

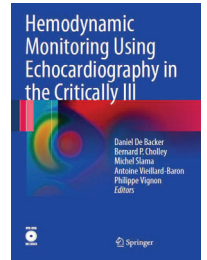
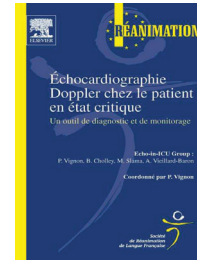
Syndrome aortique aigu

P. Vignon

Réanimation Polyvalente ; CIC 1435 - CHU Limoges



Conflit d'intérêt



Syndrome aortique aigu

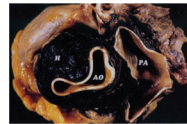
Risque d'extravasation

Présentation

Démarche diagnostique

Conclusion

- ❖ Terrain hypertendu
- ❖ Douleur caractéristique : douleur de début brutal, d'emblée maximale, à type de déchirure, le plus souvent thoracique antérieure mais parfois dorsale ou abdominale
- ❖ Signification : mise sous tension de la paroi aortique par une pathologie aiguë / chronique en poussée
- ❖ Risque commun : fissuration / rupture aortique mortelle.



DOULEUR +
EXTRAVASATION =
SYNDROME FISSURAIRE

CHIRURGIE URGENTE

Vilacosta I. J Am Coll Cardiol 1998 ; 32 : 83-9
Vilacosta I. Heart 2001 ; 85 : 365-8

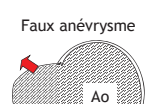
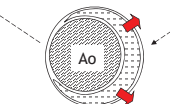
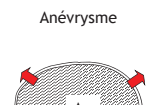
Syndrome aortique aigu

Risque d'extravasation

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Syndrome aortique aigu

Risque d'extravasation

Présentation

Démarche diagnostique

Conclusion

Research article

Dying from cardiac tamponade

Aravind Swaminathan¹, Karikalan Kandaswamy², Manish Powari¹ and Joseph Mathew^{*1}Address: ¹Department of Histopathology, Royal Cornwall Hospital, Truro, UK, TR1 1JJ and ²Department of Cardiology, Royal Cornwall Hospital, Truro, UK, TR1 1JJ

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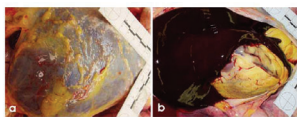
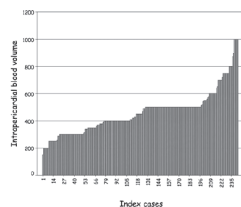


Figure 1
This image depicts a characteristic black pericardial distension, observed at postmortem, most often by containing an admixture of clotted and fresh blood.



World J Emerg Surg 2007

Tamponnade



Hémomédiastin & hémothorax



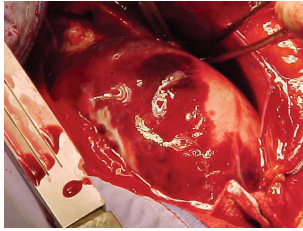
Hémopéritoine



Risque de mort subite
par tamponnade ou
rupture aortique :
AORTE ASCENDANTE



Signe de gravité = extravasation



- ❖ Péricarde & plèvre (& abdomen) : écho. transthoracique
 - ❖ Médiastinum: écho. transoesophagienne / TDM
- Syndrome aortique aigu + signe d'extravasation = bloc !!**



Dissection : aorte ascendante > descendante



Hématome intramural : aorte descendante > asc.



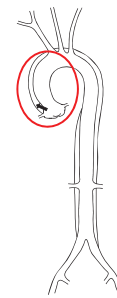
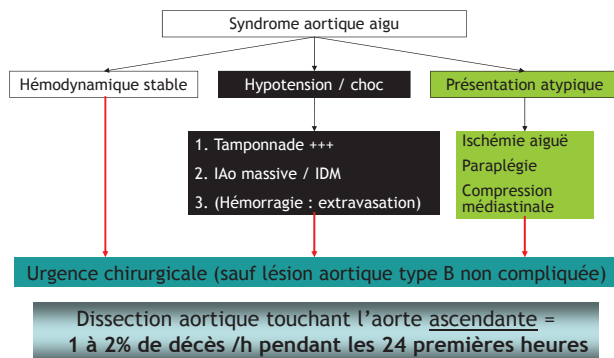
Ulcère athéromateux : aorte descendante > asc.



