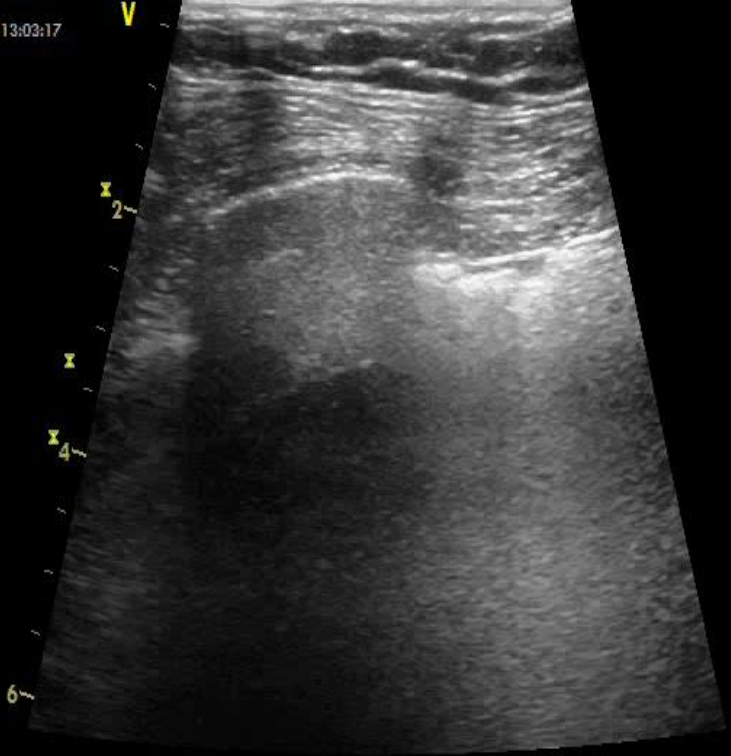
Evolution de la gazométrie les 3 premiers jours

Paramètres	PH	Lactates	HCO ₃ ⁻	PCO ₂	PO ₂
J1	7.14	12.5	8.4	21.6	84.4
POST DIALYSE	7.17	11.5	10.1	22.6	102
J2 matin	7.17	11.4	11	23.8	122
J2 soir	7.18	11.9	11.5	22.1	79.2
J3	7.18	10.5	12	23.1	66

