

Interprétation des ECG douteux

PR court et Préexcitation Ventriculaire



39^{ème} SÉMINAIRE DE CARDIOLOGIE CONGÉNITALE ET PÉDIATRIQUE

Espace PR

- Vitesse de conduction
 - Myocarde atrial: 0.8m/sec
 - Nœud AV: 0.5m/sec
 - His-Purkinje: 1-2m/s
 - Myocarde ventriculaire: 0,8m/sec

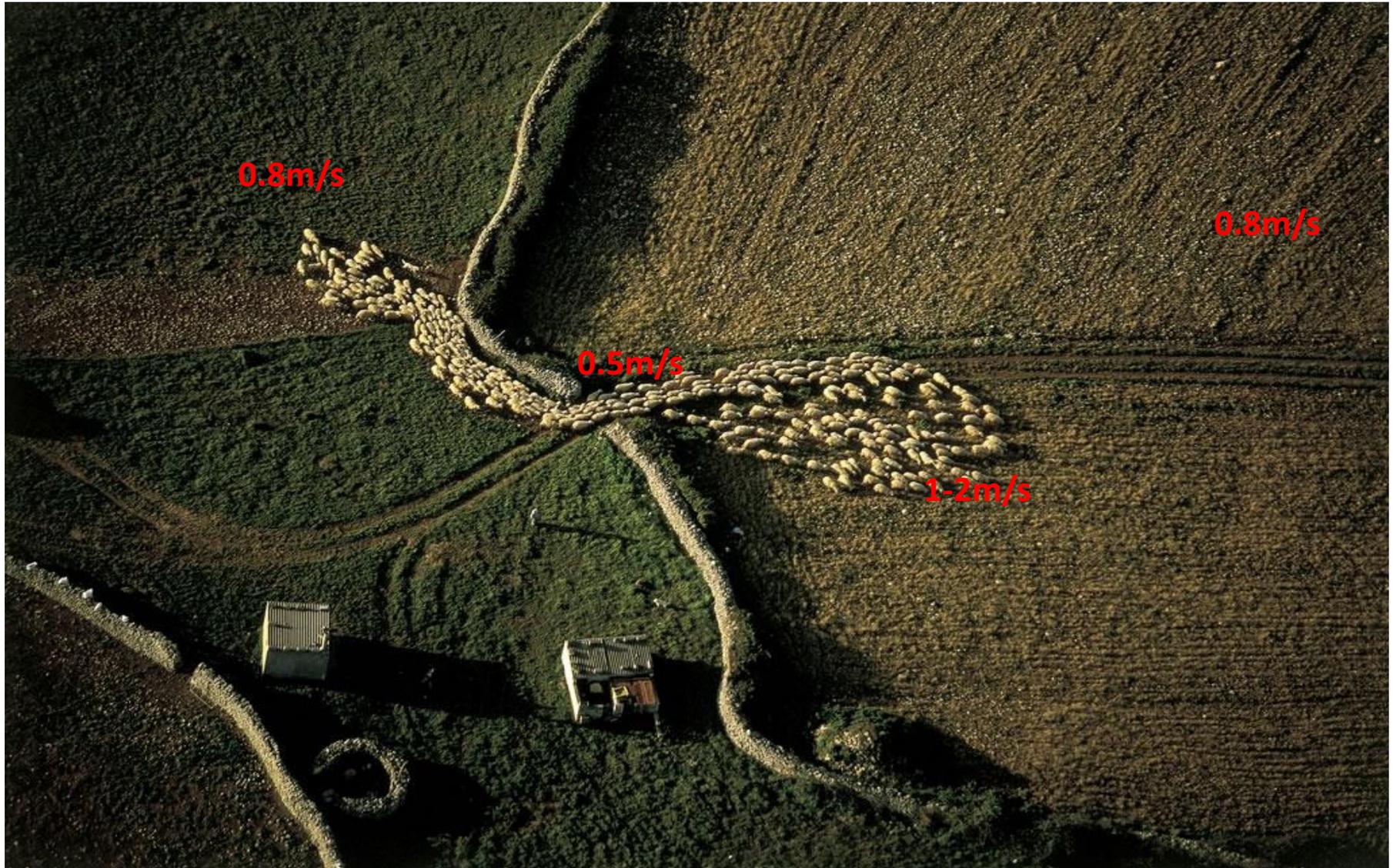
=> PR normal

- Avant 5 ans: 100-120 ms
- Après 5 ans: 120-140 ms

=> PR court < 120 ms



Photo Yann Arthus Bertrand



0.8m/s

0.8m/s

0.5m/s

1-2m/s



0.8m/s

0.8m/s

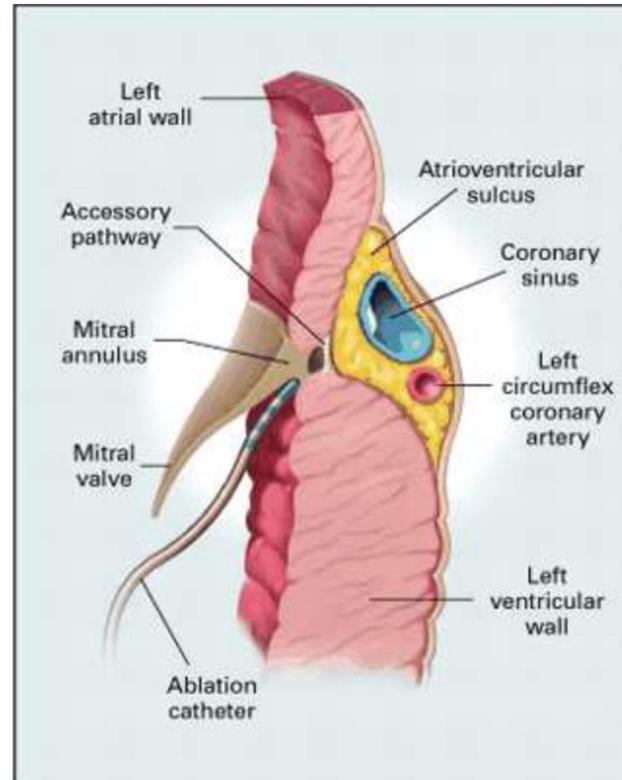
0.5m/s

1-2m/s

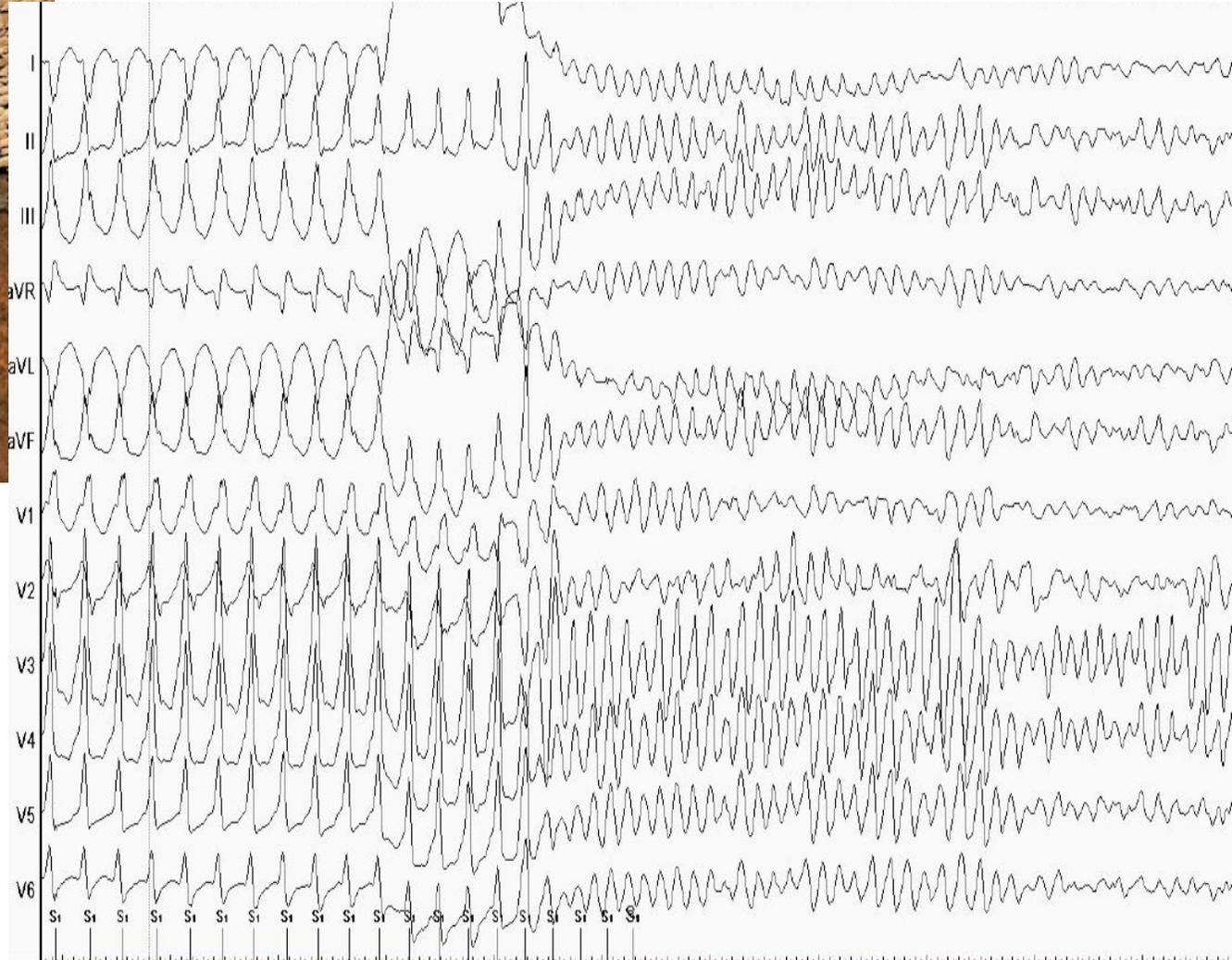
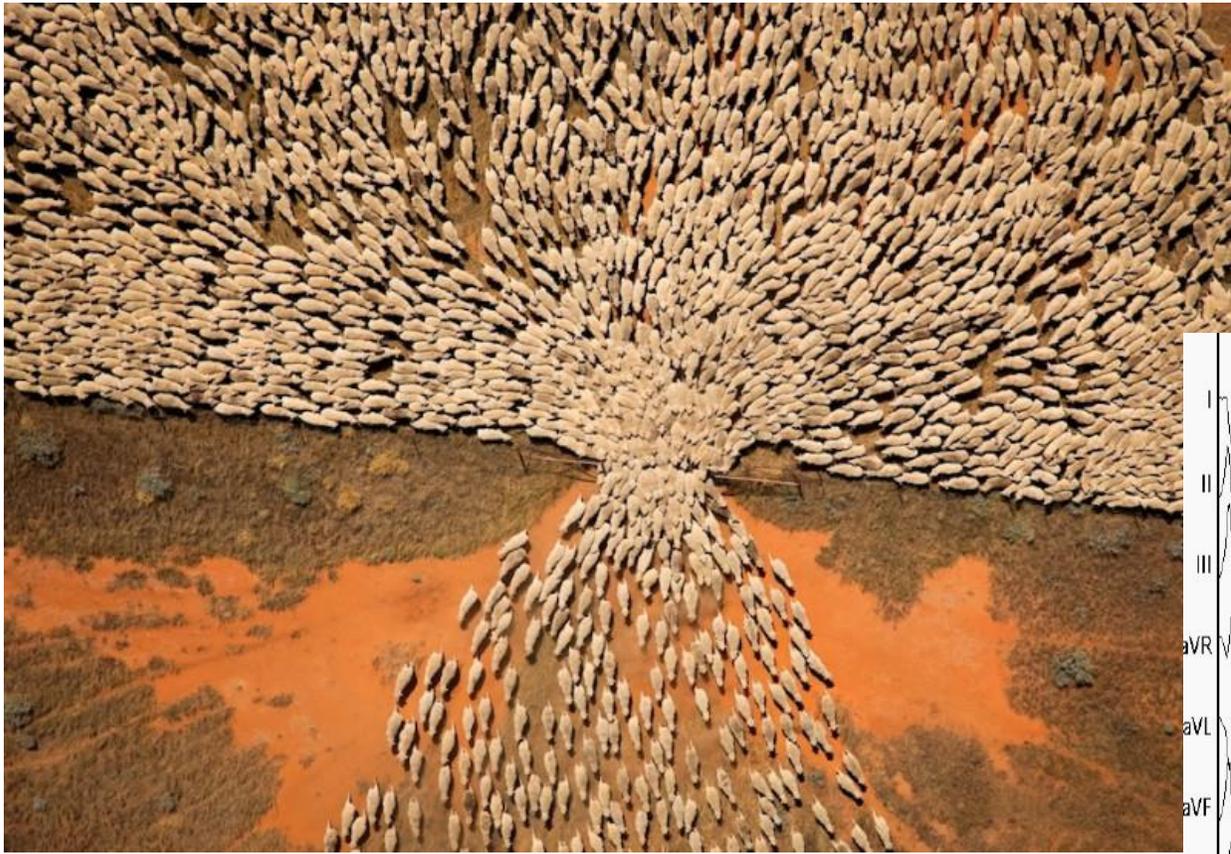
0.8m/s

