



La cardiopathie hypertensive dans tous ses états

L'HVG du patient hypertendu : ce que l'on ne vous a jamais dit

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Liens d'intérêts

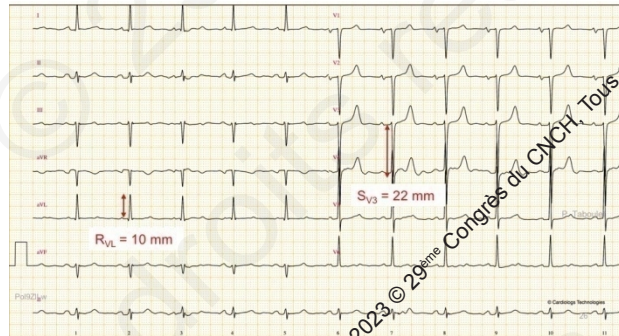
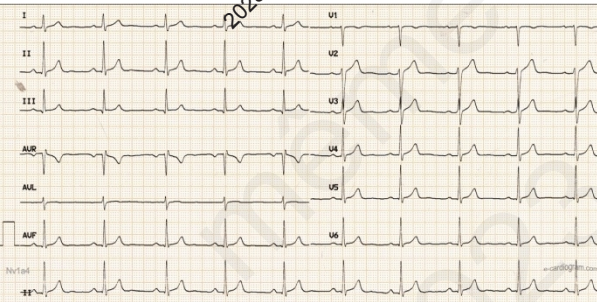
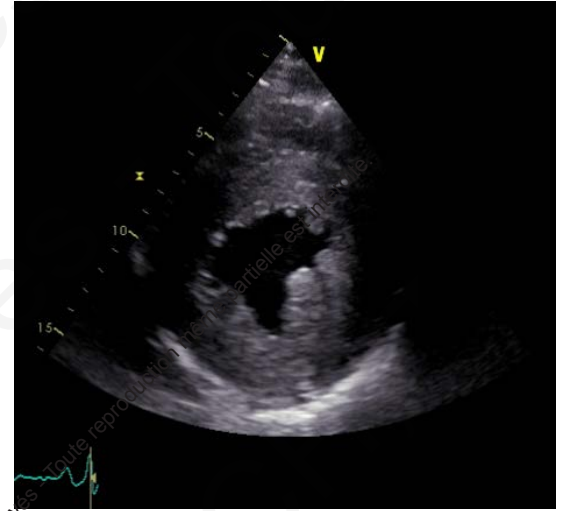
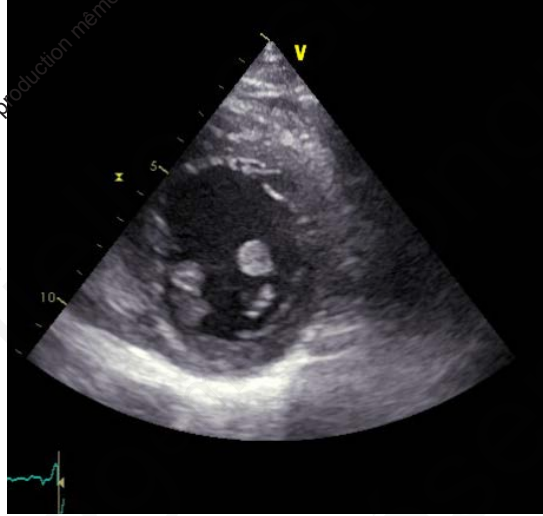
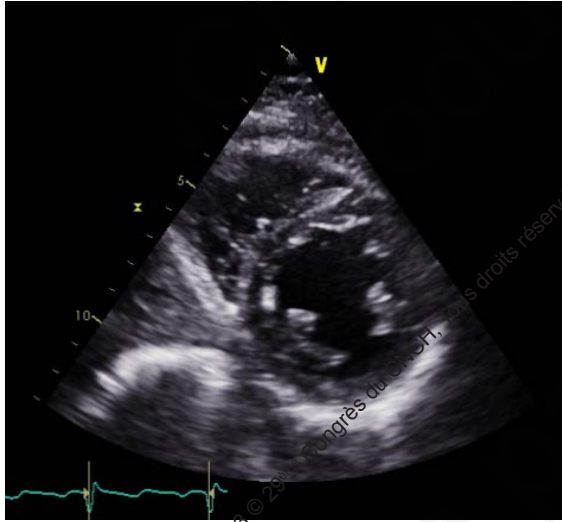
I currently have, or have had over the last two years, an affiliation or financial interests or interests of any order with a company or I receive compensation or fees or research grants with a commercial company :

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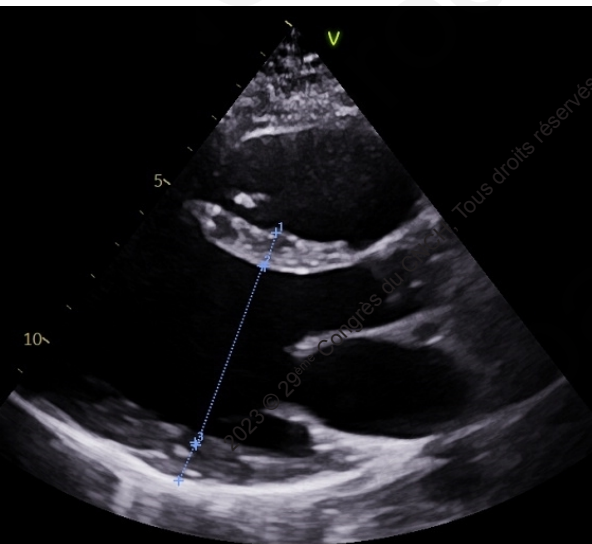
Prises en charge pour des congrès et des soirées de formation des correspondants :

- Servier, Medtronic, Novartis, Novonordisk, Bouchara-recordati, Bayer, Astrazeneca.

Qu'est ce que ces patients ont en commun ?