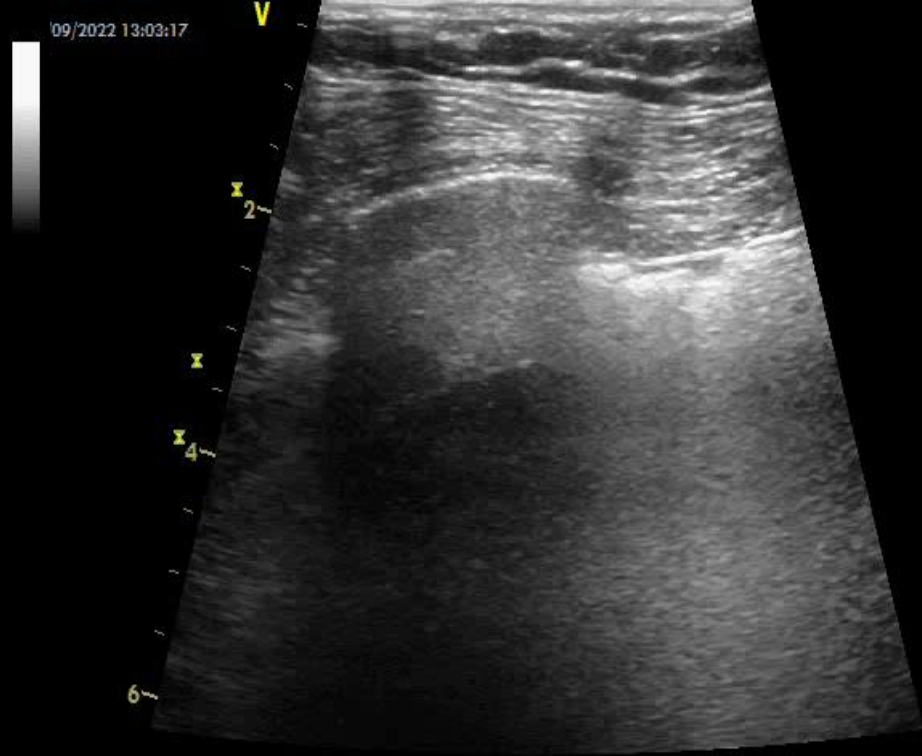


Première phase : La surcharge

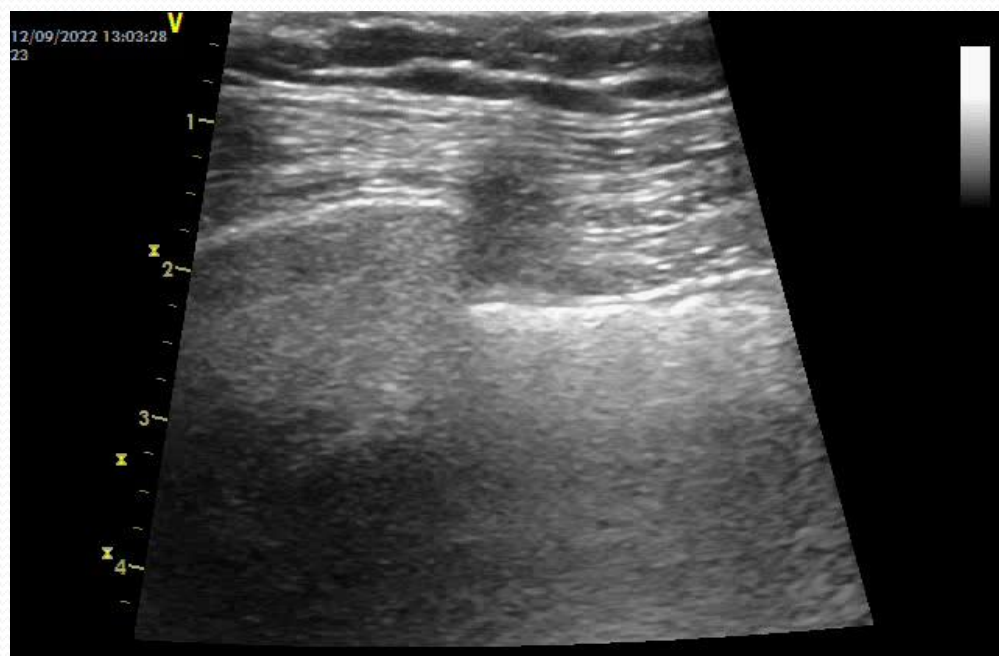
12/09/2022 13:03:17
22



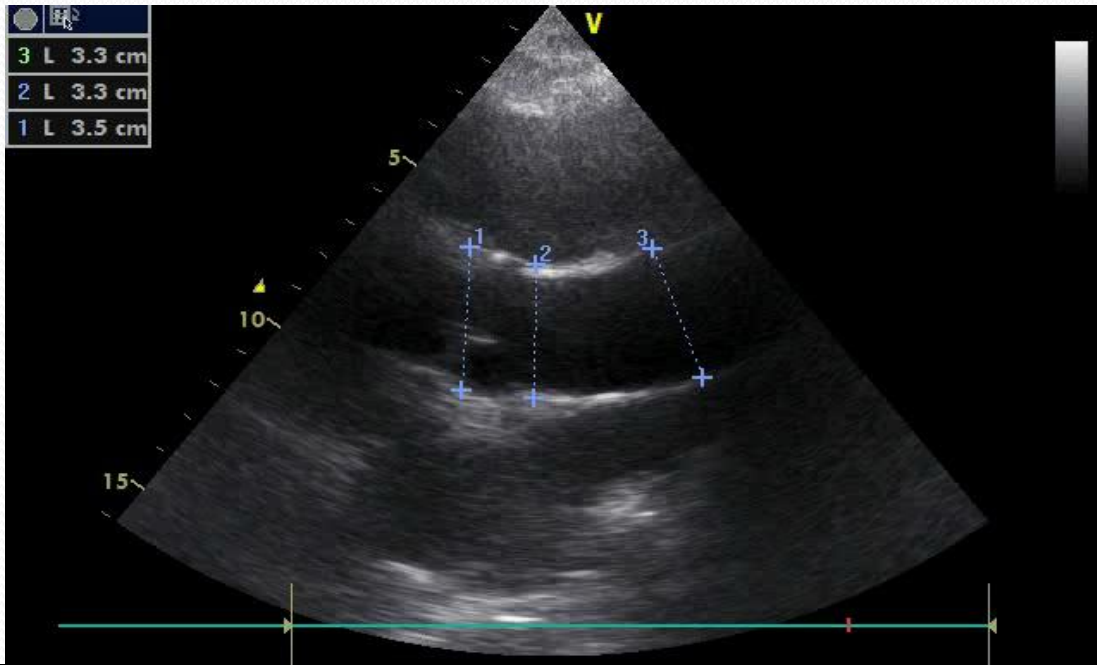
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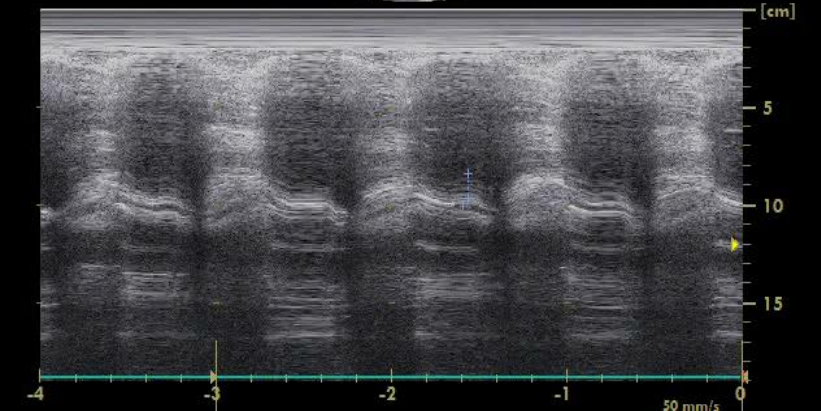
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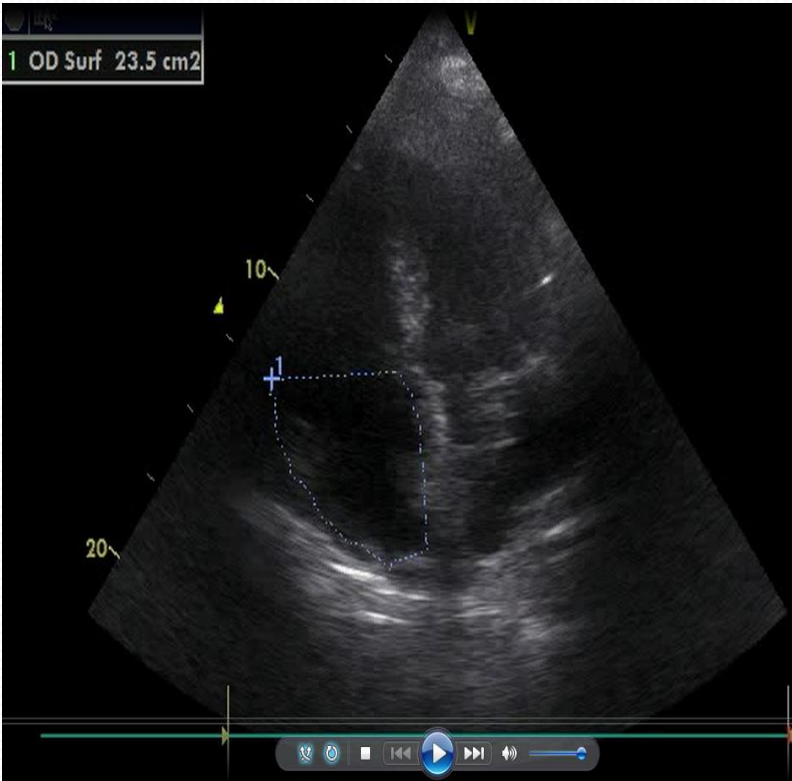
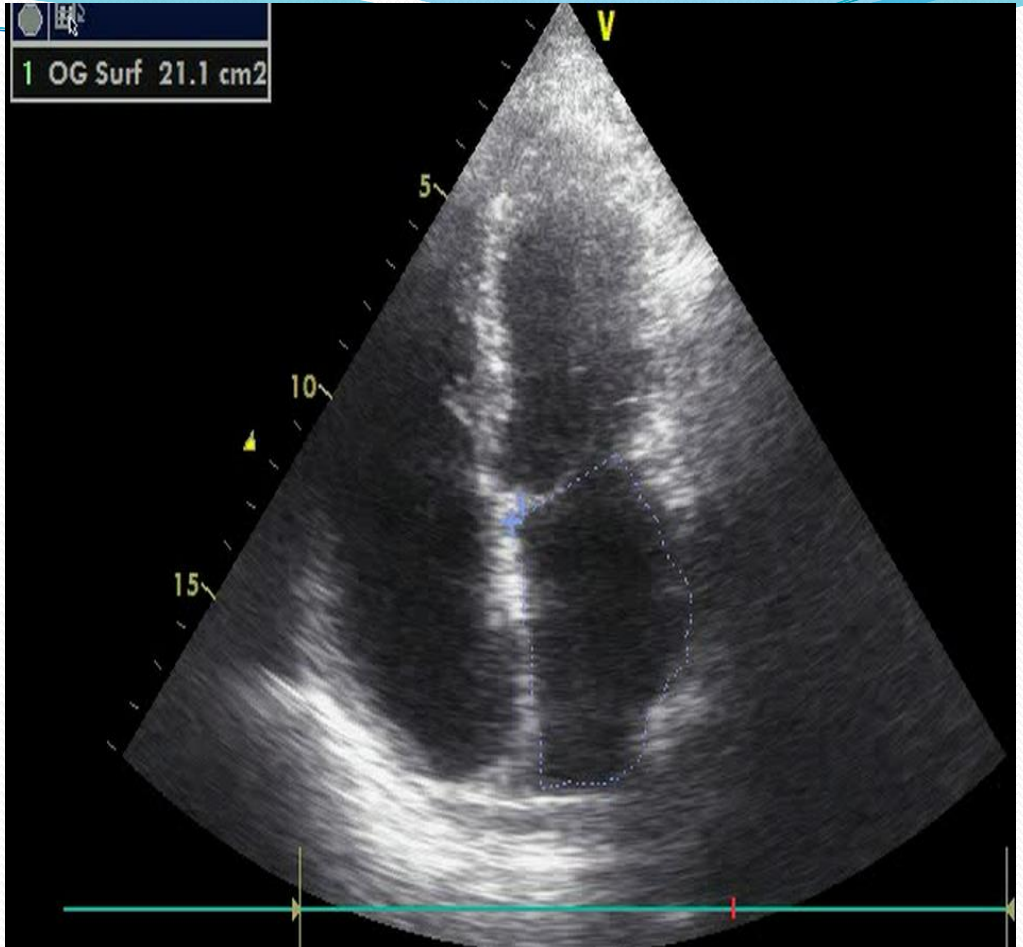


3 L	3.3 cm
2 L	3.3 cm
1 L	3.5 cm

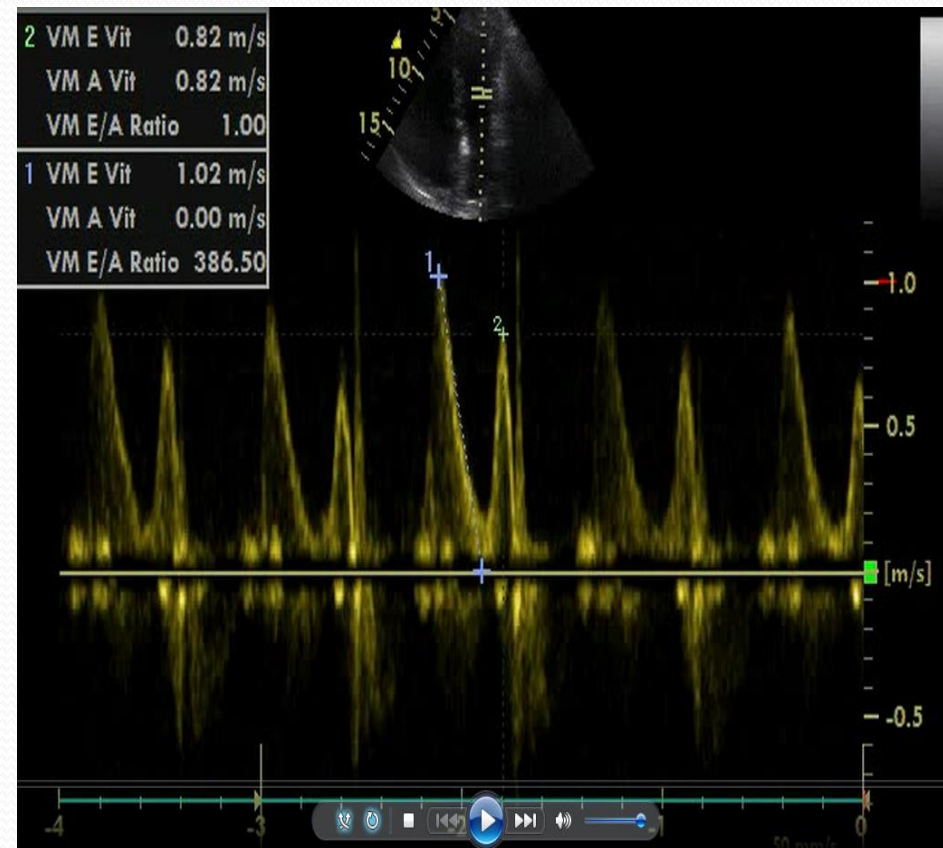
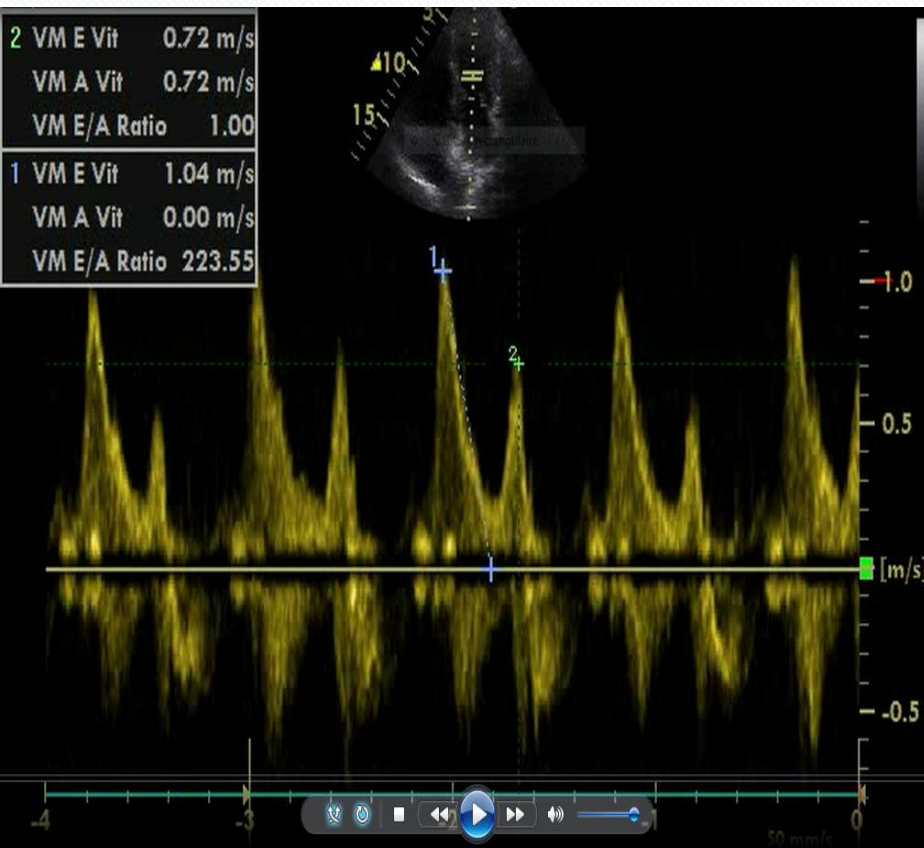