PR court + onde Delta

- Syndrome de Wolff-Parkinson-White
 - Si symptôme
- Préexcitation ventriculaire ou « WPW asymptomatique »
 - Découverte fortuite
 - Pas de symptôme

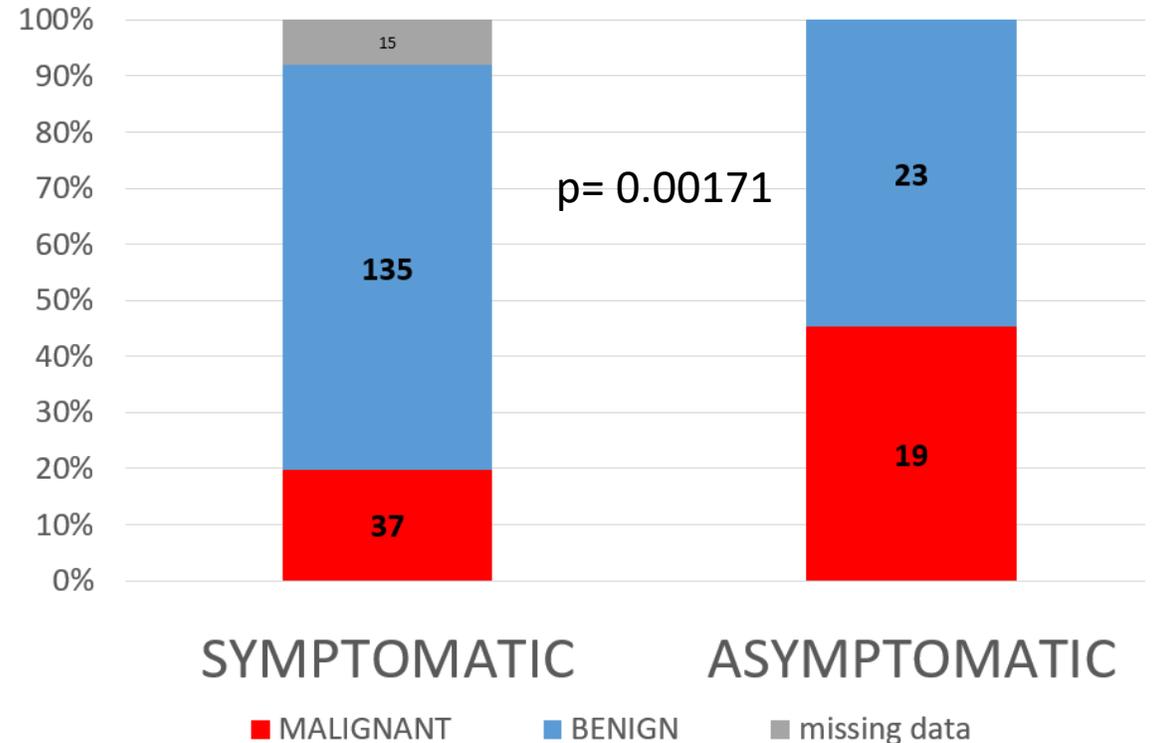






Risque de Mort Subite / Préexcitation ventriculaire

- Risque de FA/PEV
 - Supérieur à la population pédiatrique en général
 - Après 10 ans
- Risque de mort subite/PEV
 - 1.93 (95% CI, 0.57-4.41) pour 1000 patient-année (1)
 - 0.86 chez l'adulte
 - Moins d'événement après 30 ans
 - Premier symptôme pour 65% des cas (2)