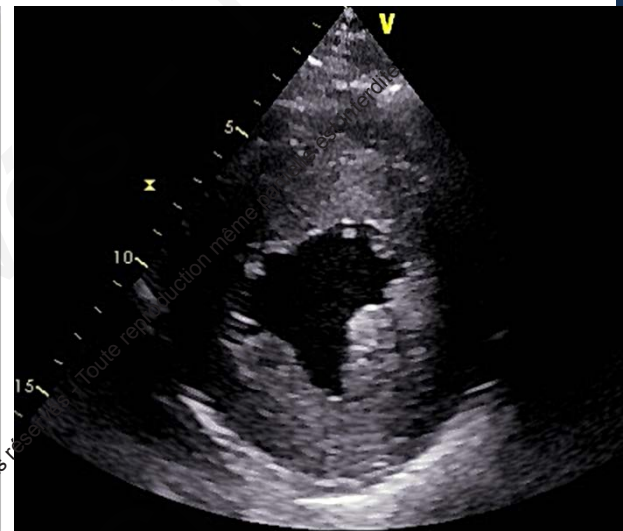
Qu'est ce que ces patients ont en commun ?



Masse VG
100 g/m²



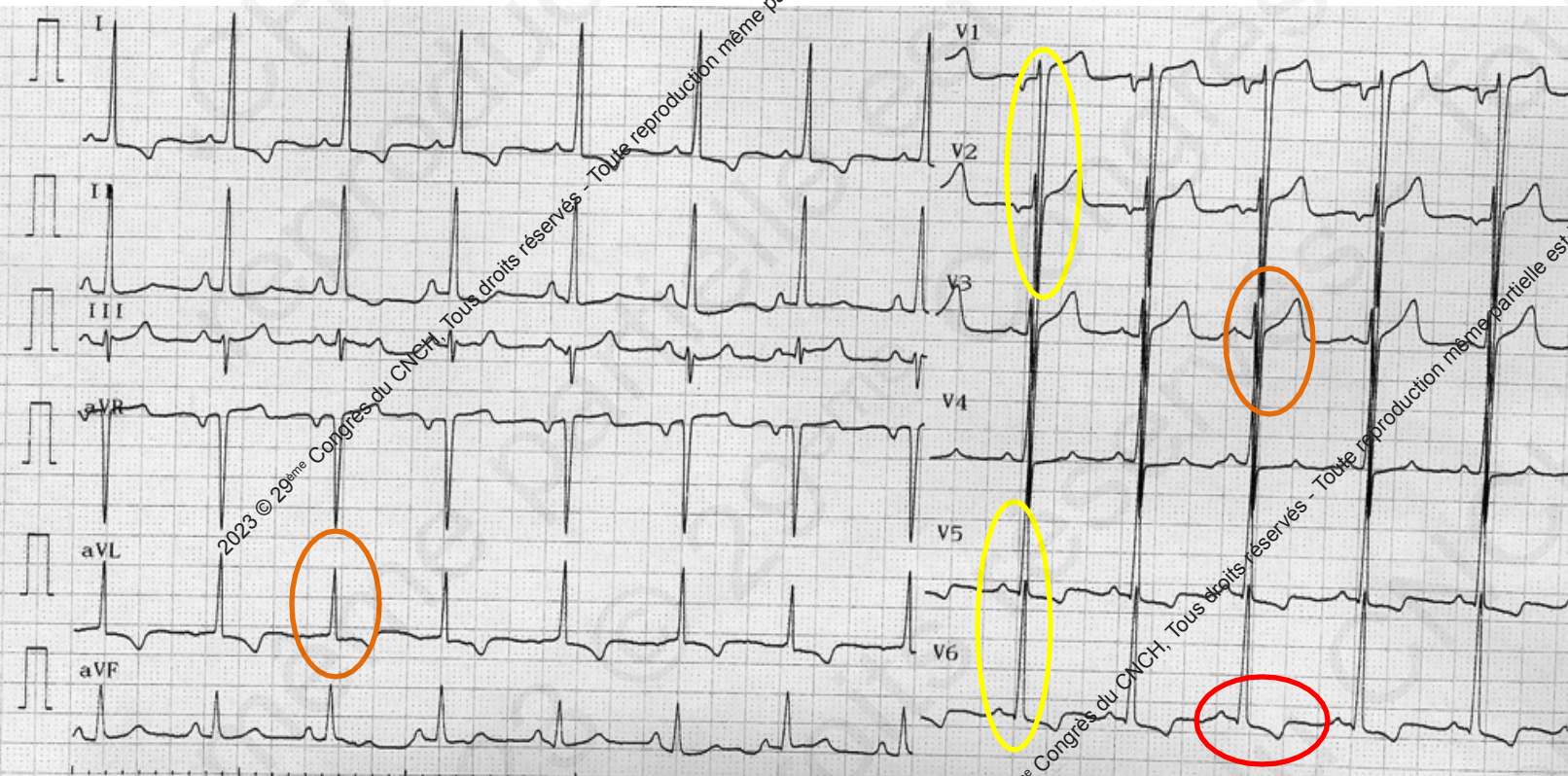
Masse VG
130 g/m²



Masse VG
210 g/m²

! Ce sont tous des patients (juste) hypertendus !

Nous ne reviendrons pas sur...