1 L	1.2 cm
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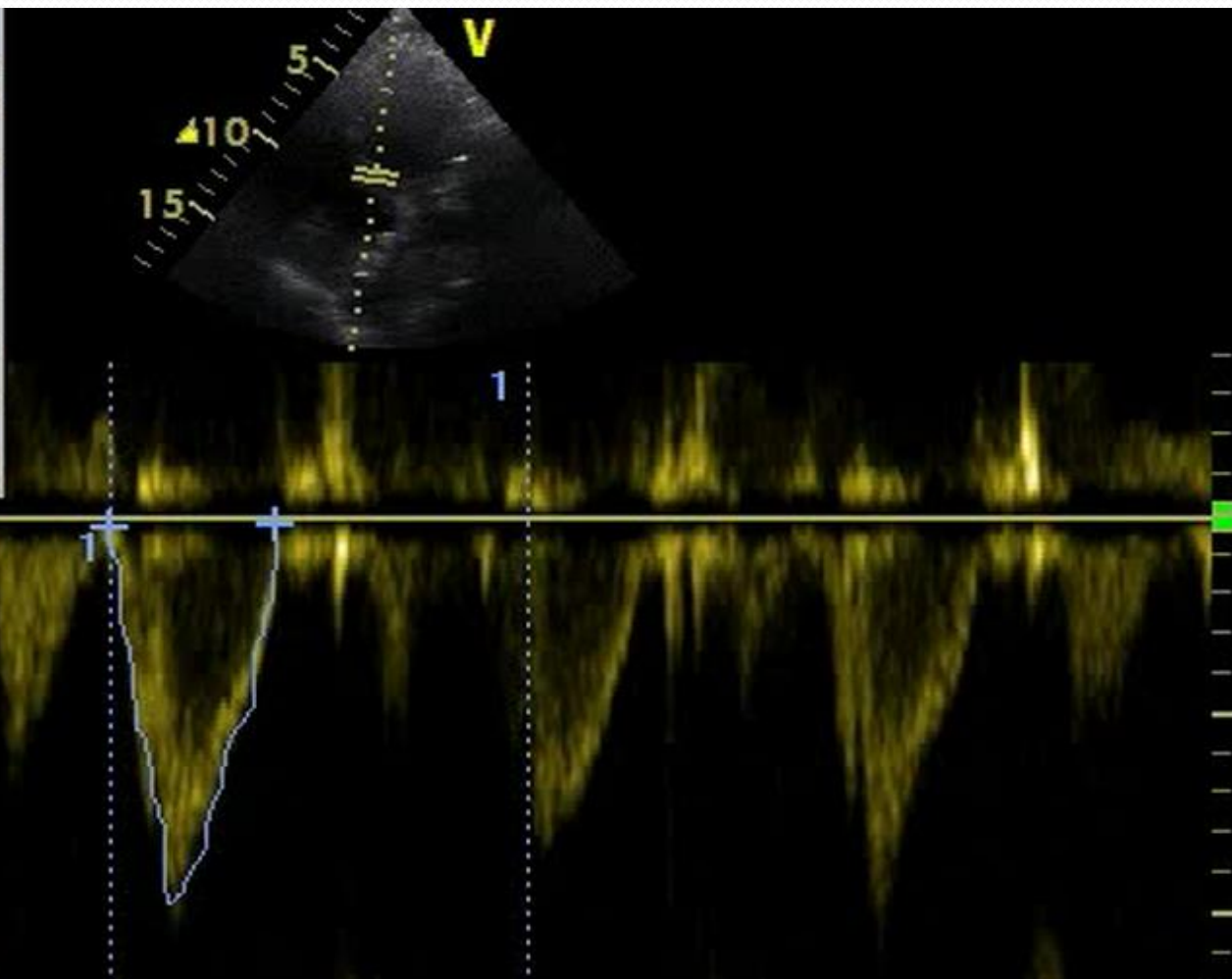


Profil mitral

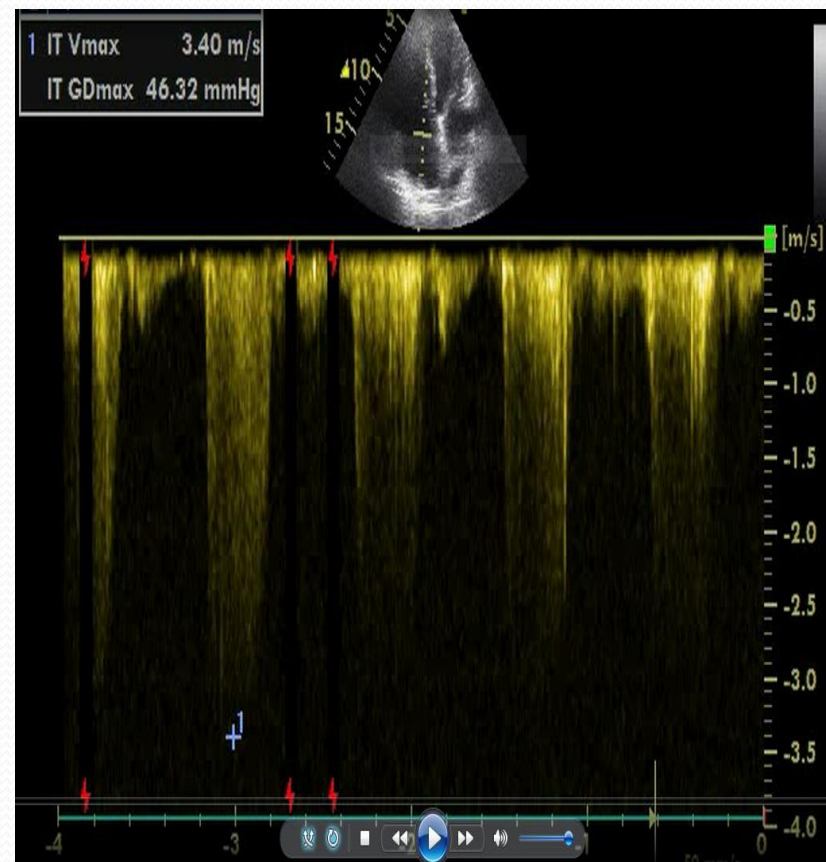
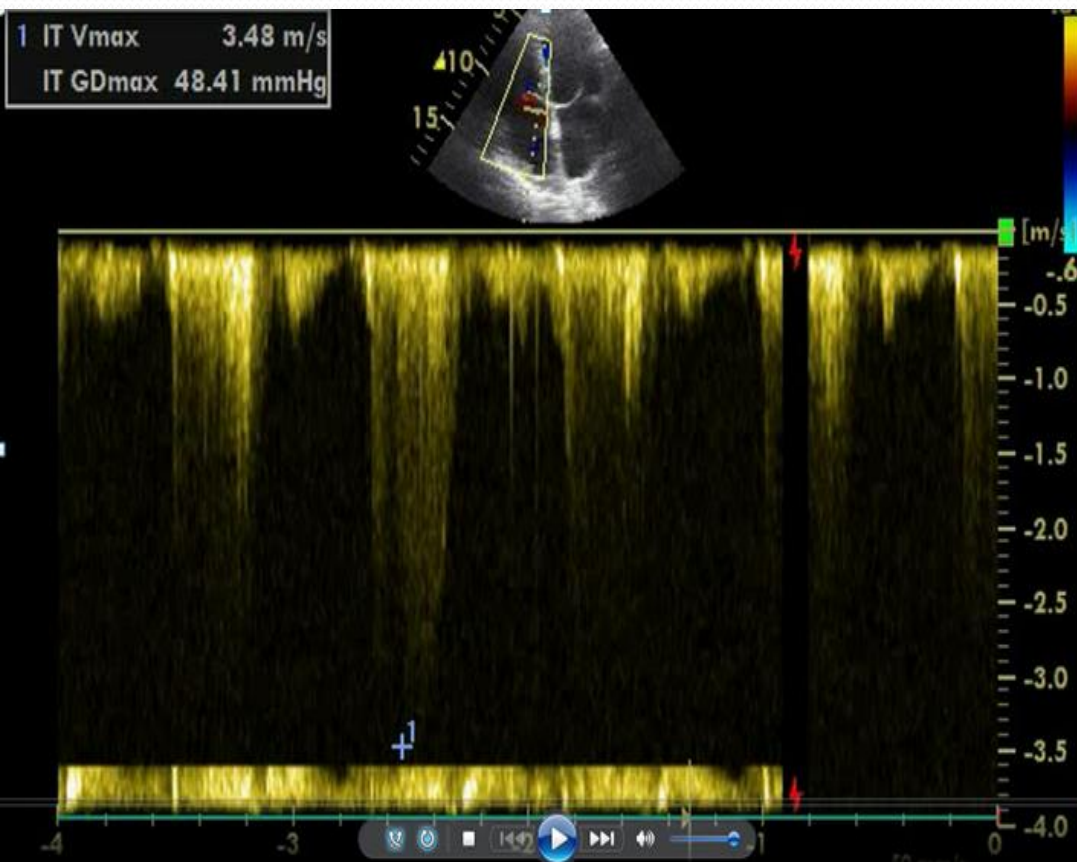