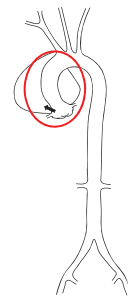
Anévrisme : aorte abdominale >> thoracique



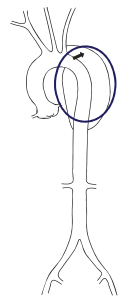
Faux-anévrisme : aorte descendante > asc.



De Bakey Type I



Type II



Type III

De Bakey

Stanford

Traitement

Type A

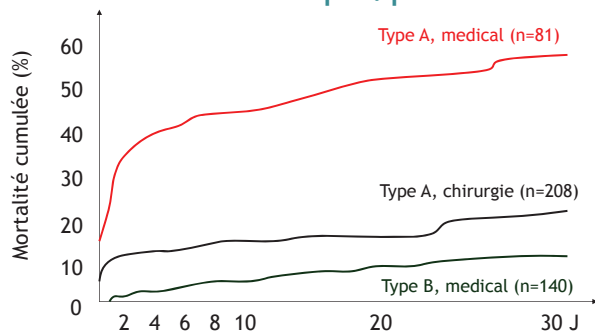
Chirurgie

Type B

Medical



Dissection aortique : pronostic



N=464	Type A, No (%)	Type B, No (%)	P value (A vs B)
Hypertension (PAS ≥ 150 mmHg)	99 (36)	122 (70)	< 0,001
Normotension (PAS : 100-149 mmHg)	110 (40)	46 (26)	
Hypotension (PAS < 100 mmHg)	32 (12)	4 (2)	
Choc / tamponnade	36 (13)	2 (1)	



Hagan PG et al. JAMA 2000; 283: 897-905

Simple Risk Models to Predict Surgical Mortality in Acute Type A Aortic Dissection: The International Registry of Acute Aortic Dissection Score

Vincenzo Rappelli MD, Saeed Timarachi MD, Kim A. Eagle MD, Christoph A. Nienaber MD, Jae K. Oh MD, Eduardo Bossone MD, Truls Myrnes MD, Giuseppe M. Sangiorgi MD, Carlo De Vincentis MD, Joanna V. Cooper MS, Jianming Fang MD, MS, Dean Smith PhD, Thomas Tsai MD, Arun Raghupathy MD, Rosella Fattori MD, Udo Sechtem MD, Michael G. Dieb MD, MD, PhD, and the International Registry of Acute Aortic Dissection (IRAD) Investigators

Table 5. Preoperative Prediction Model

Variable	Overall Type A (%)	% Among Survivors	% Among Death	Score Coefficient	Assigned p Value	Death OR (95% CI)
Age ≥ 70 y	27.3	24.1	37.4	0.68	0.7	1.98 (1.19-3.29)
History aortic valve replacement	4.5	3.8	6.6	1.44	1.5	<0.01 4.21 (1.56-11.30)
Presenting hypertension, shock	28.8	22.4	49.0	1.17	1.2	<0.01 3.23 (1.95-5.37)
Migrating chest pain	13.8	12.1	19.3	0.88	0.9	<0.01 2.42 (1.32-4.45)
Preoperative cardiac tamponade	15.5	11.7	28.2	0.97	1.0	<0.01 2.65 (1.48-4.75)
Any pulse deficit	28.6	25.7	37.8	0.56	0.6	0.03 1.75 (1.06-2.89)
ECG infarct, new Q waves, ST elevation, or ischemia	21.1	18.7	29.3	0.57	0.6	0.04 1.76 (1.02-3.03)

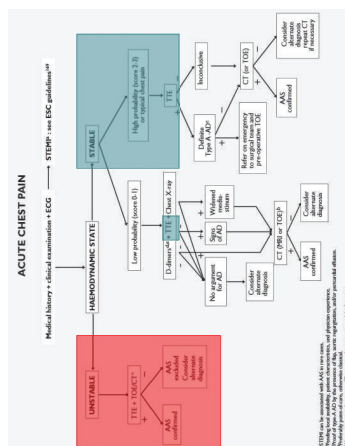
CI = confidence interval. ECG = electrocardiogram. OR = odds ratio.