RaVL > 10 mm

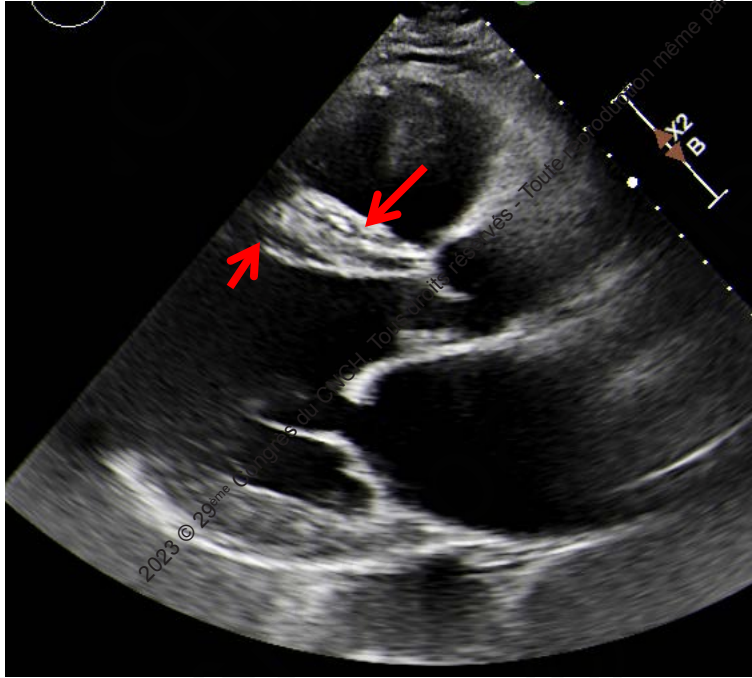
Cornell > 20 mm > 28 mm

Sokolov > 35

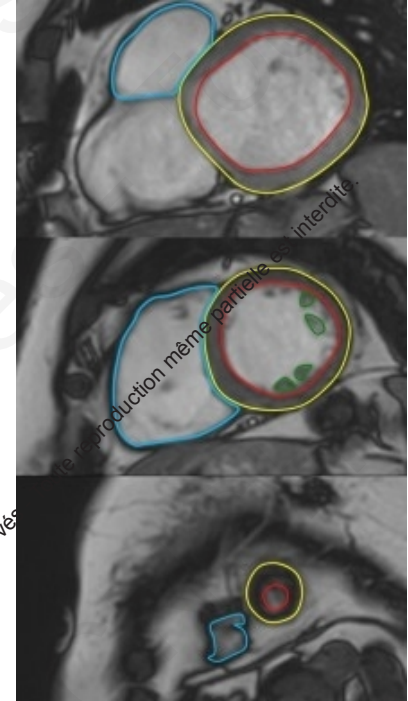
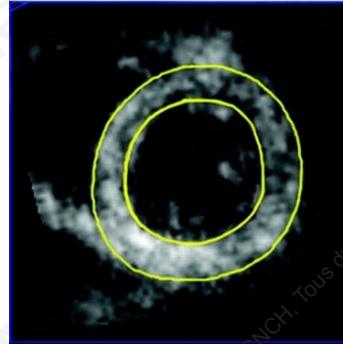
Ischémie microvasculaire

L'ECG, très disponible

Nous ne reviendrons pas sur...



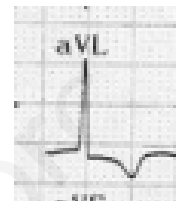
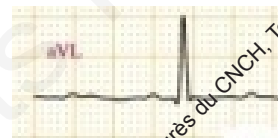
MVGi : < 95 ou 115 g/m^2
VOGi, E/E', GLS



MVGi : < 77 ou 96 g/m^2

ECG < ETT 2D < ETT 3D < IRM / Scanner

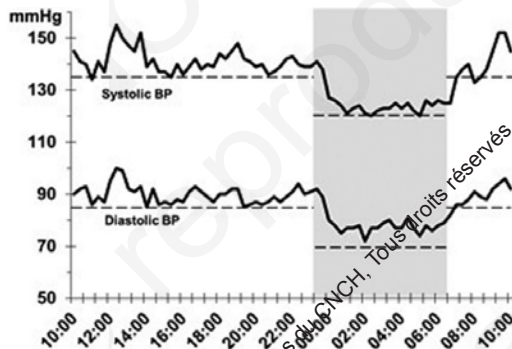
D'accord, mais au quotidien ?



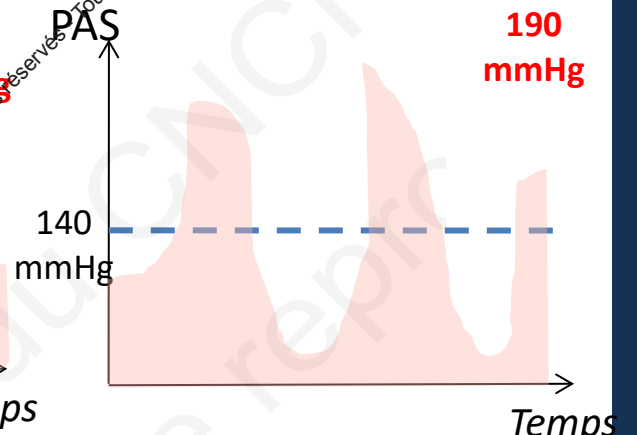
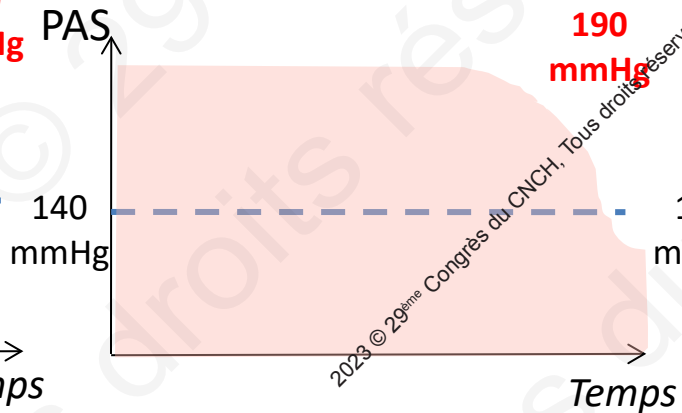
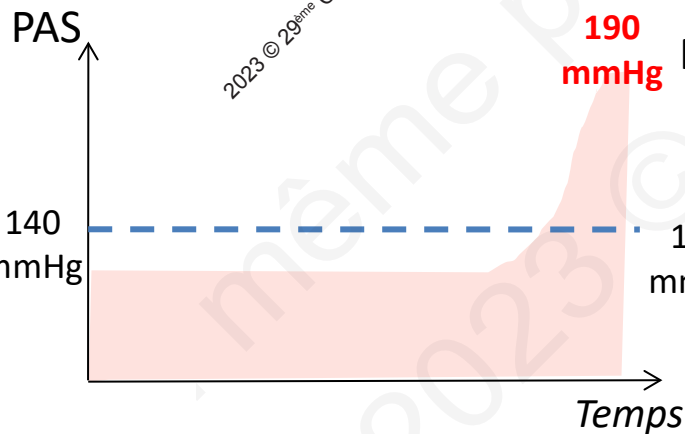
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Comment utiliser la MVG dans la pratique ?