ITV

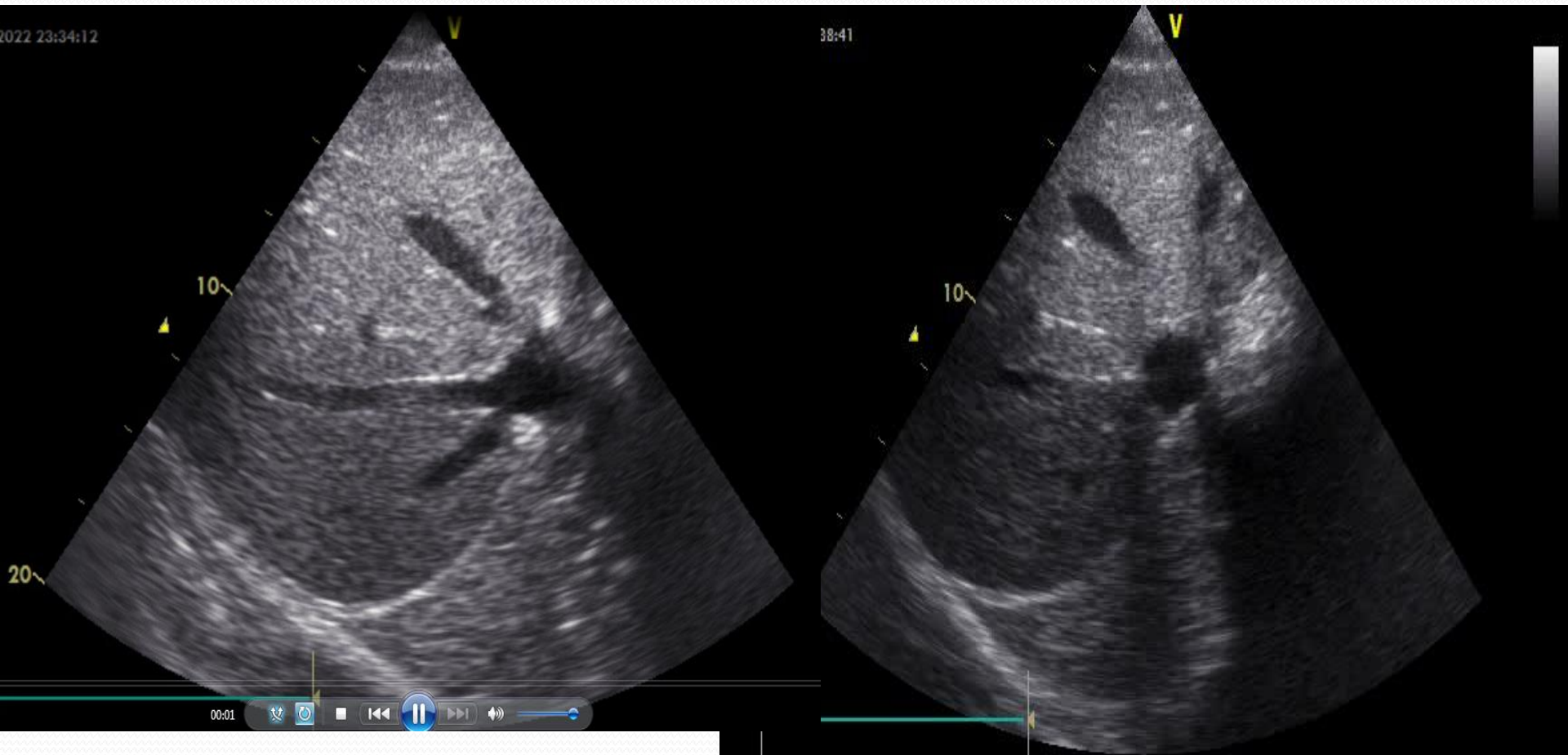
1	VA Vmax	0.97 m/s
	VA Vmoy	0.58 m/s
	VA GDmax	3.77 mmHg
	VA GDmoy	1.64 mmHg
	VA ITV	22.5 cm
	VA Env.Ti	384 ms
	FC	62 BPM