Données locales sur 229 VA: 187 WPW et 47 PEV

Life-Threatening Event Risk in Children With Wolff-Parkinson-White Syndrome

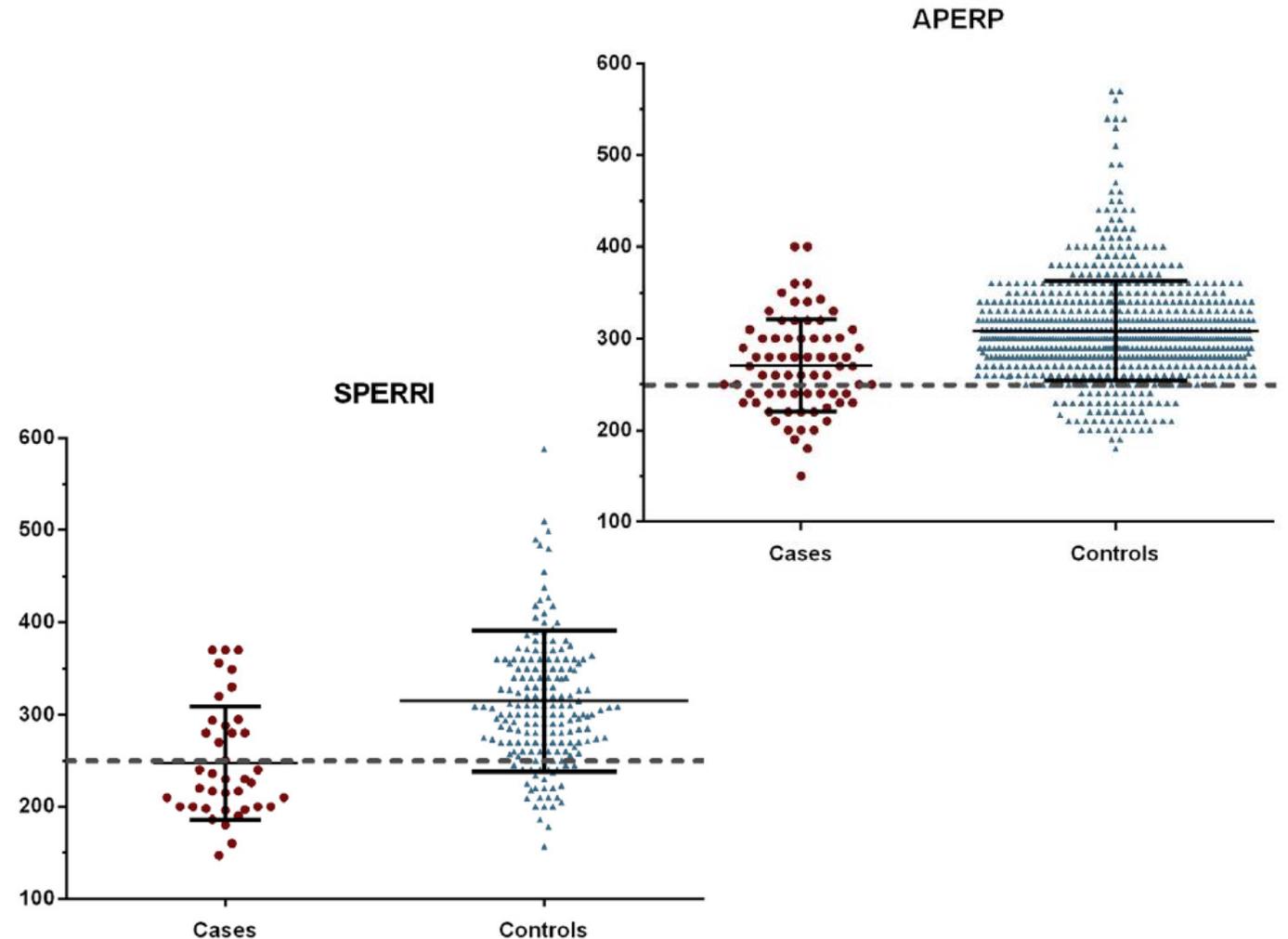
A Multicenter International Study

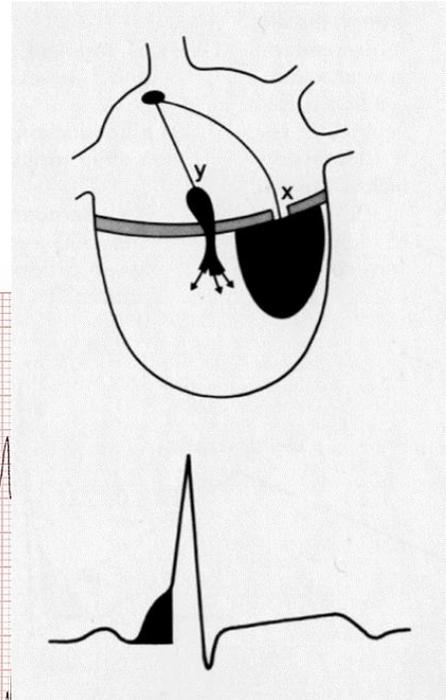
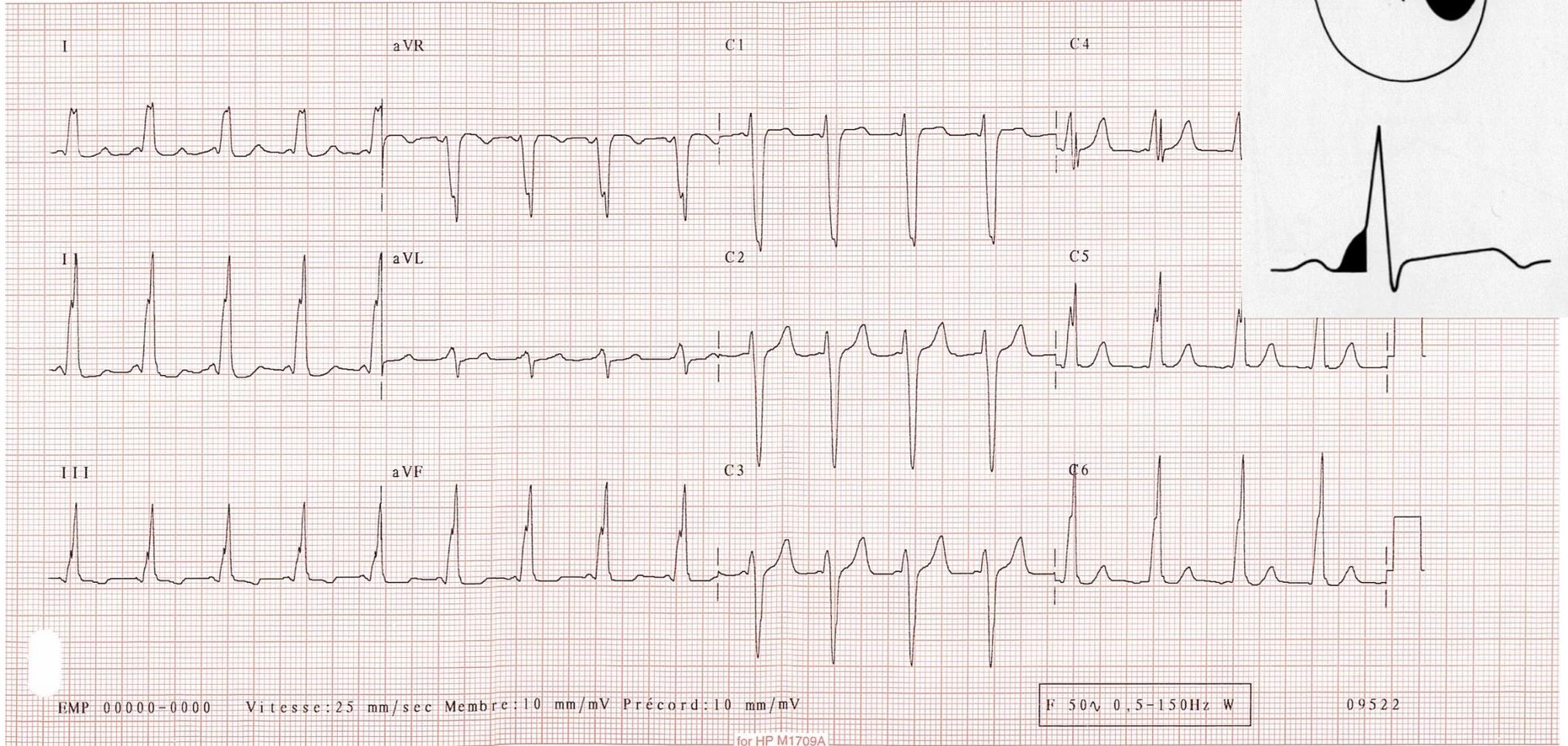
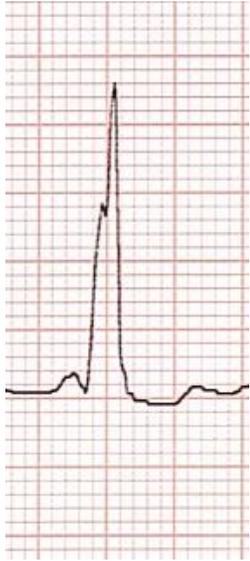
Susan P. Etheridge, MD,^a Carolina A. Escudero, MD,^b Andrew D. Blaurock, MD,^c Ian H. Law, MD,^d Brynne E. Dechert-Crooks, RN, MSN,^e Elizabeth A. Stephenson, MD,^f Anne M. Dubin, MD,^g Scott R. Ceresnak, MD,^g Kara S. Motonaga, MD,^g Jonathan R. Skinner, MBChB, MD,^h Luciana D. Marcondes, MD,^h James C. Perry, MD,ⁱ Kathryn K. Collins, MD,^j Stephen P. Seslar, MD,^k Michel Cabrera, MD,^l Orhan Uzun, MD,^m Bryan C. Cannon, MD,ⁿ Peter F. Aziz, MD,^o Peter Kubuš, MD,^p Ronn E. Tanel, MD,^q Santiago O. Valdes, MD,^r Sara Sami, MD,^r Naomi J. Kertesz, MD,^s Jennifer Maldonado, MBA, CCRP,^d Christopher Erickson, MD,^t Jeremy P. Moore, MD,^u Hiroko Asakai, MD,^f LuAnn Mill, RN, BSN,^t Mark Abcede, MBA, CCRP,ⁱ Zebulun Z. Spector, MD,^k Shaji Menon, MD,^a Mark Shwayder, MD,^a David J. Bradley, MD,^e Mitchell I. Cohen, MD,^v Shubhayan Sanatani, MD^w

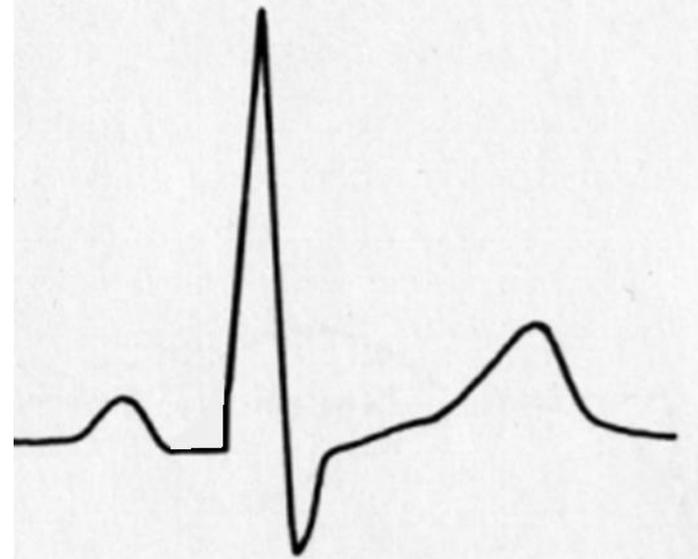
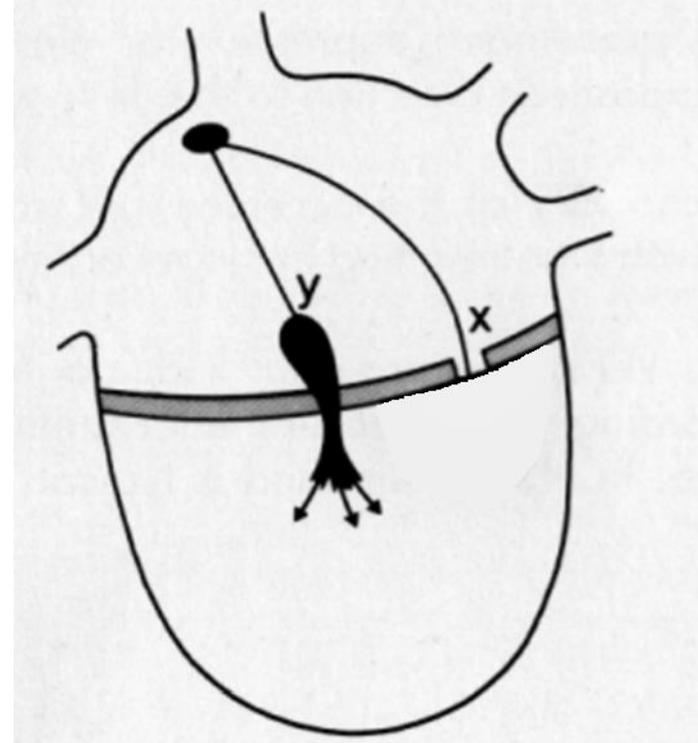
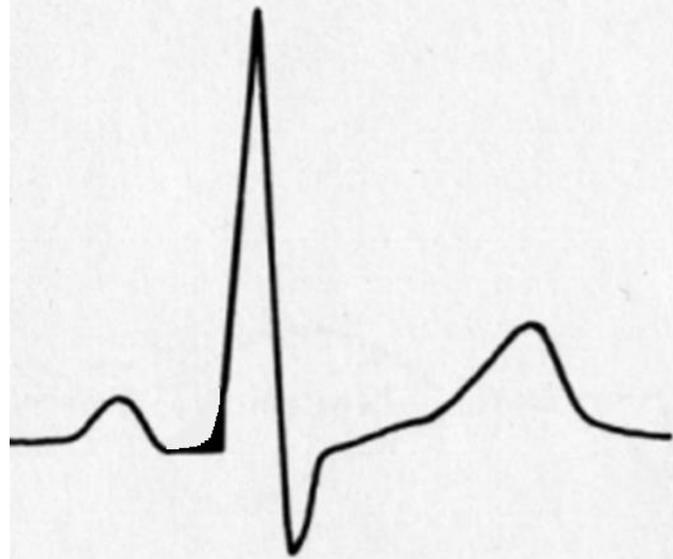
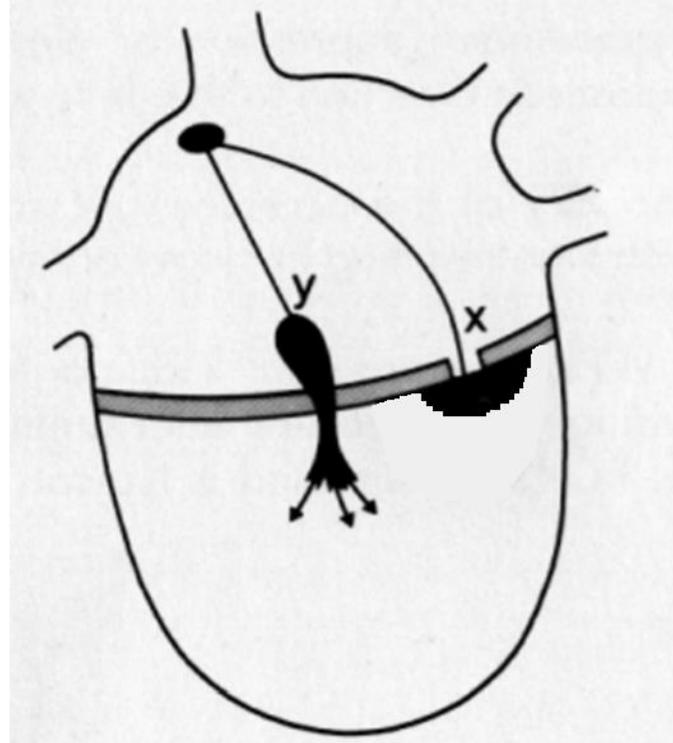
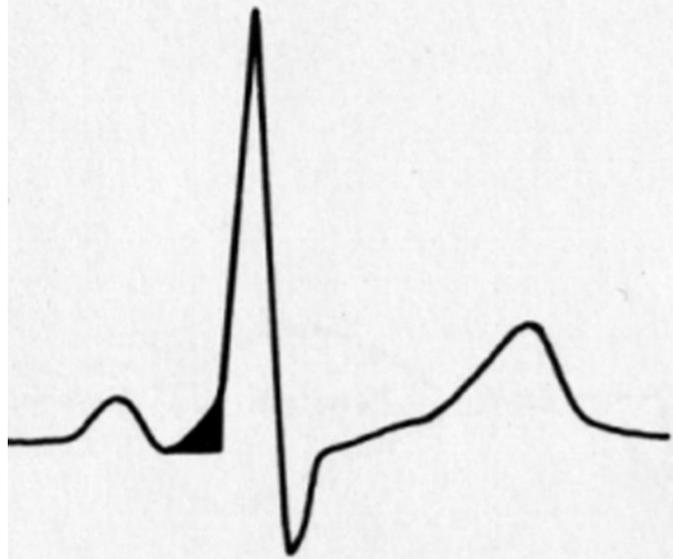
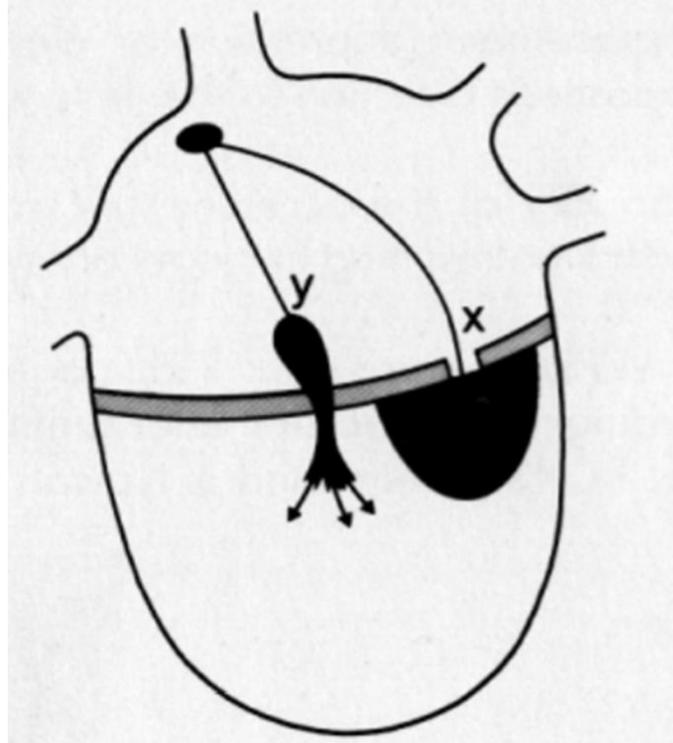
TABLE 2 Clinical Characteristics of Case Subjects (N = 96)