La MVG est l'HBA1C de l'HTA !



Comment utiliser la MVG dans la pratique ?

Original Article

Prognostic value of the extent of left ventricular hypertrophy and its evolution in the hypertensive patient

Philippe Gosse, Antoine Cremer, Marion Vircoulon, Paul Coulon, Emilie Jan, Georgios Papaioannou, and Sunthareth Yeim

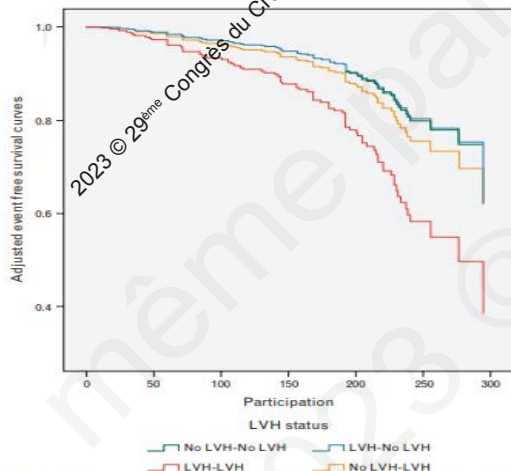


FIGURE 4 Adjusted event-free survival curves as a function of the LVH status at entry and at follow-up.



European Heart Journal (2010) 31, 883–891
doi:10.1093/eurheart/ehp546

CLINICAL RESEARCH

Prevention

Risk prediction is improved by adding markers of subclinical organ damage to SCORE

Thomas Sehestedt^{1,2*}, Jørgen Jeppesen¹, The W. Hansen^{2,3}, Kristian Wachtell⁴, Hans Ibsen⁵, Christian Torp-Petersen⁶, Per Hildebrandt¹, and Michael H. Olsen¹

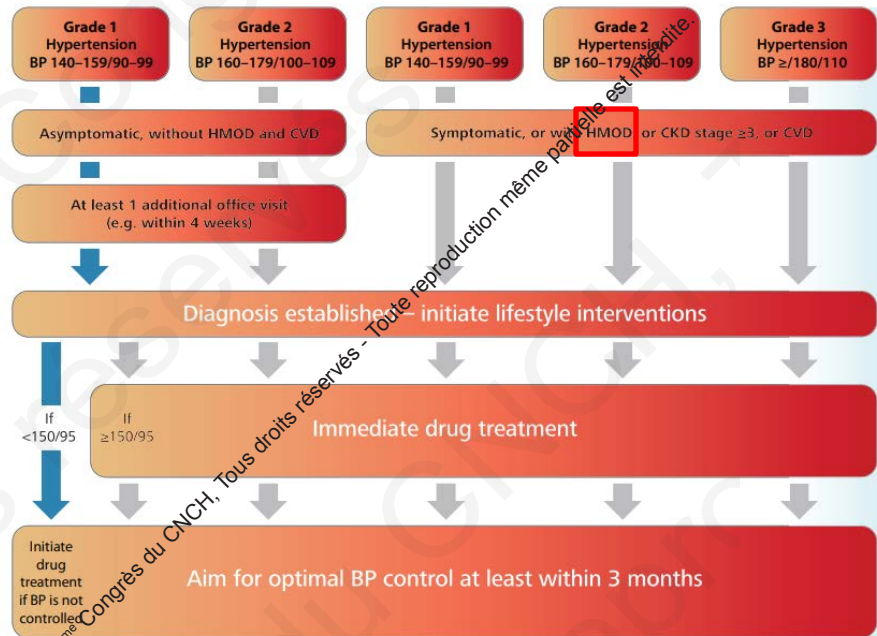
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Comment utiliser la MVG dans la pratique ?



2023 ESH Guidelines
for the management
of arterial hypertension

Hypertension disease staging	Other risk factors, HMOD, CVD or CKD	BP (mmHg) grading			
		High-normal SBP 130–139 DBP 85–89	Grade 1 SBP 140–159 DBP 90–99	Grade 2 SBP 160–179 DBP 100–109	Grade 3 SBP ≥ 180 DBP ≥ 110
Stage 1	No other risk factors*	Low risk	Low risk	Moderate risk	High risk
	1 or 2 risk factors	Low risk	Moderate risk	Moderate to high risk	High risk
	≥3 risk factors	Low to moderate risk	Moderate to high risk	High risk	High risk
Stage 2	HMOD, CKD grade 3, or diabetes mellitus	Moderate to high risk	High risk	High risk	Very high risk
Stage 3	Established CVD or CKD grade ≥4	Very high risk	Very high risk	Very high risk	Very high risk



Diagnosis by office BP and initial management of hypertension.

Témoin de l'histoire et du retentissement de l'HTA sur le patient !

Comment utiliser la MVG dans la pratique ?