(Ann Thorac Surg 2007;83:55-61)

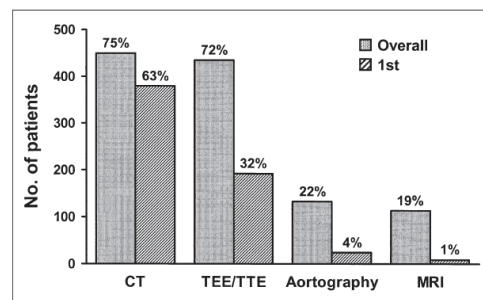
ESC GUIDELINES

European Heart Journal (2014) 35, 2975-2996
doi:10.1093/eurheartj/ehu208

2014 ESC Guidelines on the diagnosis and treatment of aortic diseases



Notes: 1. In patients with aortic dissection, the presence of aortic regurgitation, aortic aneurysm, or aortic dissection should be considered. 2. In patients with aortic aneurysm, the presence of aortic regurgitation, aortic aneurysm, or aortic dissection should be considered. 3. In patients with aortic dissection, the presence of aortic regurgitation, aortic aneurysm, or aortic dissection should be considered.



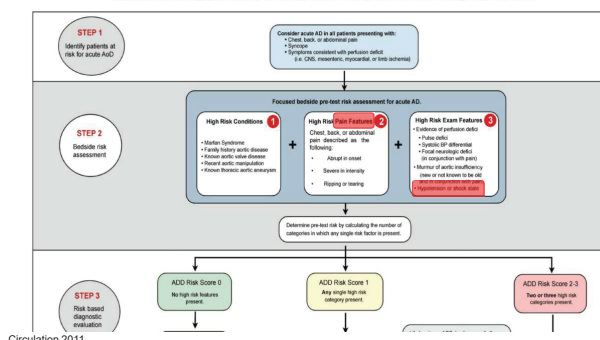
> 2/3 of patients ont > 2 techniques d'imagerie

Moore AG et al. Am J Cardiol 2002; 89: 1235-8

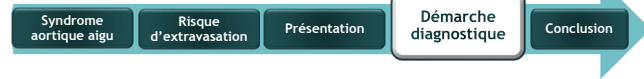
Sensitivity of the Aortic Dissection Detection Risk Score, a Novel Guideline-Based Tool for Identification of Acute Aortic Dissection at Initial Presentation

Results From the International Registry of Acute Aortic Dissection

Adam M. Rogers, MD; Luke K. Hermann, MD; Anna M. Boother, MD; Christoph A. Nienaber, MD; David M. Williams, MD; Ella A. Kazerooni, MD; James B. Froehlich, MD; Patrick T. O'Gara, MD; Daniel G. Montgomery, BS; Joanna V. Cooper, MS; Kevin M. Harris, MD; Stuart Hutchison, MD; Arturo Evangelista, MD; Eric M. Isselbacher, MD; Kim A. Eagle, MD; on behalf of the IRAD Investigators

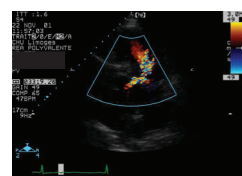


Circulation 2011



Syndrome aortique aigu & insuffisance aortique : éliminer une dissection aortique proximale.

Etat de choc : ETT en première intention



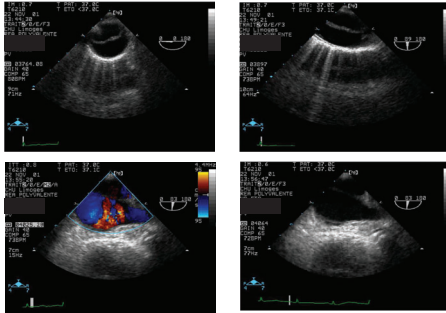
Dissection aortique aiguë

- ❖ **Flap intimal** (piège : artefact linéaire) :
 - flap : image linéaire traversant la lumière aortique
 - sépare **vrai et faux chenal** & extension variable (type A ou B)
 - valeur des **calcifications** (signent l'origine intimale)
 - porte(s) entrée / réentrée
- ❖ Signes indirects :
 - dilatation (régulière) de l'aorte
 - insuffisance aortique (aiguë / non connue)
 - épanchement péricardique (hémopéricarde)
 - anomalie contraction segmentaire (dissection coronaire)
 - hémomédiastin, hémothorax gauche.