Age at LTE (yrs)	14.1 ± 3.9 (range 0.4 months-21 yrs)
Known WPW	40 (42)
LTE as presenting symptom	62 (65)
LTE diagnosis	
Pre-excited atrial fibrillation	47 (49)
Aborted sudden death	43 (45)
Sudden death	6 (6)
Activity at time of LTE	
Rest	37 (39)
Active, noncompetitive	33 (34)
Active, competitive	10 (10)
Unknown	16 (17)
Outcome of the LTE	
Full/near full recovery	82 (85)
Recovery with neurological injury	5 (5)
Death	9 (9)

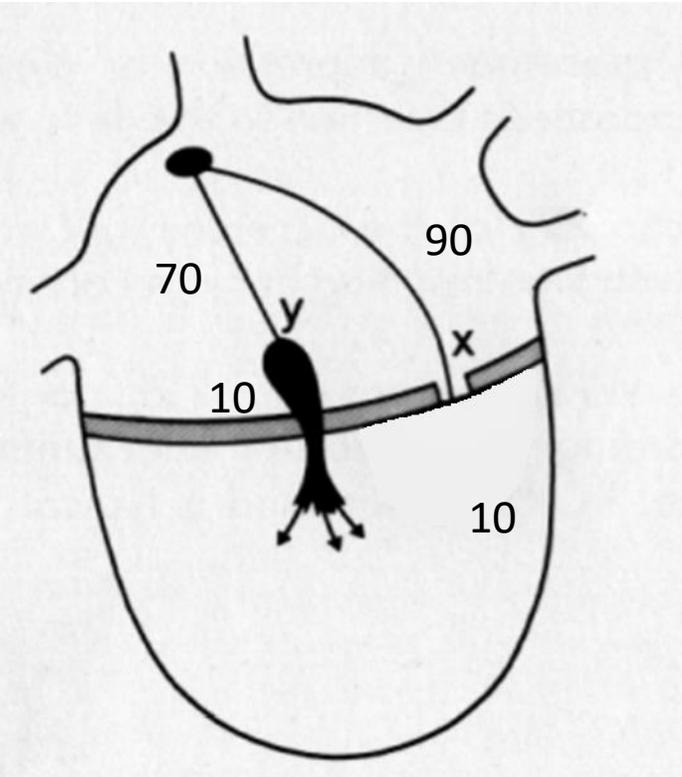
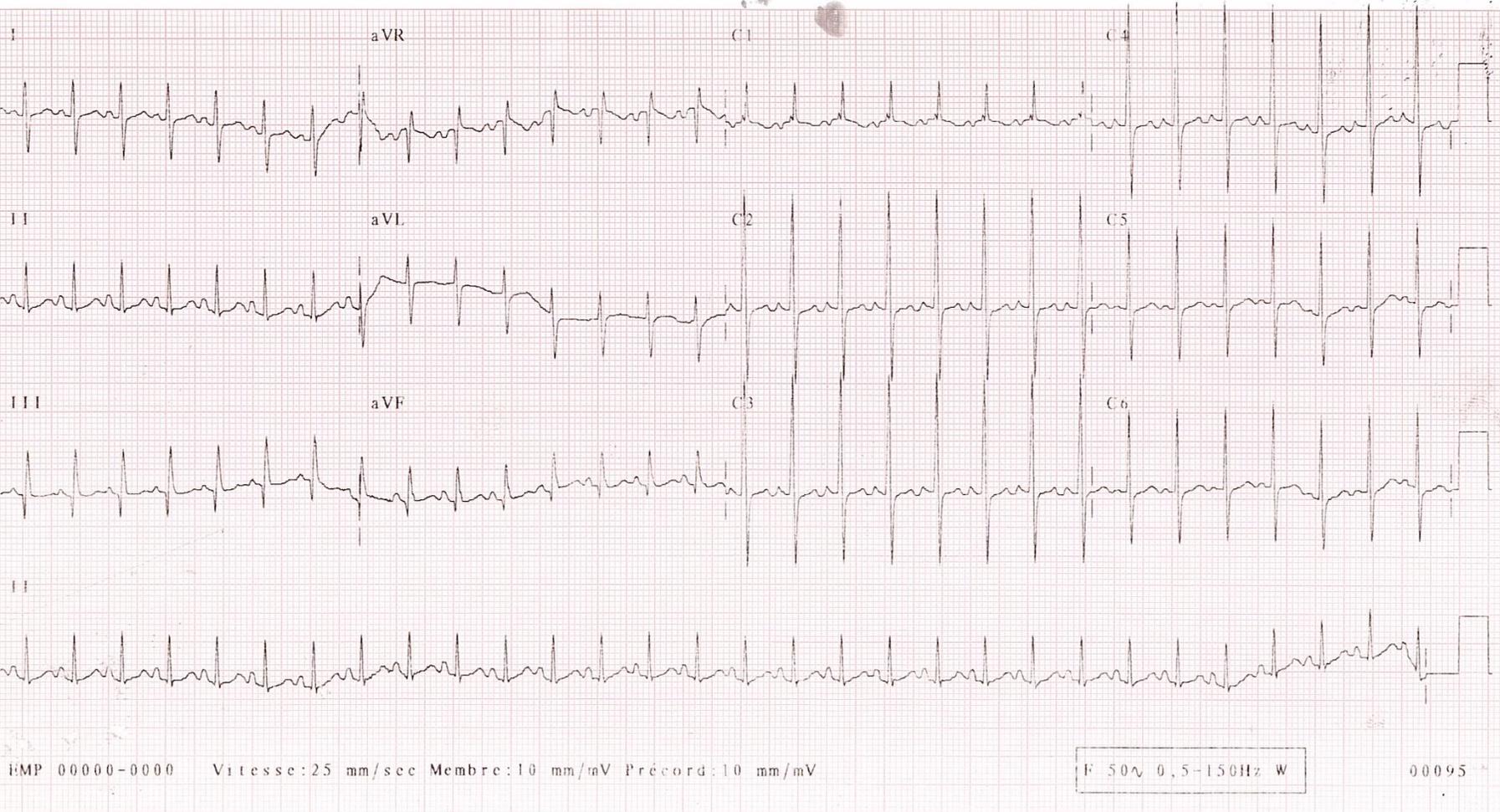
Values are mean ± SD or n (%).
Abbreviations as in Table 1.





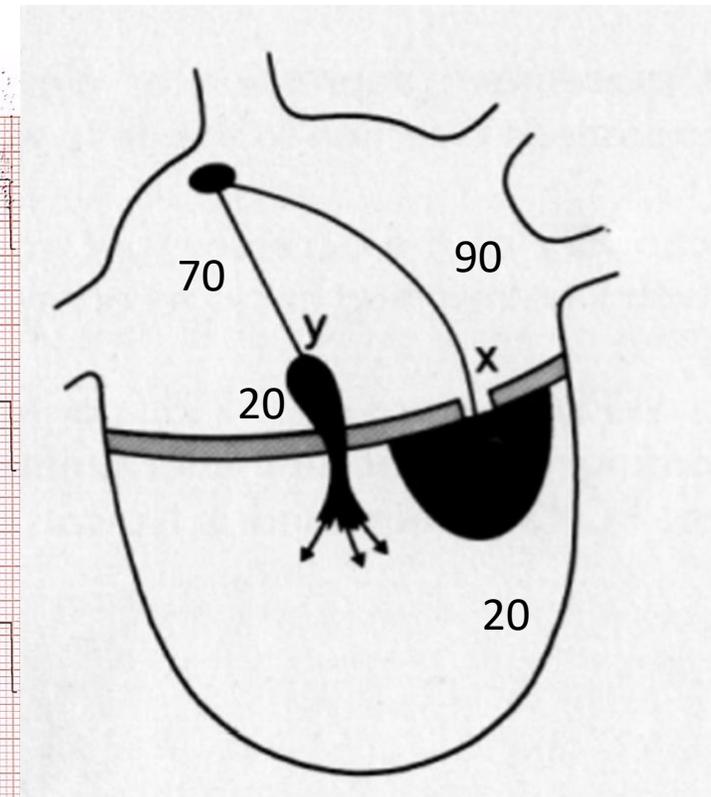
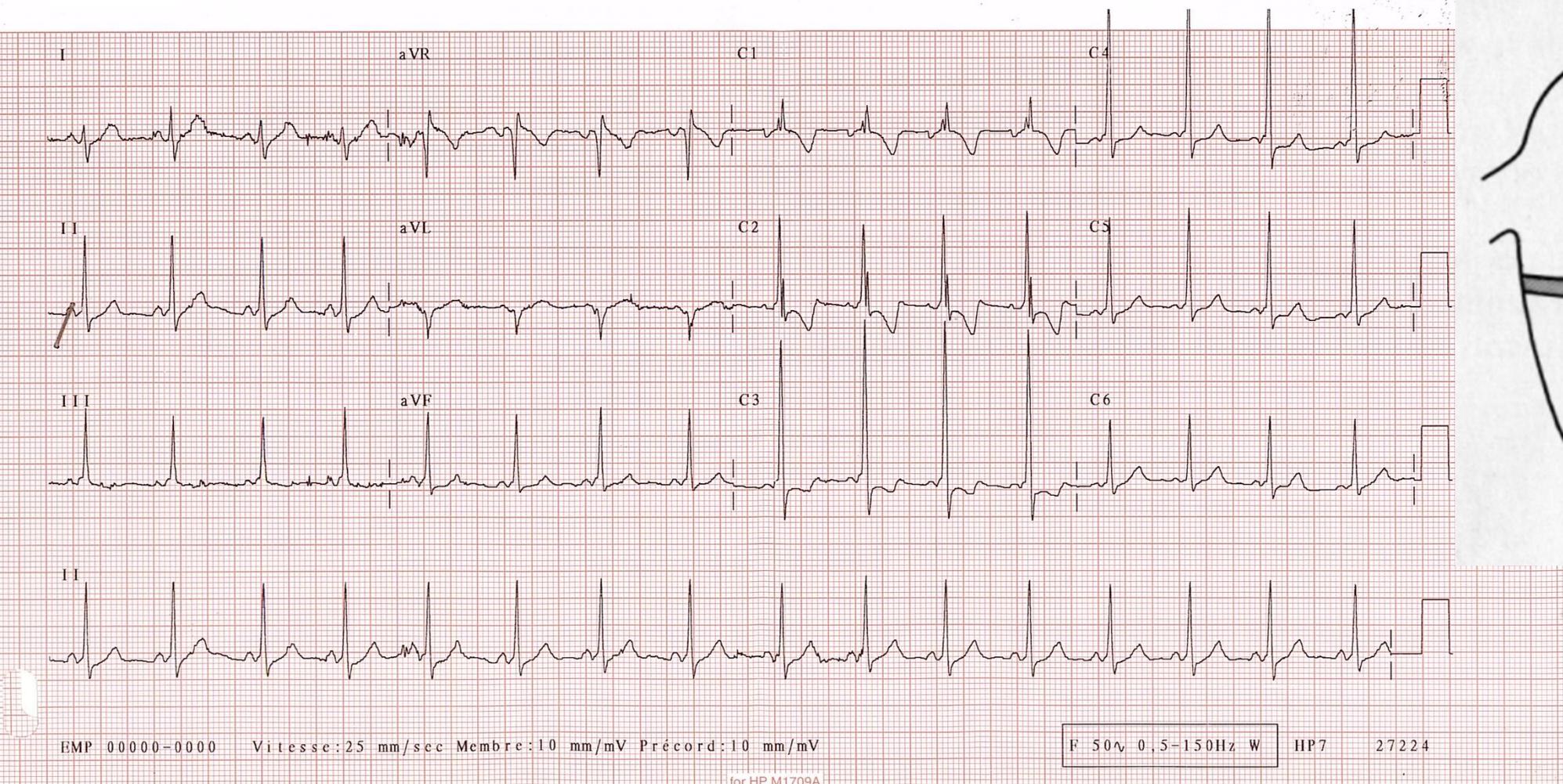