TABLE 13. Patient characteristics that should raise the suspicion of secondary hypertension

Younger patients (<40 years) with grade 2 or 3 hypertension or hypertension of any grade in childhood
Sudden onset of hypertension in individuals with previously documented normotension
Acute worsening of BP control in patients with previously well controlled by treatment
True resistant hypertension
Hypertensive emergency
Severe (grade 3) or malignant hypertension
Severe and/or extensive HMOD, particularly if disproportionate for the duration and severity of the BP elevation
Clinical or biochemical features suggestive of endocrine causes of hypertension
Clinical features suggestive of renovascular hypertension or fibromuscular dysplasia
Clinical features suggestive of obstructive sleep apnea
Severe hypertension in pregnancy (>160/110 mmHg) or acute worsening of BP control in pregnant women with preexisting hypertension

Alteration of left ventricular longitudinal systolic function in 2D-strain in primary aldosteronism: A new target organ damage marker

R. Bouletreau^{a,*}, A. Cremer^b, N. Delarche^b, P. Gosse^b

^a Service de cardiologie, centre hospitalier de Pau, 4, boulevard Hauteville, 64000 Pau, France

^b Centre d'excellence en hypertension artérielle, hôpital St-André, CHU de Bordeaux, 1, rue Jean-Burguet, 33000 Bordeaux, France

Reçu le 2 août 2018 ; accepté le 23 août 2018

Disponible sur Internet le 14 octobre 2018

Tableau 2
Paramètres géométriques du ventricule gauche.

	HAP (n = 35)	HTAE (n = 35)	p
VTVDG (mL)	104,4 ± 27,8	97,7 ± 32,4	0,41
SIVd (mm)	11 ± 2,2	9 ± 1,9	9 × 10 ⁻⁵
PPd (mm)	11,2 ± 2	9 ± 1,7	8 × 10 ⁻⁷
EPR	0,44 ± 0,08	0,36 ± 0,06	5 × 10 ⁻⁵
MVGi (g/m ²)	135,4 ± 36,8	103,0 ± 38,1	7 × 10 ⁻⁴
MVGi (g/m ^{2.7})	60,3 ± 16,1	47,3 ± 18,6	0,003
MVG (grammes)	262,2 ± 87,7	194,0 ± 83,4	0,001

Tableau 3
Fonction systolique du ventricule gauche.

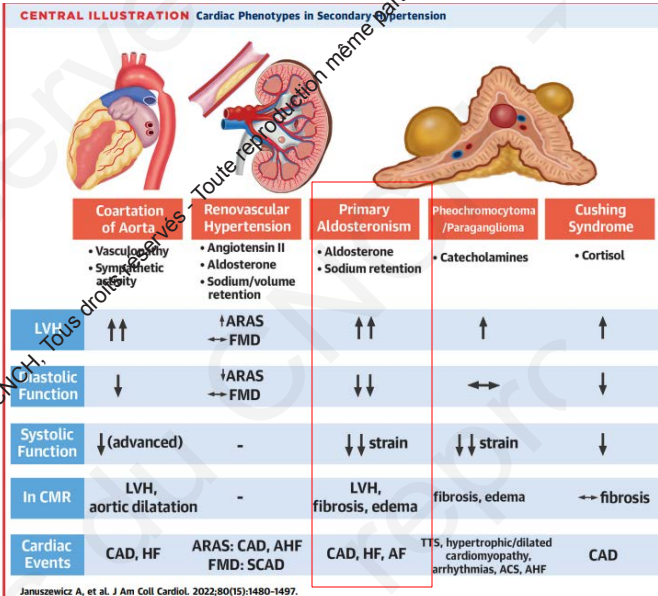
	HAP (n = 35)	HTAE (n = 35)	p
Strain-2D longitudinal (%)	-17,8 ± 3,4	-20,3 ± 3,6	0,004
Strain-2D circonférentiel (%)	-17,1 ± 4,1	-18,4 ± 4,6	0,41
Strain-2D radial (%)	56,7 ± 23,7	58,7 ± 22,0	0,8
FEVG (%)	68,7 ± 6,3	67,8 ± 6,4	0,58

THE PRESENT AND FUTURE

JACC STATE-OF-THE-ART REVIEW

Cardiac Phenotypes in Secondary Hypertension

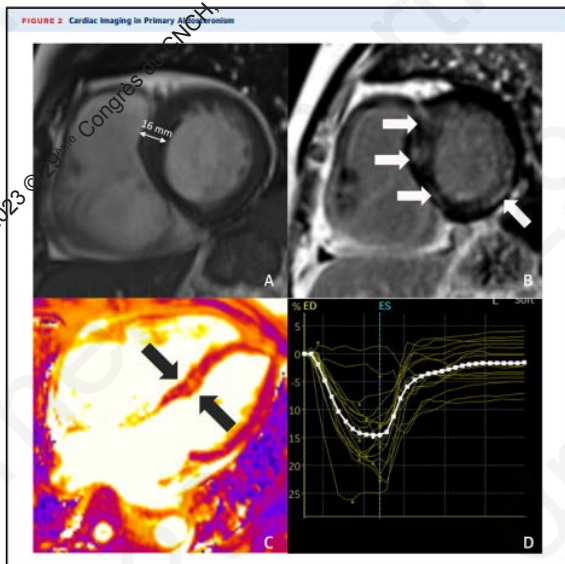
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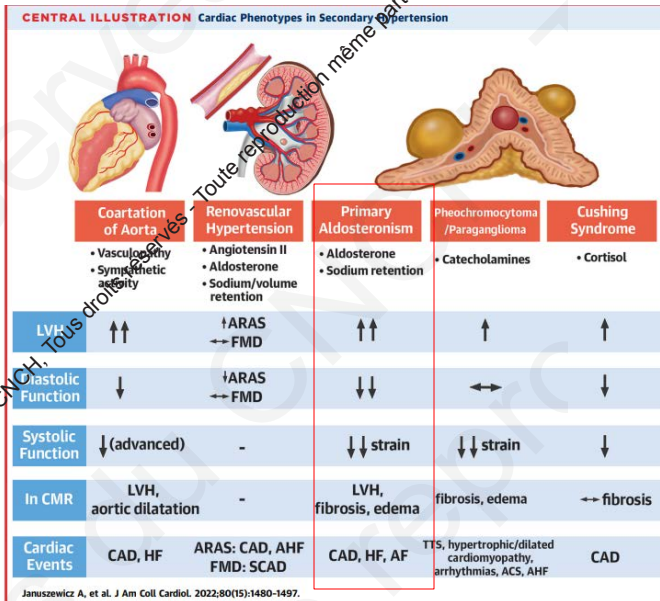