IT



VCI



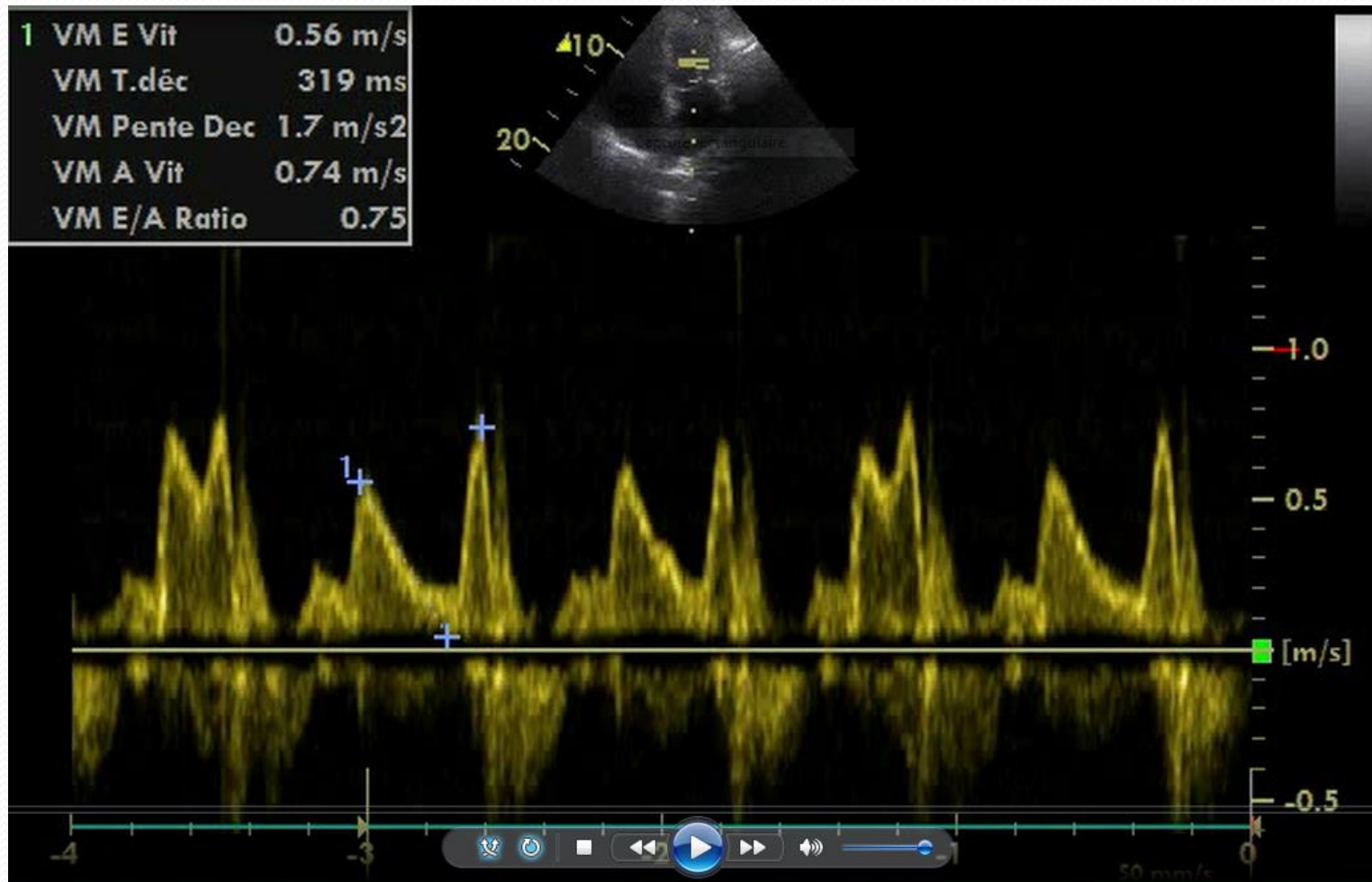
Kissing Heart

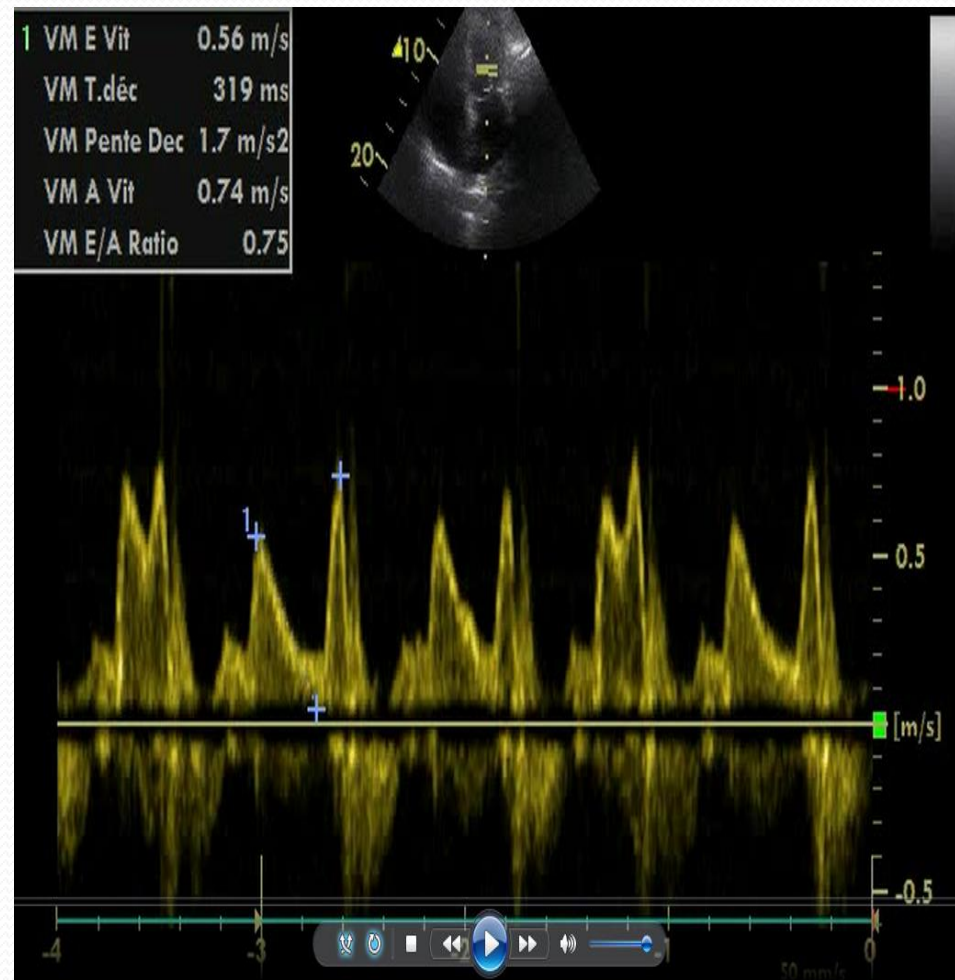
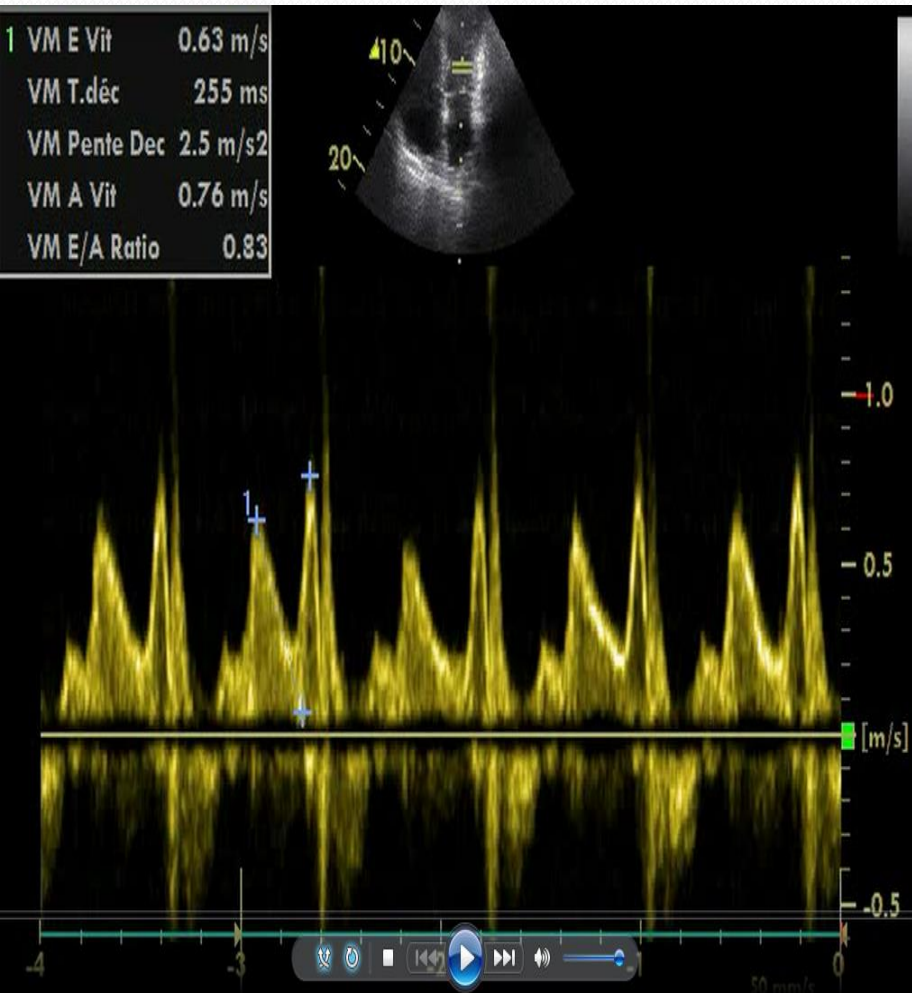


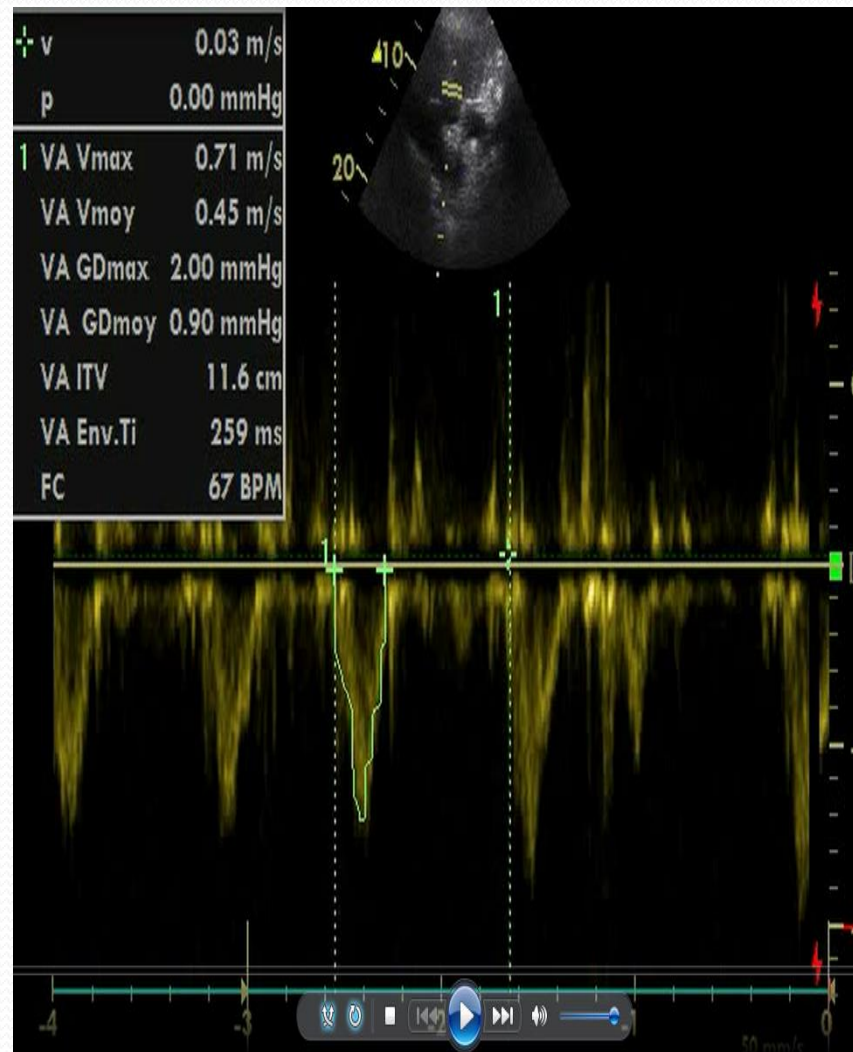
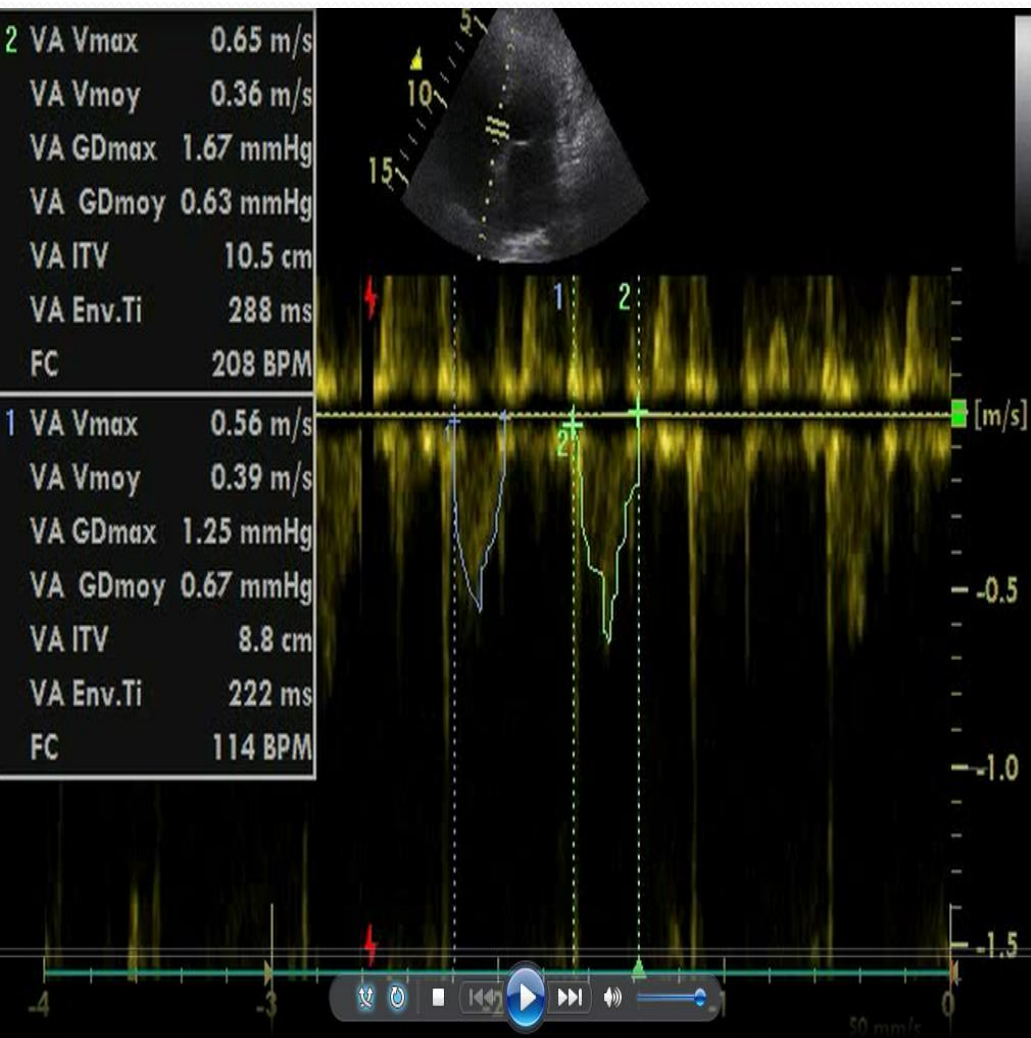