ECG à la naissance



Délai d'activation en ms

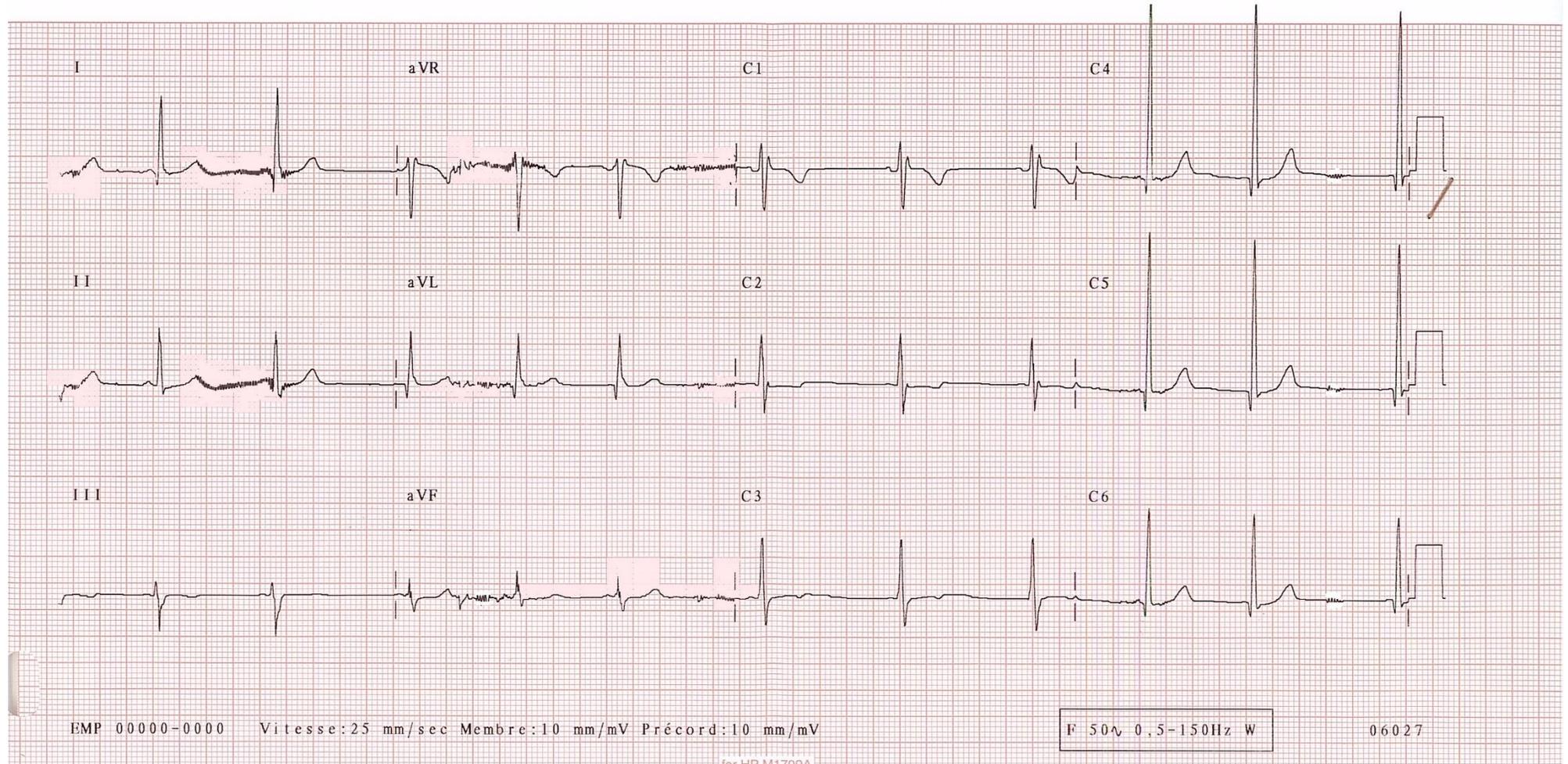
Même enfant quelques années plus tard



Md:
Dg:

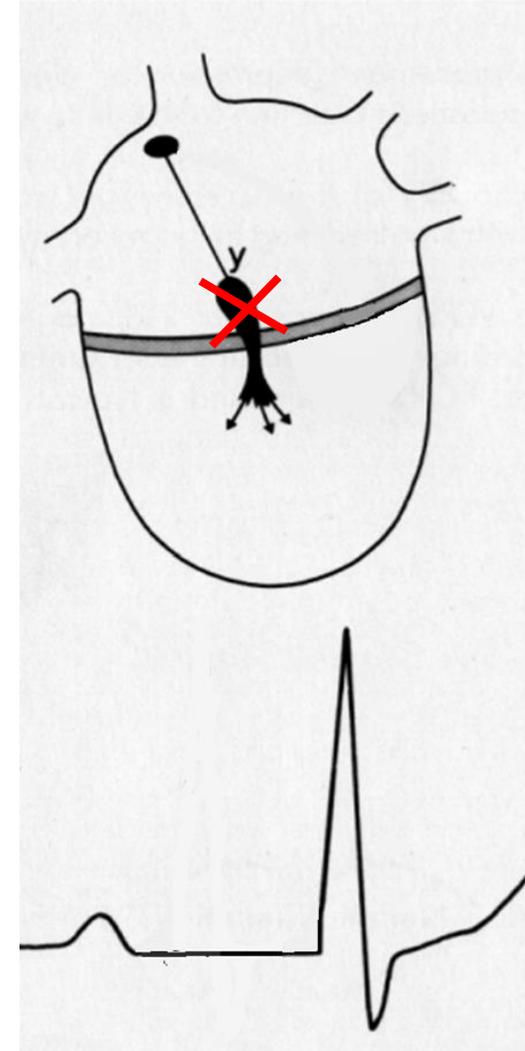
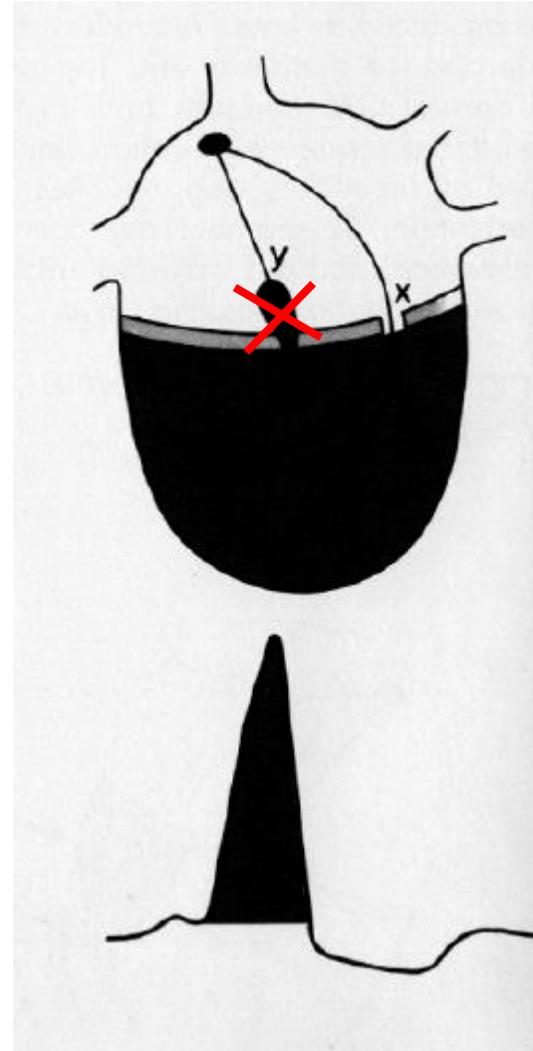
Serv:
Chbe:
Opér:

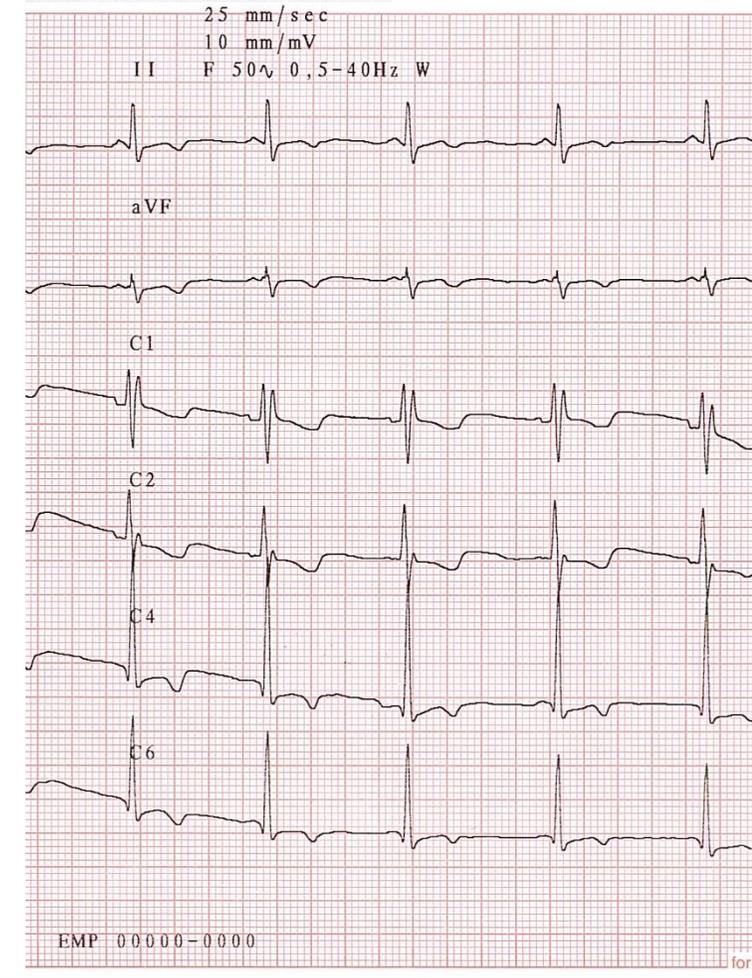
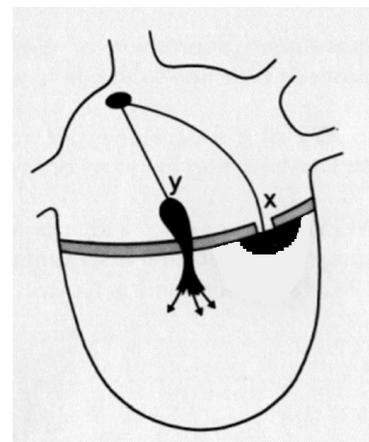
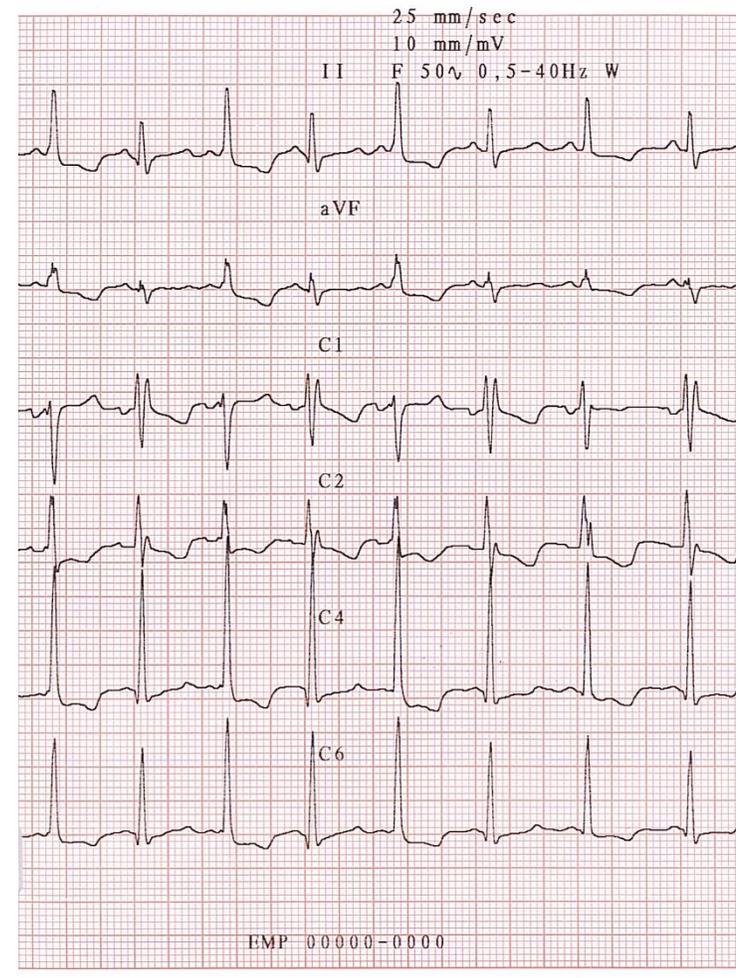
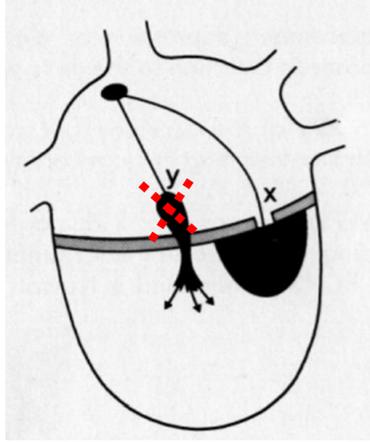
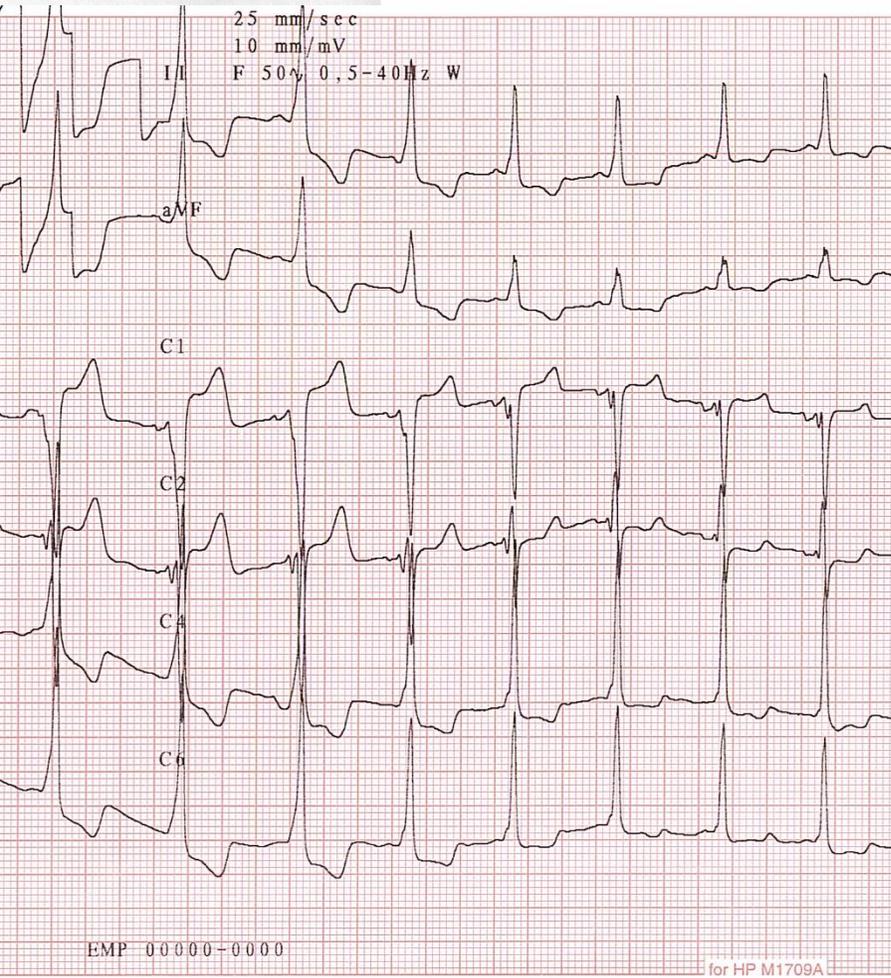
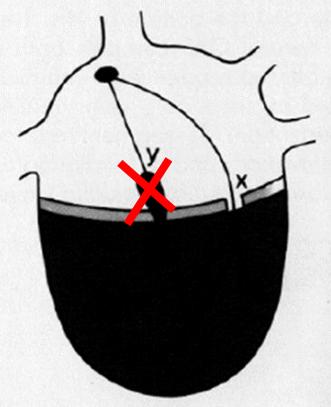
Demandé par :



En cas de doute pour PEV devant PR court

- Ralentir ou bloquer la conduction dans le NAV
 - Manœuvre vagale
 - Reflexe Occulo Cardiaque
 - Injection d'Adénosine





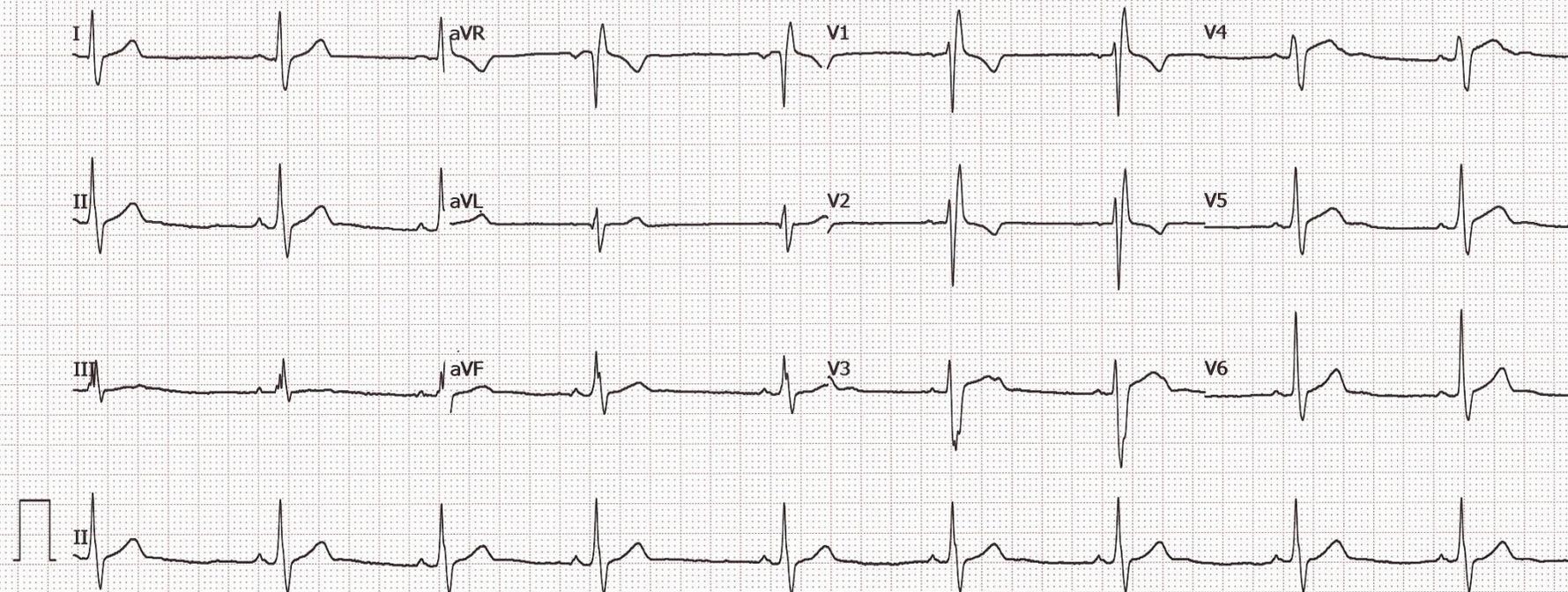
Localité:
Numéro d'ordre:
Visite:
Indication:
Médicament 1:
Médicament 2:
Médicament 3:

Chambre:

53/min
--/-- mmHg

Utilisat.:
Méd. requérant:
Méd. référant:
Méd. soignant:

QRS : 122 ms
QT / QTcBaz : 414 / 388 ms
PQ : 126 ms
P : 88 ms
RR/PP : 1132 / 1132 ms
P/QRS/T : 56 / 63 / 40 degrés



Localité:
Numéro d'ordre:
Visit:
Indication:
Médicament 1:
Médicament 2:
Médicament 3:

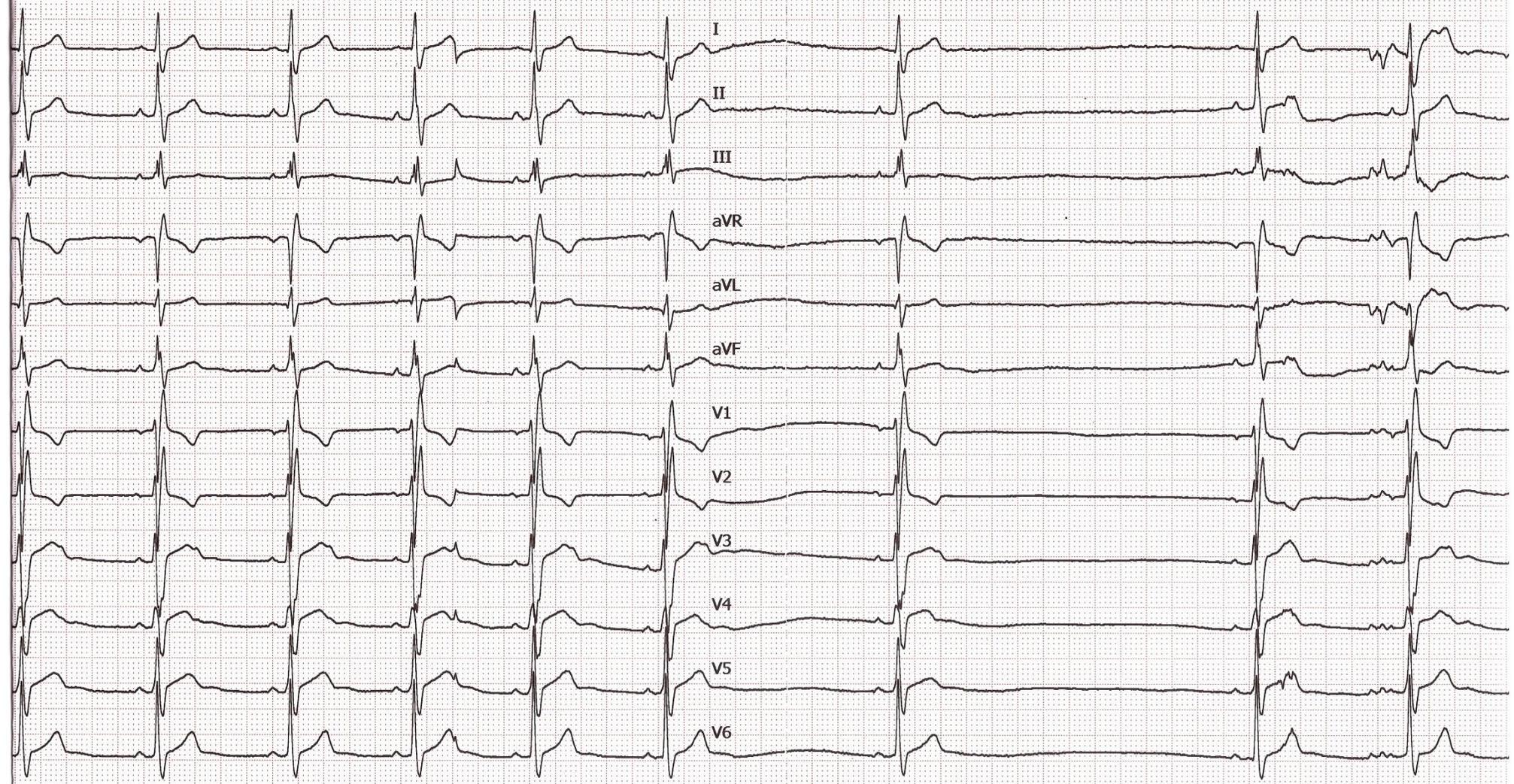
Chambre:

53/min

06.03.2018 11:13:16

N

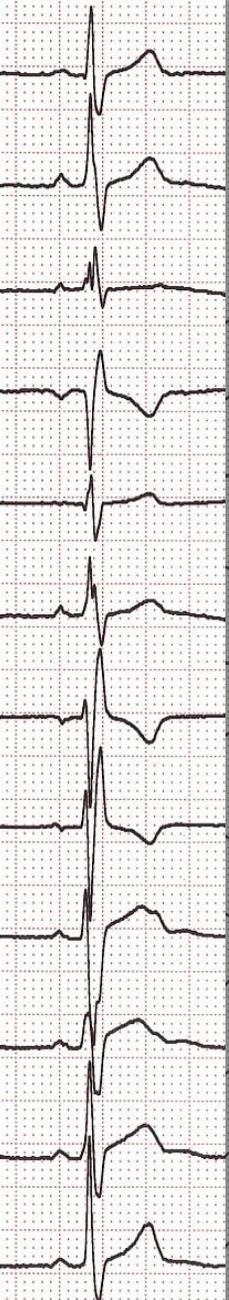
Utilisat.:
Méd. requérant:
Méd. référant:
Méd. soignant:



Localité:
Numéro d'ordre:
Visite:
Indication:
Médicament 1:
Médicament 2:
Médicament 3:

Chambre:

53



Utilisat.:
Méd. requérant:
Méd. référant:
Méd. soignant:



13:16

N

Md:

Chbe:

Dg:

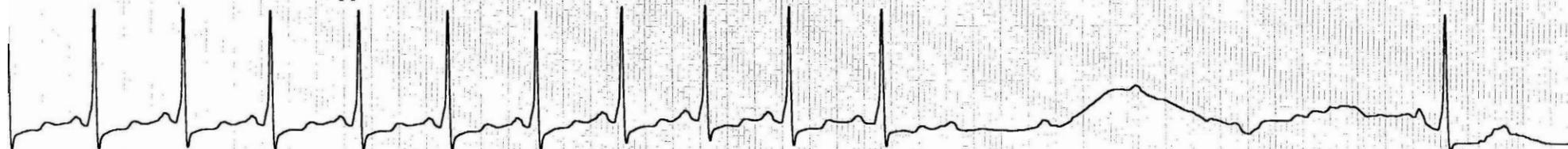
Opér:

Demandé par :

25 mm/sec
10 mm/mV
F 50 ν 0,5-40Hz W



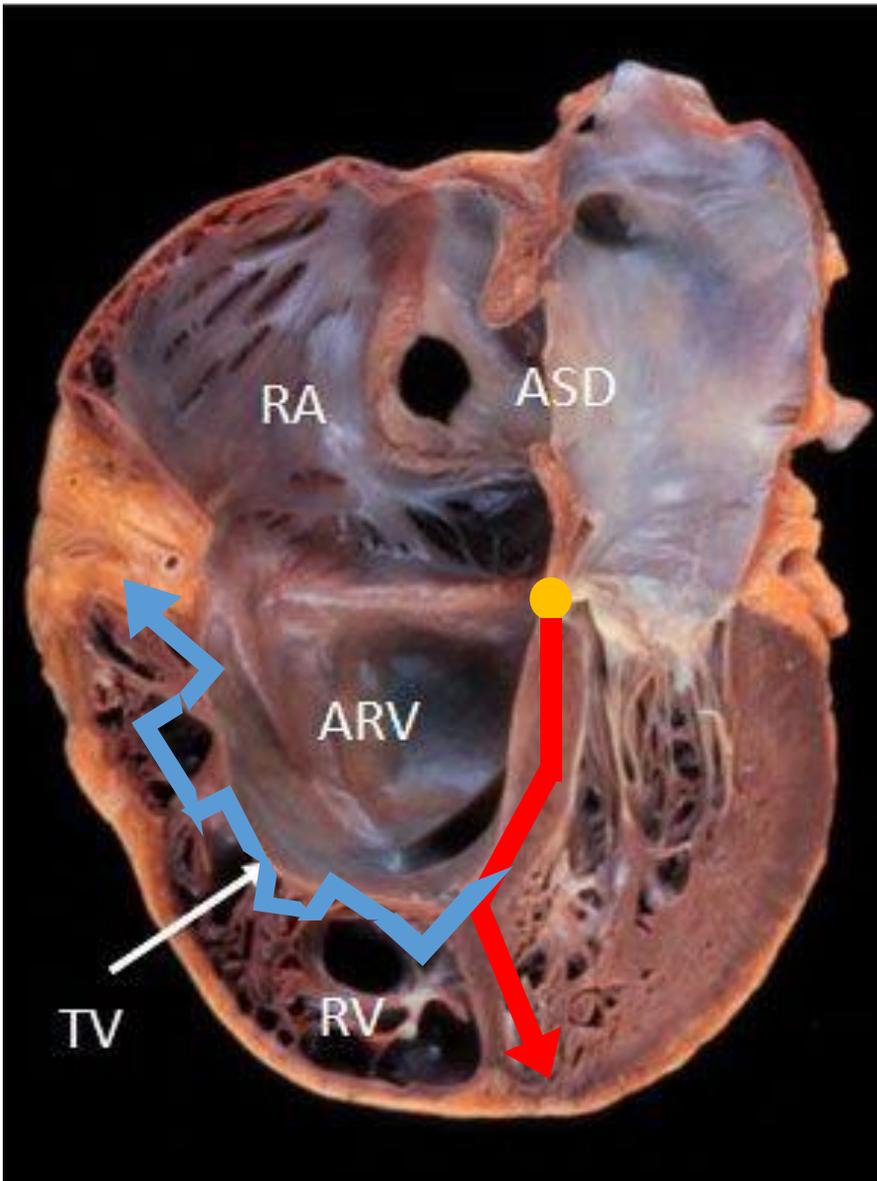
II



III

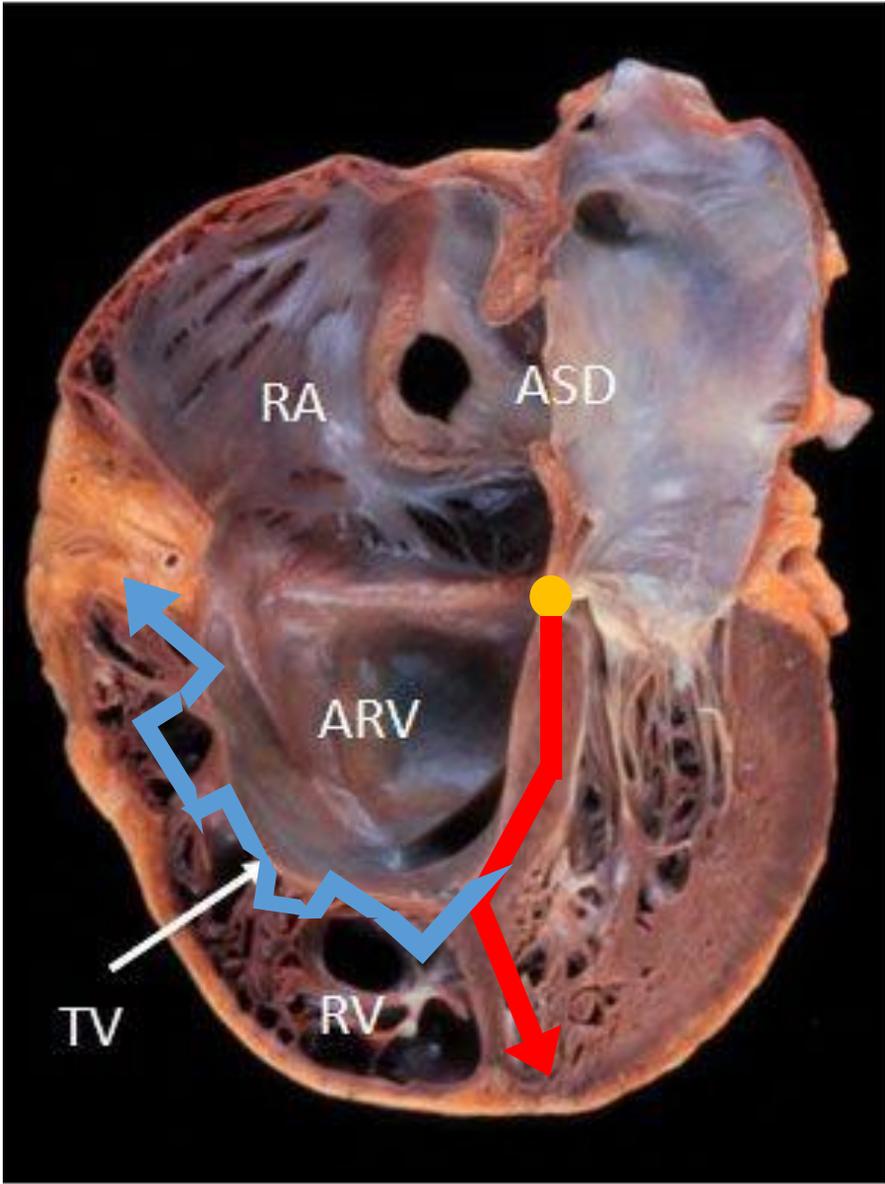


Voie accessoire et Ebstein



- 5-25% WPW
- VA droite et multiple > 50%
- VA maligne
- Taux de succès RF \approx 80%
- Taux de récurrence \approx 20%
- Complication 3-5%