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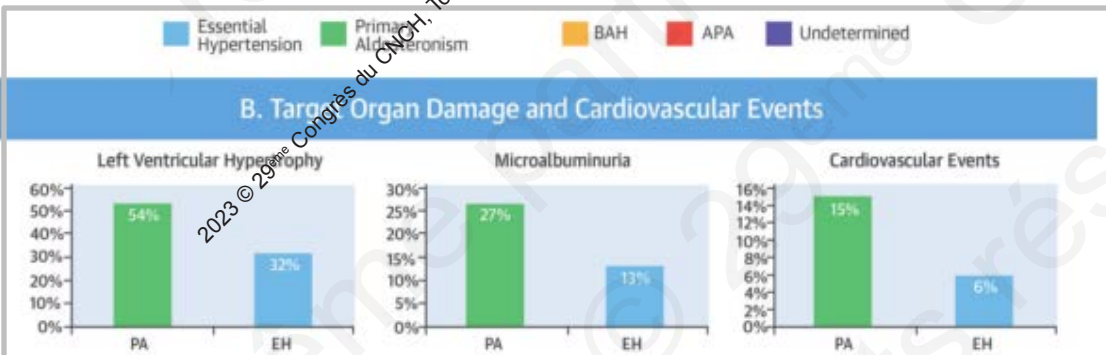


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Monticone, S. et al. J Am Coll Cardiol. 2017;69(14):1811-20.

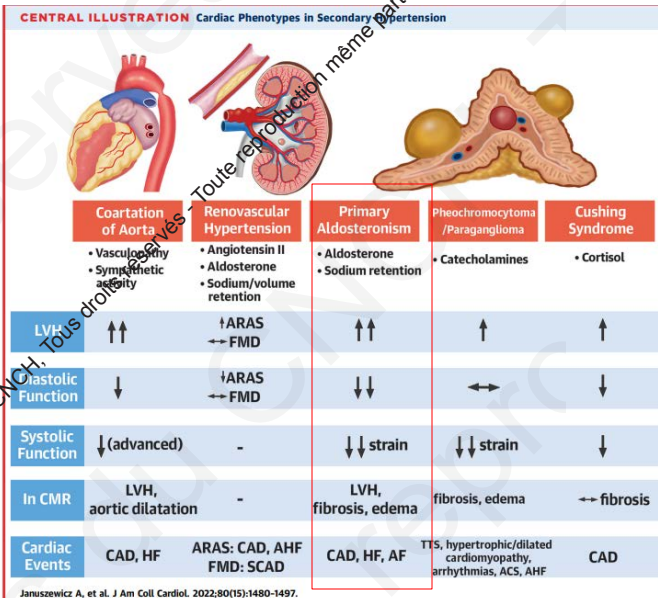
Milliez et al. JACC, 2005
 Hundemer et al, Lancet Diabetes Endocrinol, 2018
 Monticone et al, Lancet Diabetes Endocrinol, 2018

THE PRESENT AND FUTURE

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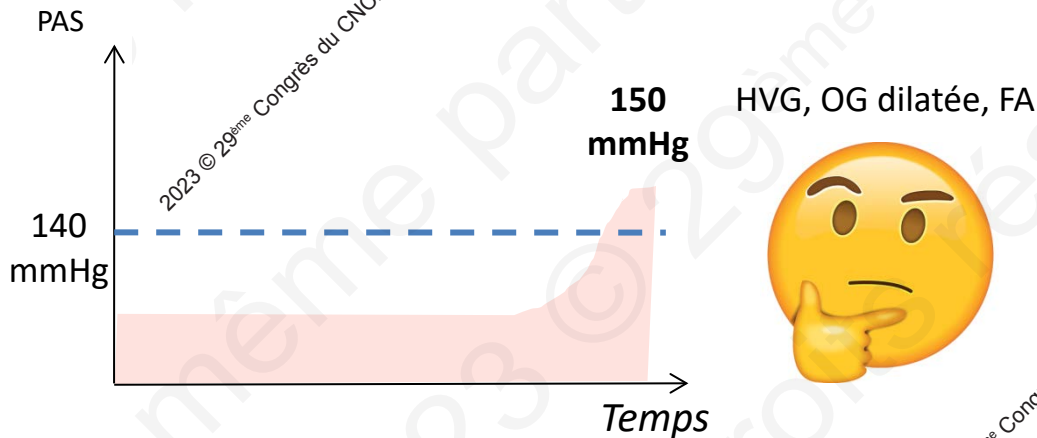
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Pour ne pas rater une HTA secondaire !

THE PRESENT AND FUTURE

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Cardiac Phenotypes in Secondary Hypertension

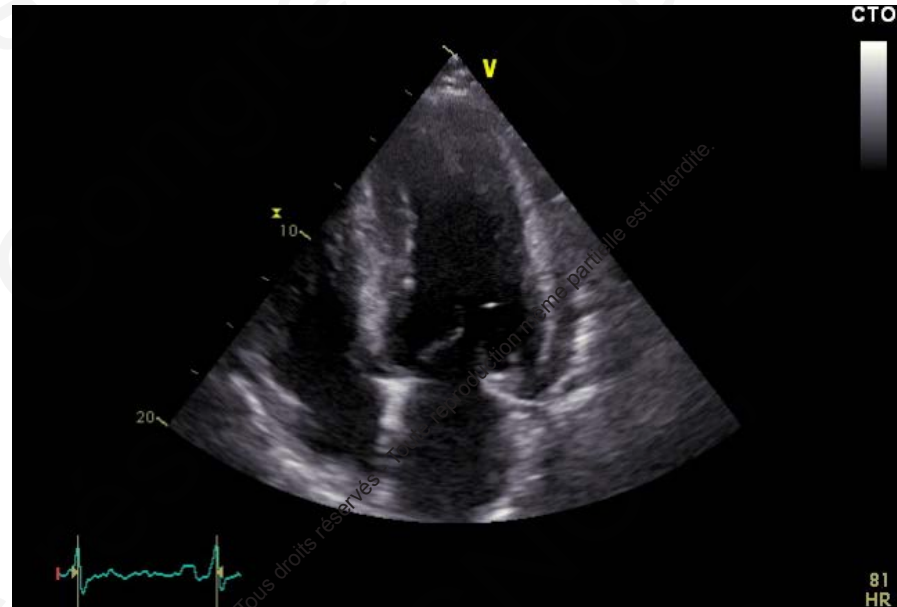
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CENTRAL ILLUSTRATION Cardiac Phenotypes in Secondary Hypertension