TYPE A (± CHOC)



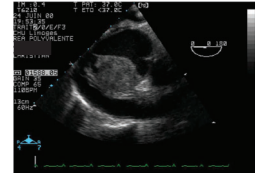
ETO en 2^{ème} intention au bloc opératoire



Hématome de paroi (intrapariétal) aigu

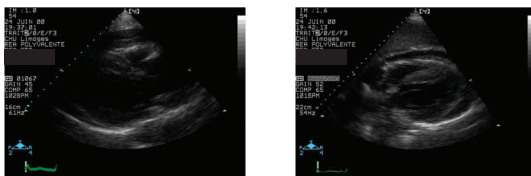
- Epaissement en croissant ou circonférentiel de la paroi aortique (> 7 mm) : « granité » ou hétérogène
- Extension variable (idem dissection)
- Intima refoulée (calcifications)
- Elargissement (régulier) de l'aorte (inconstant)
- Signes d'extravasation possibles :
 - Hémopéricarde
 - Hémomédiastin
 - Hémothorax
- Pas porte entrée, non circulant.

Mohr-Kahaly S et al. J Am Coll Cardiol 1994 ; 23 : 658-64



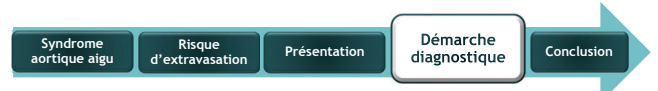
Hématome de paroi (intrapariétal) aigu

ETT immédiate aux urgences



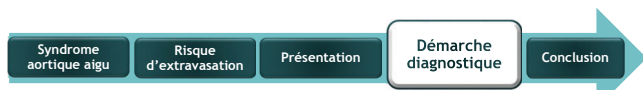
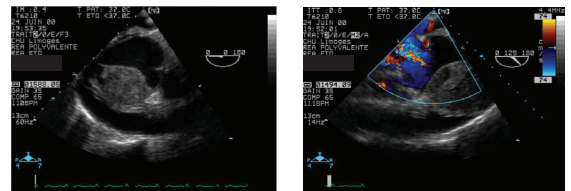
Vue parasternale

Vue sous-costale

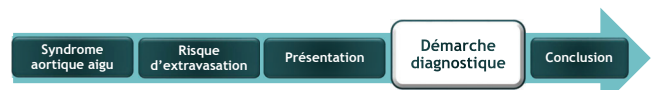
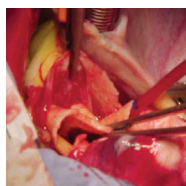


Hématome de paroi (intrapariétal) aigu

ETO au bloc opératoire chez un patient anesthésié

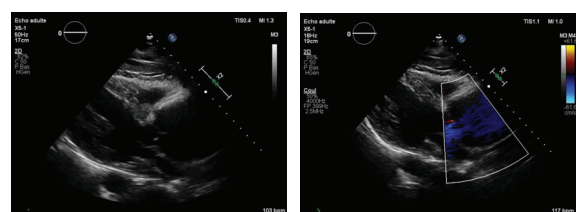


Hématome de paroi (intrapariétal) aigu



Fissuration d'anévrisme de l'aorte ascendante

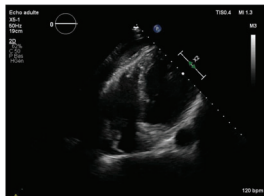
ETT aux Urgences car douleur thoracique + hypotension





Fissuration d'anévrisme de l'aorte ascendante

ETT aux Urgences car douleur thoracique + hypotension



Syndrome aortique aigu + hypotension / choc = urgence vitale

- ❖ But # 1 : diagnostic précoce
- ❖ But # 2 : identifier les signes d'extravasation en ETT
- ❖ But # 3 : chirurgie immédiate si aorte ascendante (& compléter les informations par une ETO au bloc).