Le diagnostic d 'OAP est retenu

Profil mitral

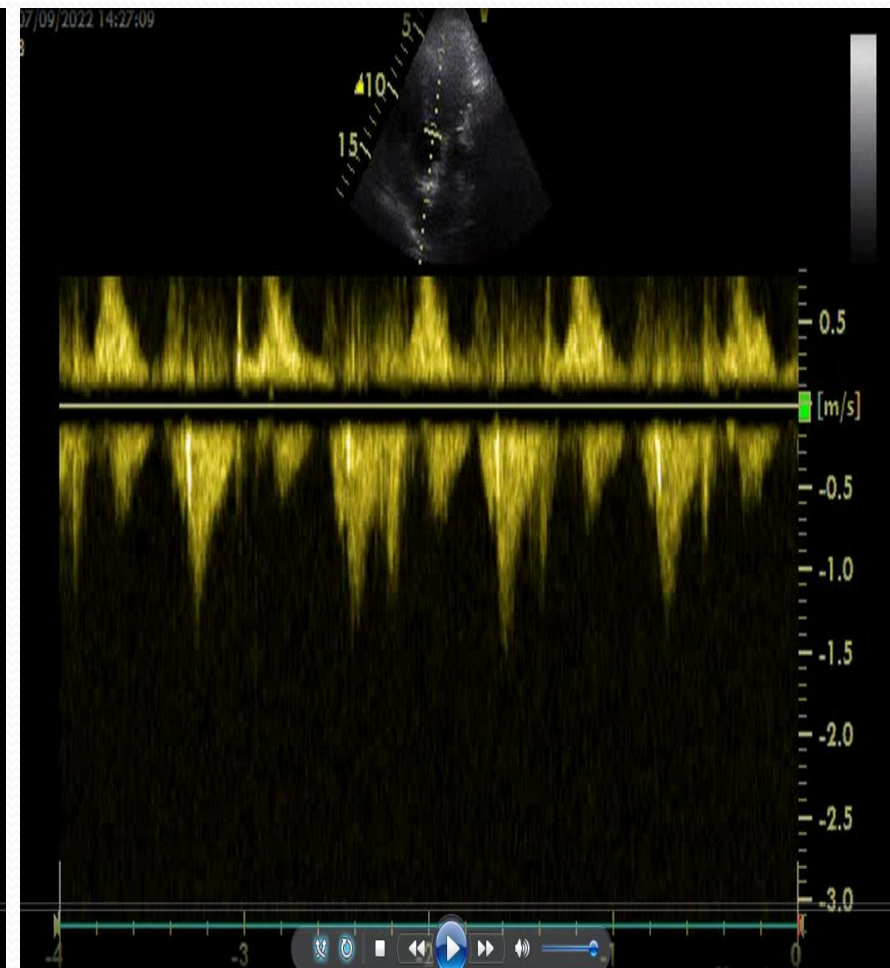
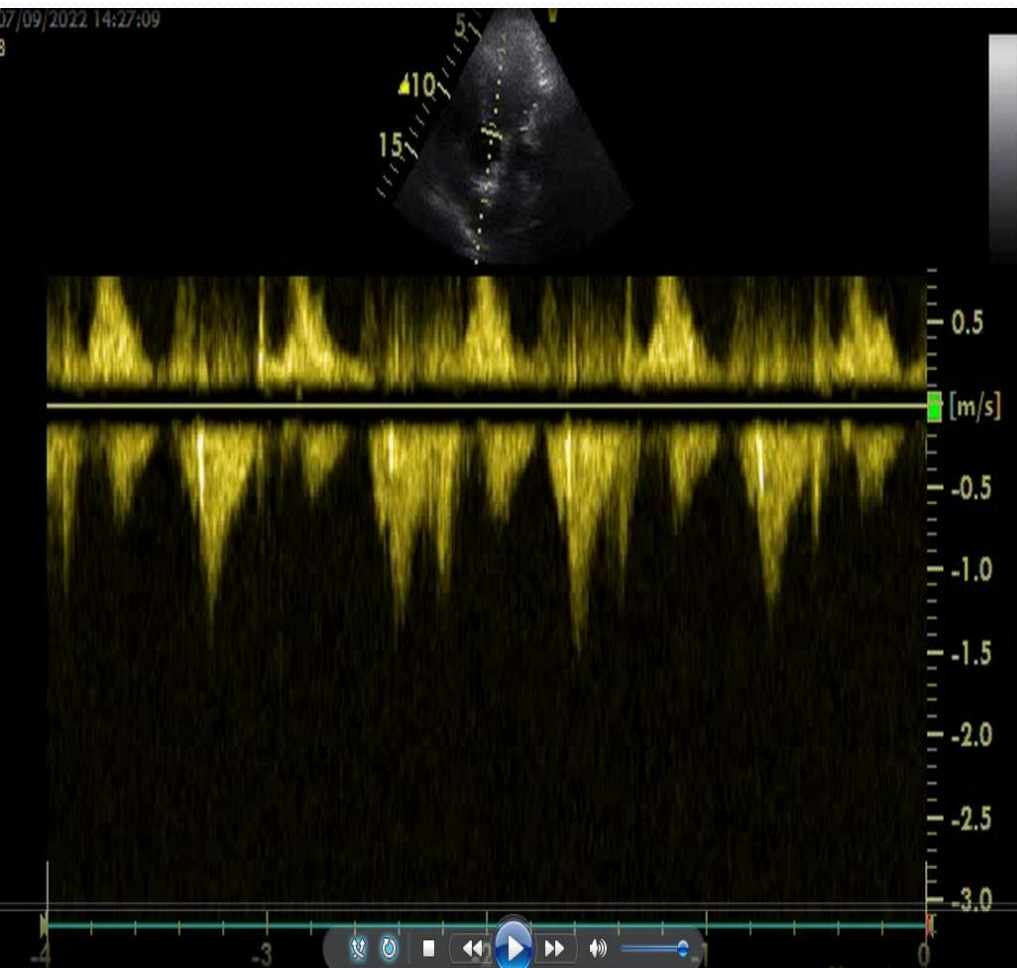




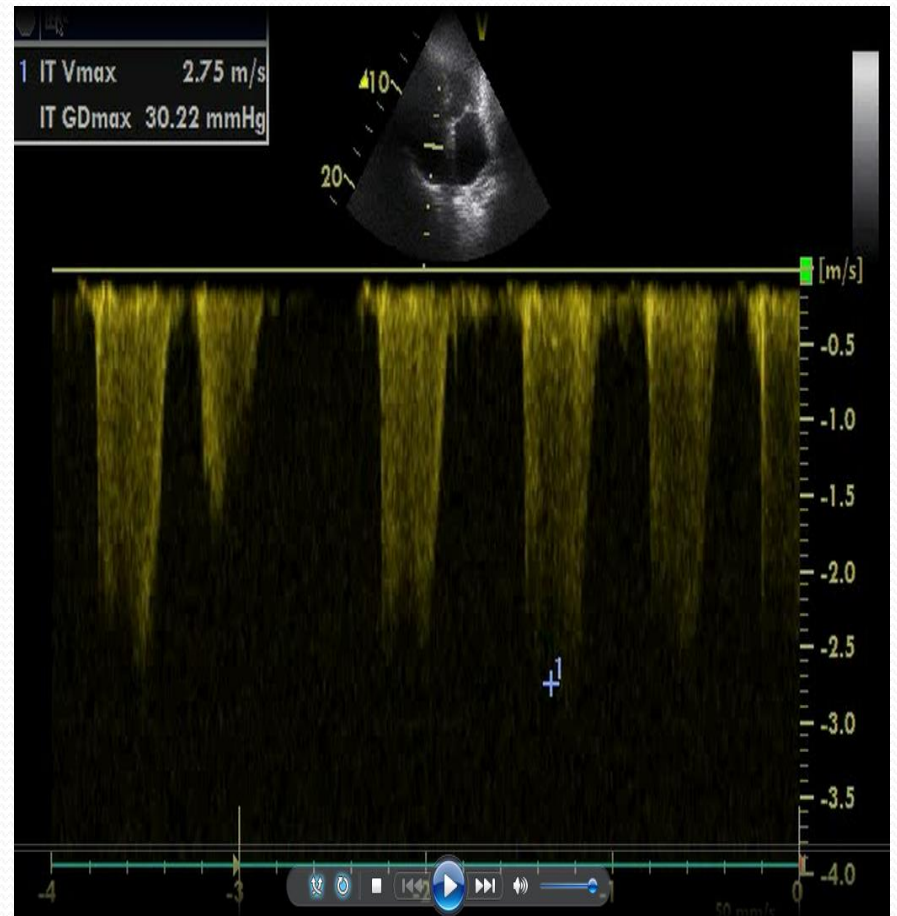
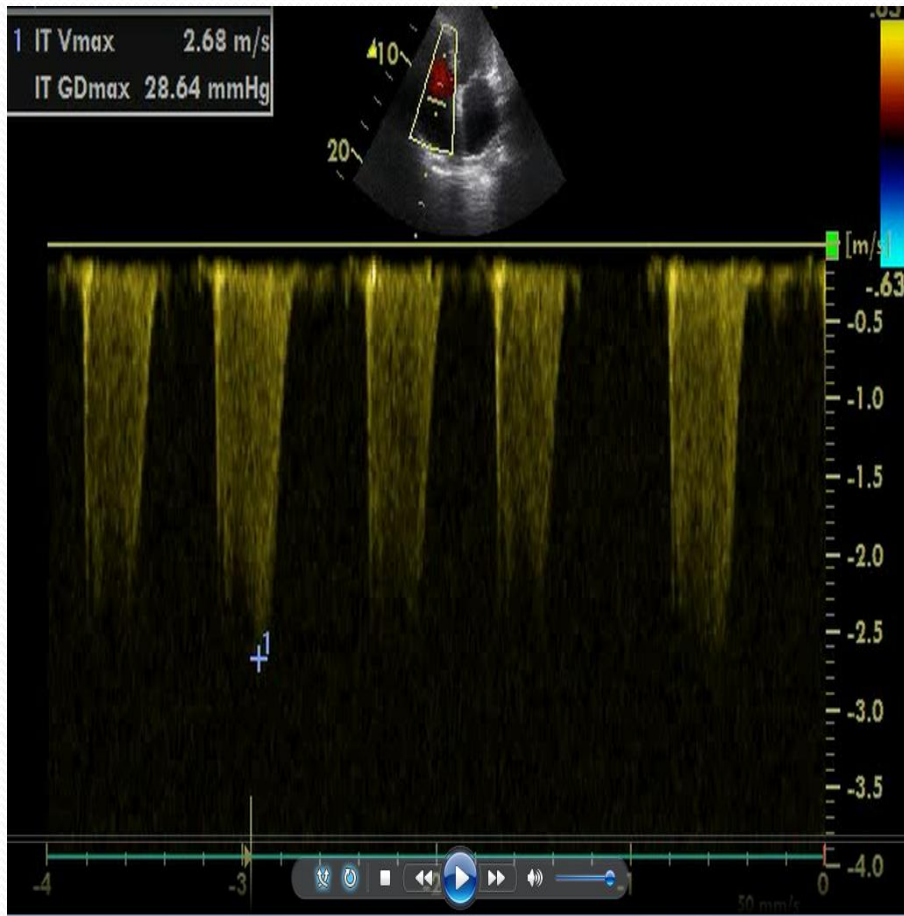