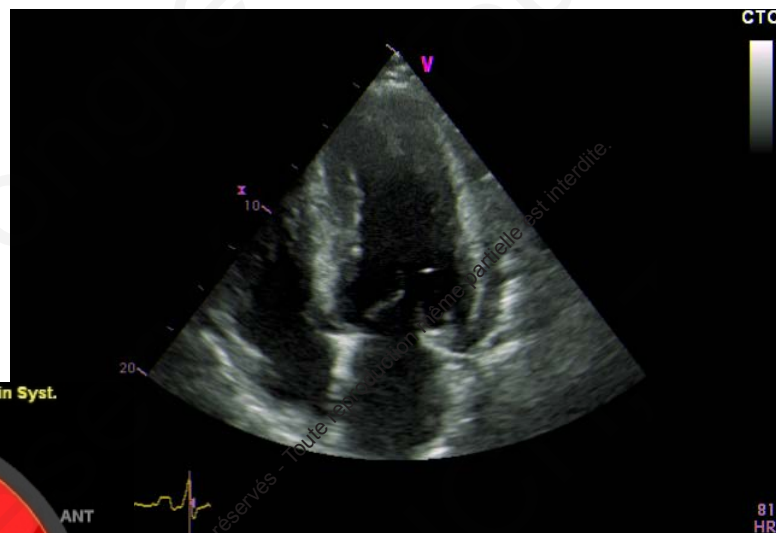
	Coarctation of Aorta	Renovascular Hypertension	Primary Aldosteronism	Pheochromocytoma /Paraganglioma	Cushing Syndrome
	<ul style="list-style-type: none"> Vascular injury Symptomatic aortic stenosis 	<ul style="list-style-type: none"> Angiotensin II Aldosterone Sodium/volume retention 	<ul style="list-style-type: none"> Aldosterone Sodium retention 	<ul style="list-style-type: none"> Catecholamines 	<ul style="list-style-type: none"> Cortisol
LVH	↑↑	↑ARAS ↔FMD	↑↑	↑	↑
Diastolic Function	↓	↑ARAS ↔FMD	↓↓	↔	↓
Systolic Function	↓ (advanced)	-	↓↓ strain	↓↓ strain	↓
In CMR	LVH, aortic dilatation	-	LVH, fibrosis, edema	fibrosis, edema	↔ fibrosis
Cardiac Events	CAD, HF	ARAS: CAD, AHF FMD: SCAD	CAD, HF, AF	TTS, hypertrophic/dilated cardiomyopathy, arrhythmias, ACS, AHF	CAD

Januszewicz A, et al. J Am Coll Cardiol. 2022;80(15):1480-1497.

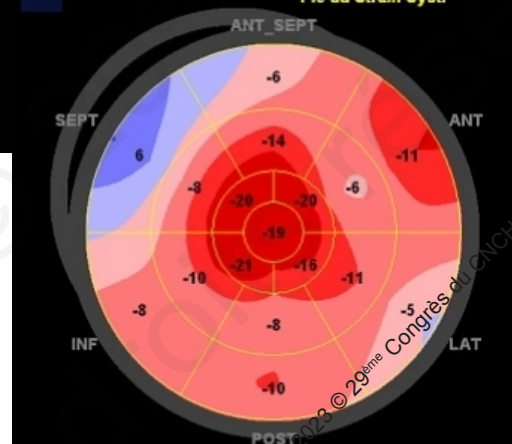
Comment utiliser la MVG dans la pratique ?



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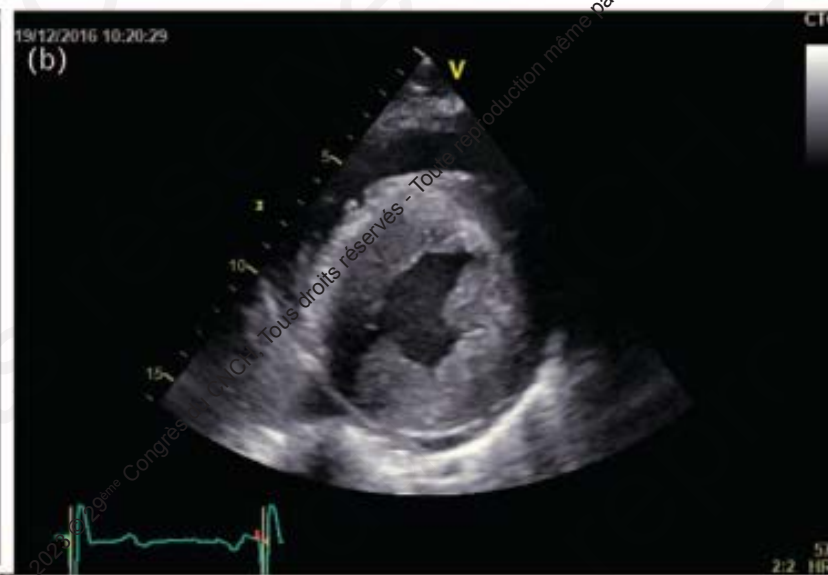
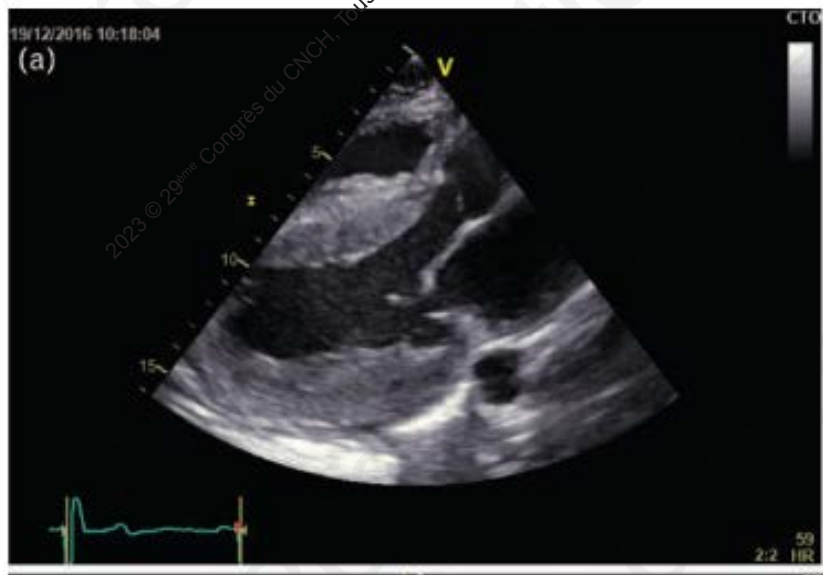
Pic du Strain Syst.