DOPPLER CONTINU

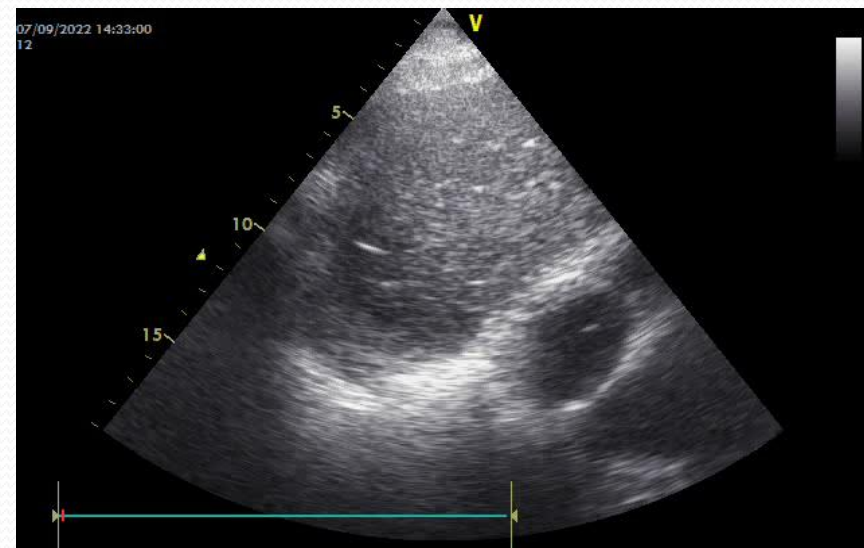
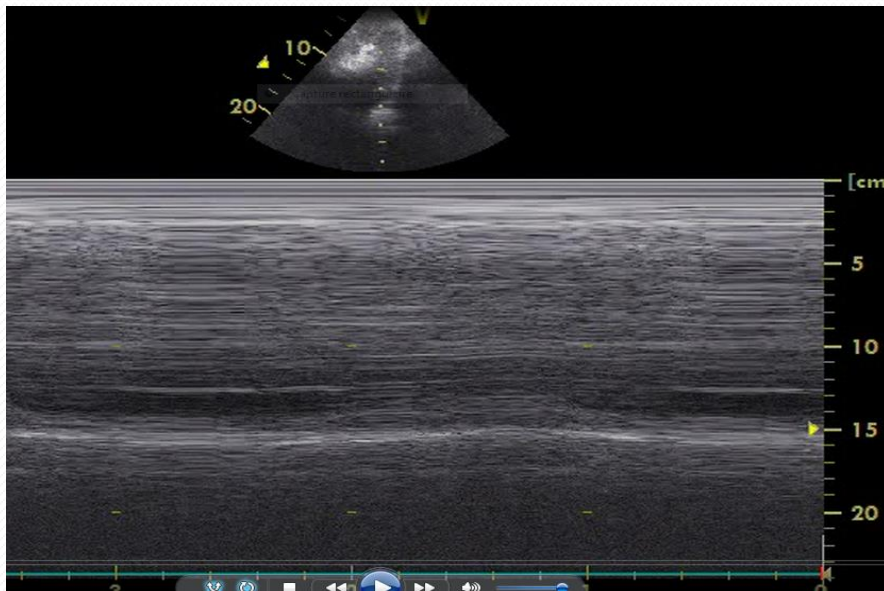
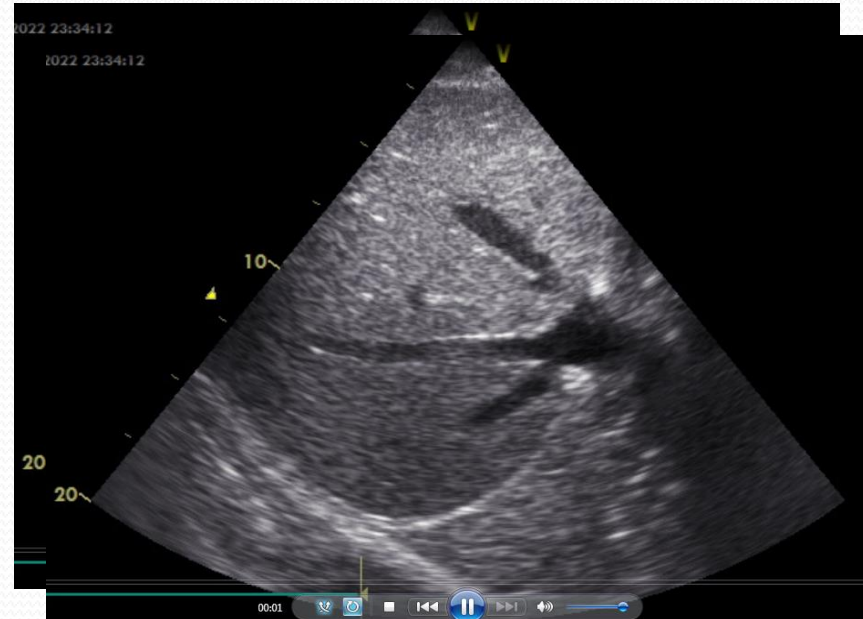
Forme en lame de Sabre