Comment utiliser la MVG dans la pratique ?

Malignant hypertension: diagnosis, treatment and prognosis with experience from the Bordeaux cohort

Sébastien Rubin^a, Antoine Cremer^b, Romain Boulestreau^b, Claire Rigothier^a
Sophie Kuntz^b, and Philippe Gosse^b



Comment utiliser la MVG dans la pratique ?

Pour ne pas rater une HTA maligne !

HTA sévère + atteinte ophtalmologique ou atteinte de 3 des 4 autres organes



ATTEINTE OPHTALMOLOGIQUE

Œdèmes papillaires, nodules cotonneux, exsudats secs, hémorragies

ATTEINTE RENALE

Insuffisance rénale d'allure aigue sans autre cause retrouvée

ATTEINTE CEREBRALE

PRES, AVC ischémique ou hémorragique, anomalies sévères de la substance blanche pour l'âge (leucoaraïose, micro-bleeds)

Élévation tensionnelle

Habituellement > 180/110

Inhabituelle, persistante, symptomatique

Altération de l'état général, soif, céphalées, vertiges, nausées, dyspnée, douleurs thoraciques

Tendance à l'Hypokaliémie

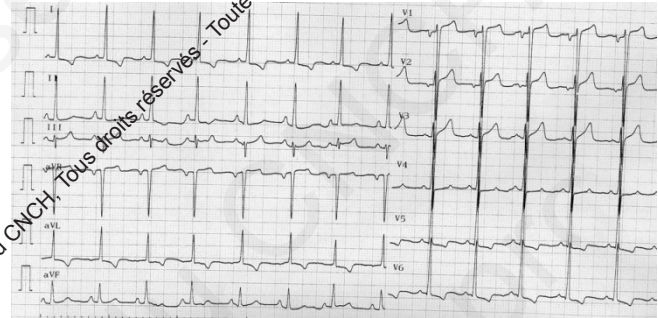
< 4 mmol/l

ATTEINTE CARDIAQUE

Hypertrophie ventriculaire gauche sévère sur l'ECG ou l'ETT

MICRO-ANGIOPATHIE THROMBOTIQUE

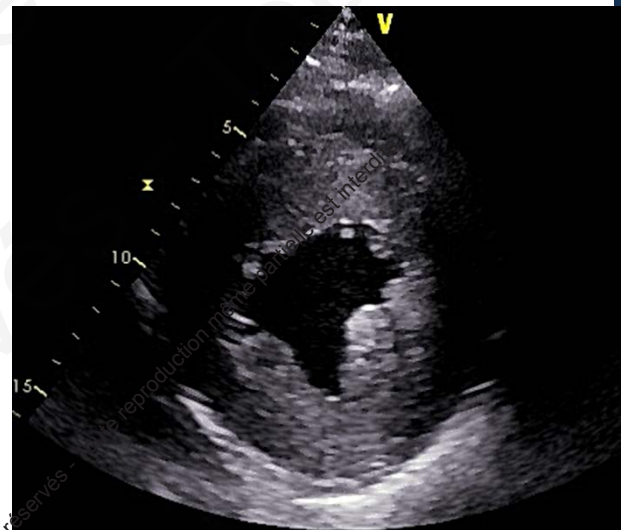
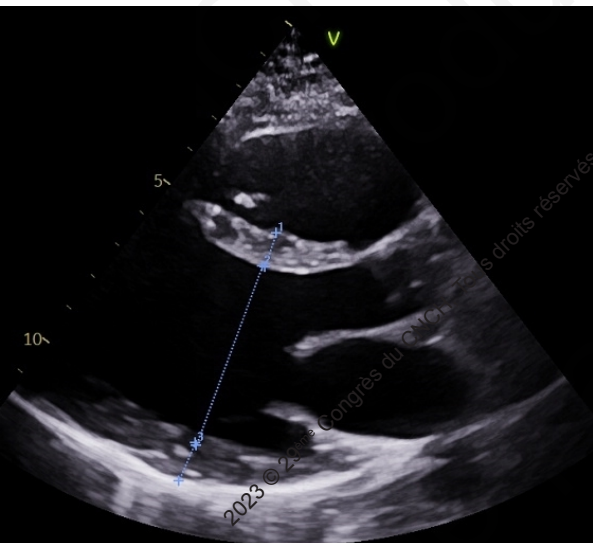
Haptoglobine effondrée, élévation des LDH et des schizocytes



+ Élévation de BNP et troponine

Conclusion

Comment utiliser la MVG dans la pratique ?



Haut risque CV



Ne pas manquer une HTA secondaire



Ne pas manquer une HTA maligne

Merci pour votre attention !

3



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