IT



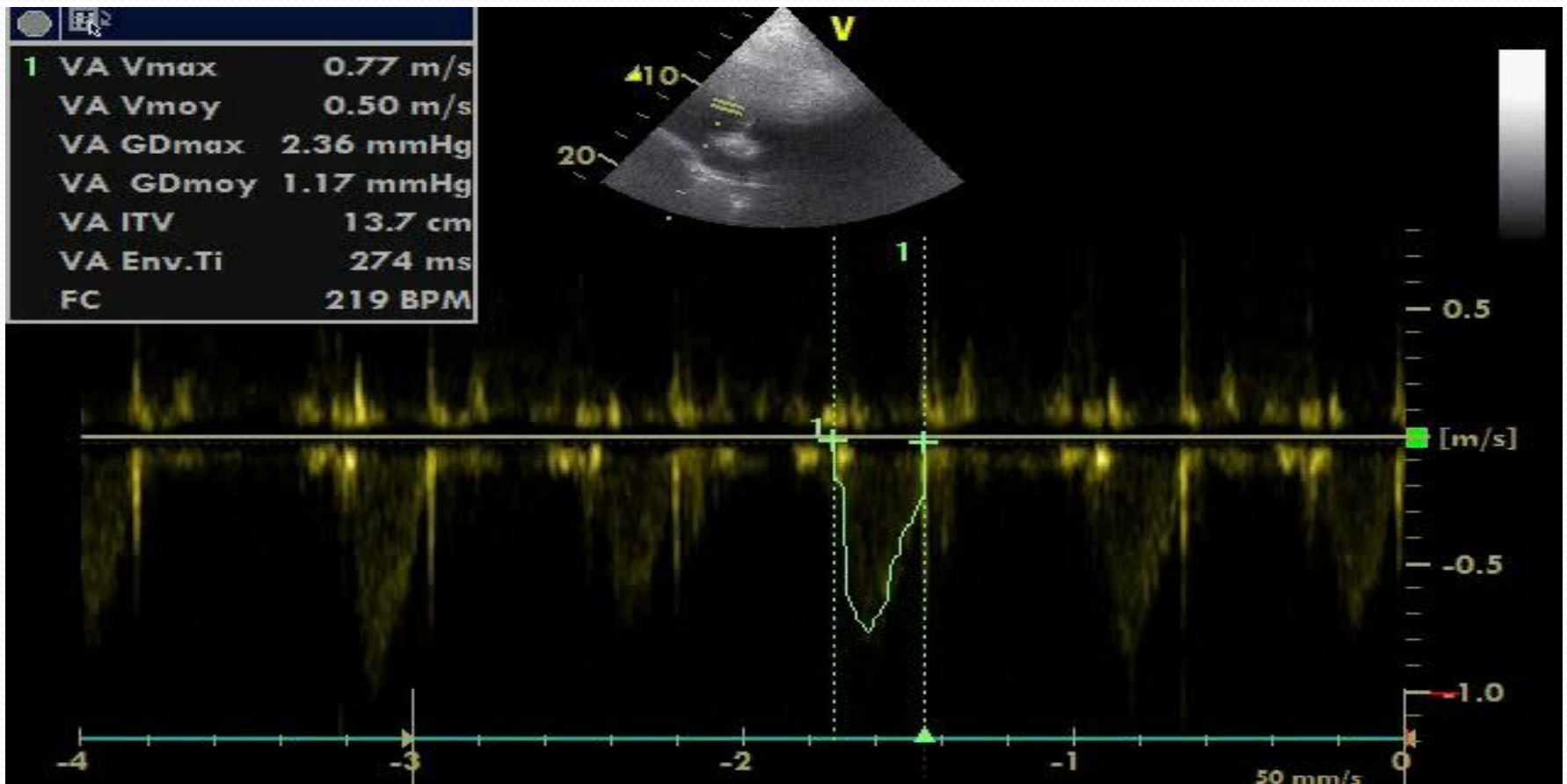
VCI collabée





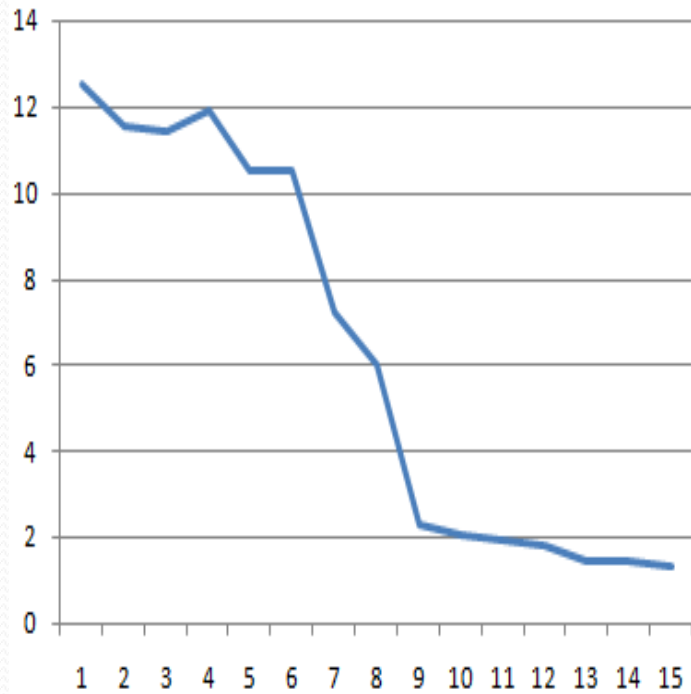
La phase d'hypo volémie

Fluide challenge

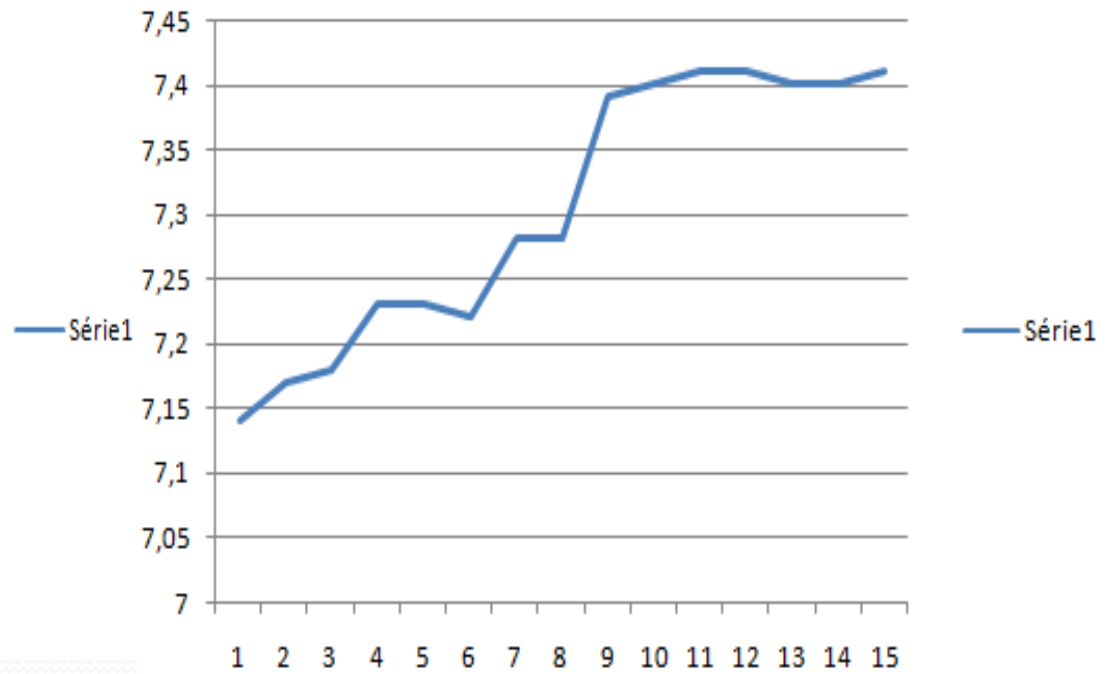


Evolution

Lactates



PH



Conclusion

La médecine moderne se base sur des objectifs thérapeutiques

Le POCUS est une avancée clinique majeure dans la prise en charge des patients en réanimation

Personnaliser la prise en charge des malades améliore leur pronostic

Littérature



Réanimation

Volume 12, Issue 1, 1 January 2003, Pages 19-29

Mise au point

Échographie pleuro-pulmonaire Lung ultrasound




D.A Lichtenstein 

Pleural procedures and thoracic ultrasound: British Thoracic Society pleural disease guideline 2010

Tom Havelock,¹ Richard Teoh,² Diane Laws,³ Fergus Gleeson,⁴ on behalf of the BTS Pleural Disease Guideline Group

**BMJ Open
Respiratory
Research**

British Thoracic Society Training Standards for Thoracic Ultrasound (TUS)

Andrew E Stanton ¹, Anthony Edey,² Matthew Evison ^{3,4}, Ian Forrest,⁵ Sabine Hippolyte,⁶ Jack Kastelik,⁷ Jennifer Latham,⁸ Lola Loewenthal,⁹ Thapas Nagarajan,¹⁰ Mark Roberts,¹¹ Nicholas Smallwood ¹², John E S Park¹³

Littérature



Journal of Critical Care

Volume 27, Issue 5, October 2012, Pages 533.e11-533.e19




Cardiac/Hemodynamics/Monitoring

Integrating lung ultrasound in the hemodynamic evaluation of acute circulatory failure (the fluid administration limited by lung sonography protocol) ☆

Daniel Lichtenstein MD, PhD ^a, Dimitrios Karakitsos MD, PhD ^b  

Review | [Open Access](#) | [Published: 03 July 2020](#)

Recommendations for core critical care ultrasound competencies as a part of specialist training in multidisciplinary intensive care: a framework proposed by the European Society of Intensive Care Medicine (ESICM)

[Adrian Wong](#) , [Laura Galarza](#), [Lui Forni](#), [Daniel De Backer](#), [Michael Slama](#), [Bernard Cholley](#), [Paul Mayo](#), [Anthony McLean](#), [Antoine Vieillard-Baron](#), [Daniel Lichtenstein](#), [Giovanni Volpicelli](#), [Robert Arntfield](#), [Ignacio Martin-Loeches](#), [Gizella Melania Istrate](#) & [František Duška](#) on behalf of ESICM Critical Care Ultrasound Group

Critical Care 24, Article number: 393 (2020) | [Cite this article](#)

6897 Accesses | 22 Citations | 65 Altmetric | [Metrics](#)

Littérature

Ann. Fr. Med. Urgence (2016) 6:284-295
DOI 10.1007/s13341-016-0649-5

RECOMMANDATIONS / RECOMMENDATIONS



Premier niveau de compétence pour l'échographie clinique en médecine d'urgence. Recommandations de la Société française de médecine d'urgence par consensus formalisé

First Level of Clinical Ultrasound in Emergency Medicine. French Society of Emergency Medicine (SFMU) Guidelines by Formal Consensus

J. Duchenne · M. Martinez · C. Rothmann · P.-G. Claret · J.-P. Desclefs · J. Vaux · P. Miroux · O. Ganansia et les membres de la commission des référentiels de la SFMU

Ann. Fr. Med. Urgence (2018) 8:193-202
DOI 10.3166/afmu-2018-0047

RECOMMANDATIONS POUR LA PRATIQUE CLINIQUE / CLINICAL PRACTICE RECOMMENDATIONS

Deuxième niveau de compétence pour l'échographie clinique en médecine d'urgence. Recommandations de la Société française de médecine d'urgence par consensus formalisé

Second Level of Clinical Sonography in Emergency Medicine. French Society of Emergency Medicine (SFMU) Guidelines by Formal Consensus



M. Martinez · J. Duchenne · X. Bobbia · S. Brunet · P. Fournier · P. Miroux · C. Perrier · P. Pès · A. Chauvin · P.-G. Claret · les membres de la commission des référentiels de la SFMU

Reçu le 4 mai 2018 ; accepté le 14 mai 2018
© SFMU et Lavoisier SAS 2018

Paramètres	PH	Lactates mmol/l	HCO3-mmo/l	PCO2mmol/l	PO2mmol/l	
Admission		7,14	12,5	8,4	21,6	84,4
Post dialyse		7,17	11,5	10,1	22,6	102
J2 matin		7,17	11,4	11	23,8	122
J2soir		7,179	11,9	11,5	22,1	79,2
J3		7,179	10,5	12	23,1	66
J3matin		7,179	10,5	12,2	22,9	66
J3 midi		7,179	7,2	13,1	28	61
J3post VNI		7,179	6	15,3	28,4	69
J4		7,179	2,3	16	29,8	94,7
J5		7,179	2	16,5	30	85
J6		7,179	1,9	16,8	31,5	82
J7		7,179	1,8	21,7	34,4	77
J8		7,179	1,4	22	34,7	69
J9			1,4	22,1	35	69
J10		7,41	1,3	22,3	37,5	69