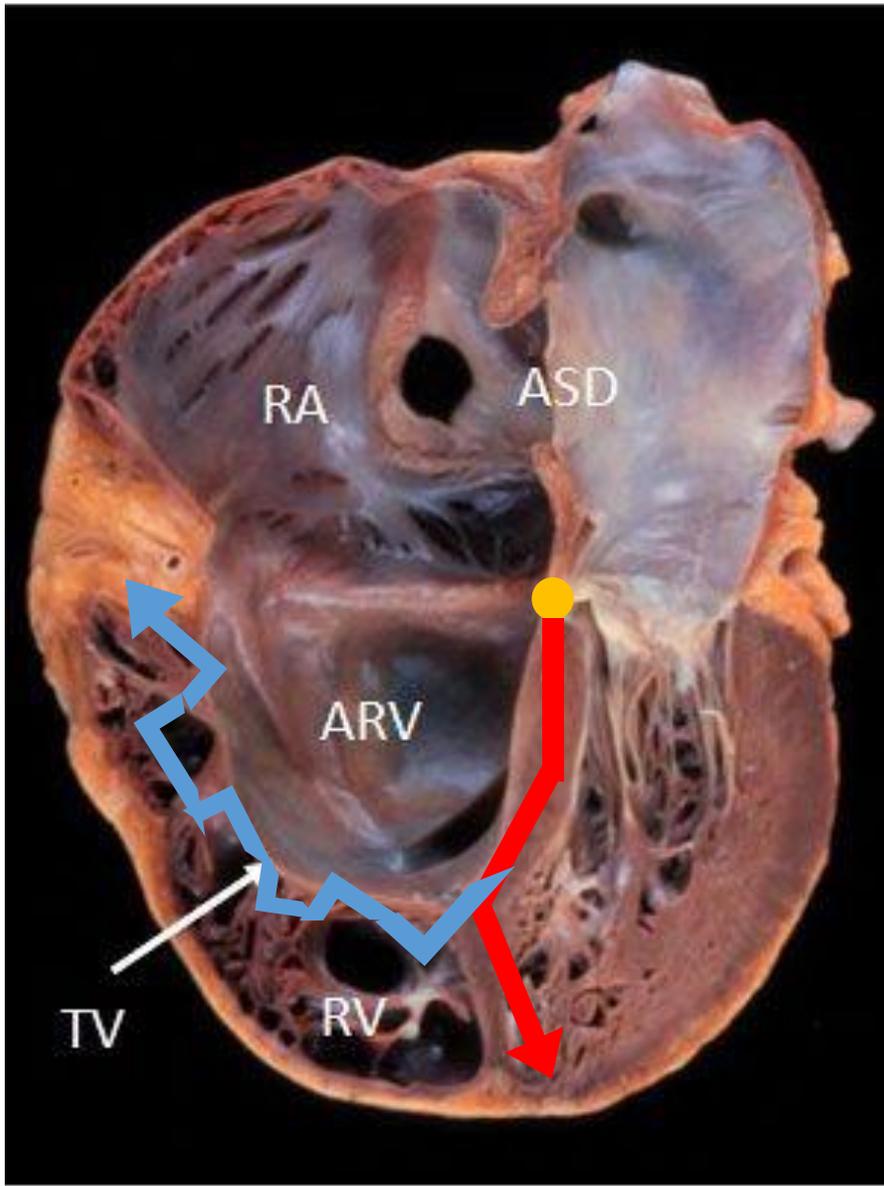
Reich et al. JCE 1998.



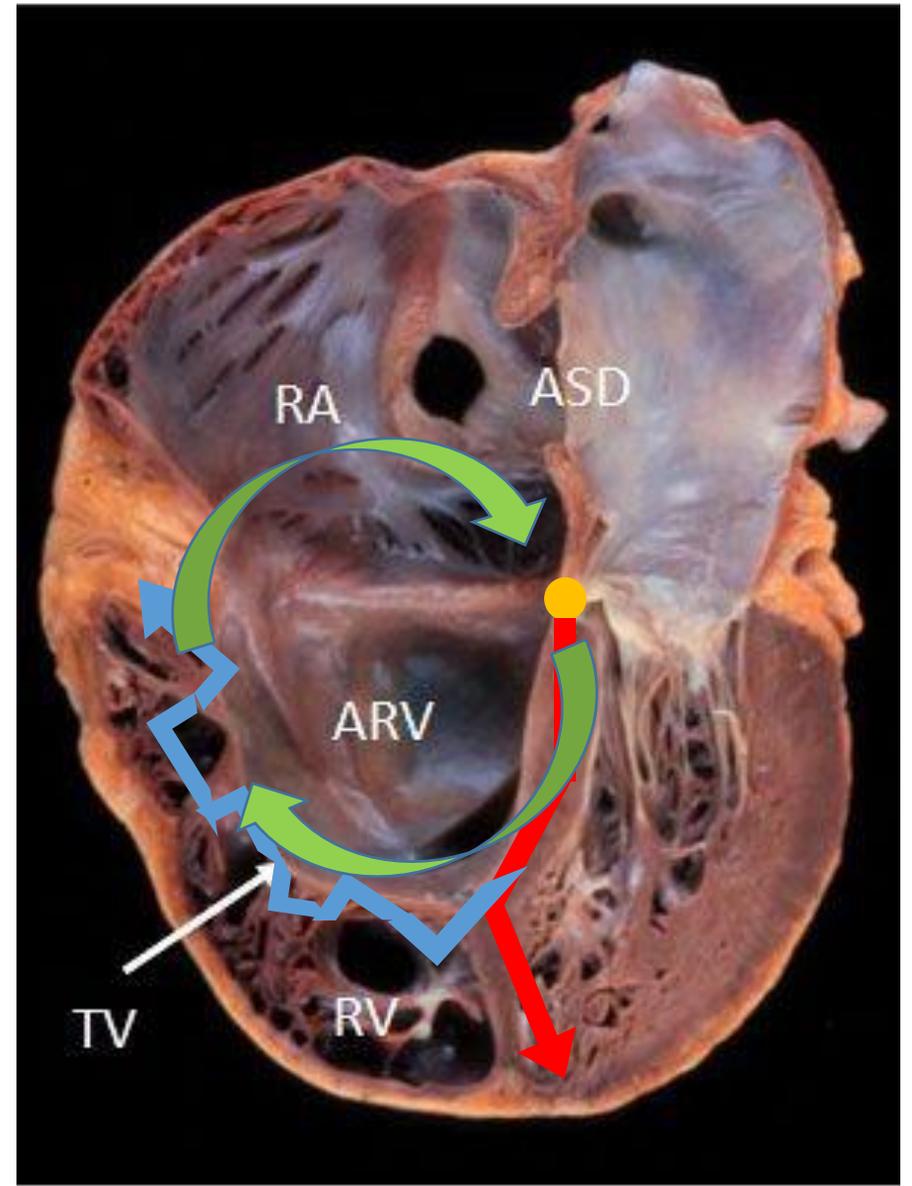
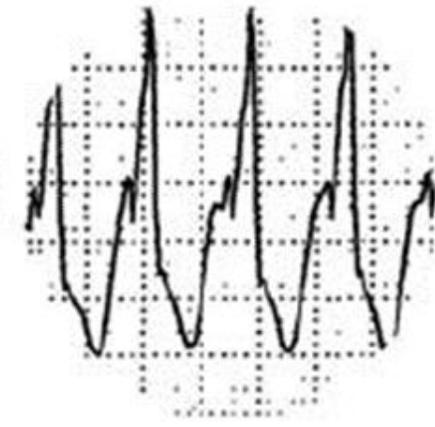
V1

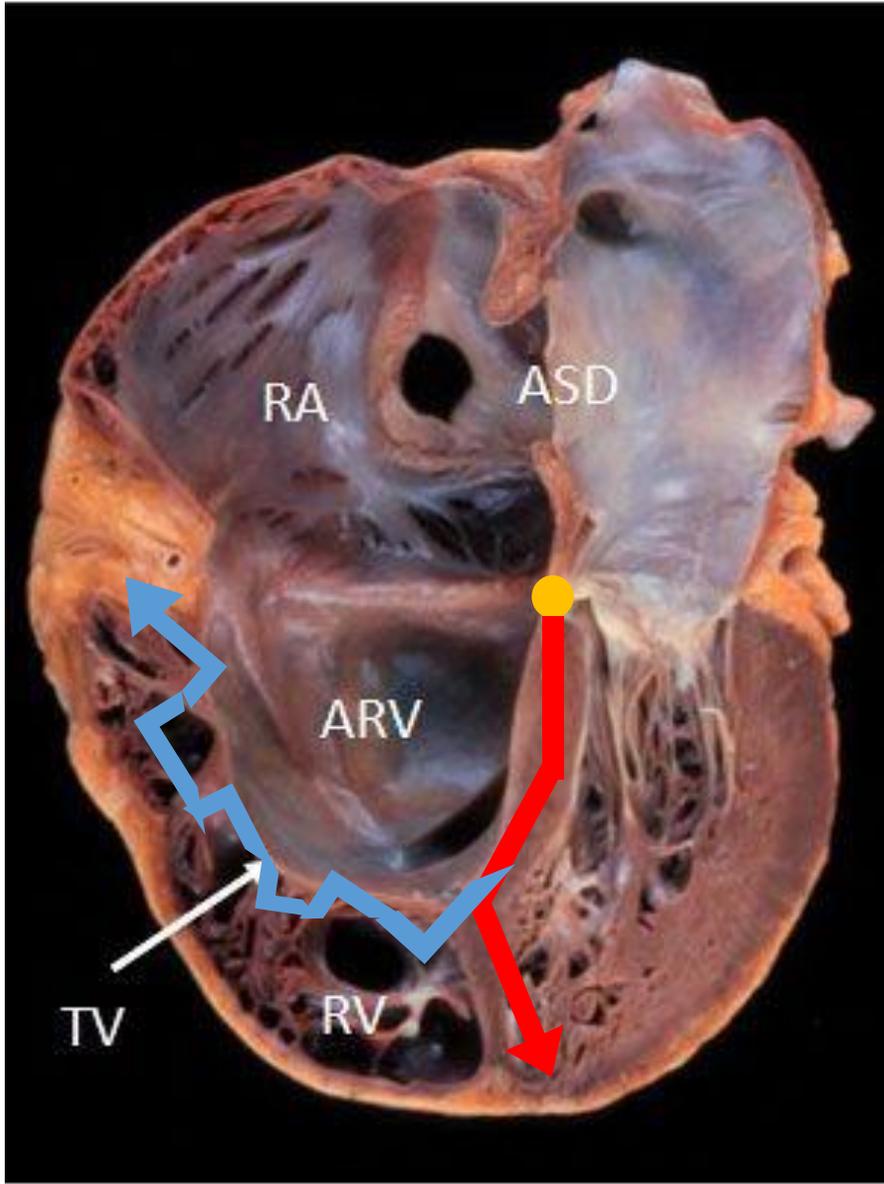
Ebstein sans VA





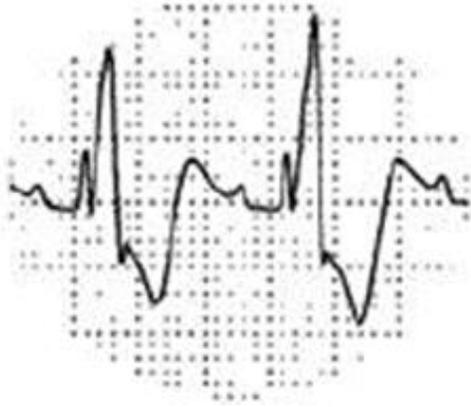
V1



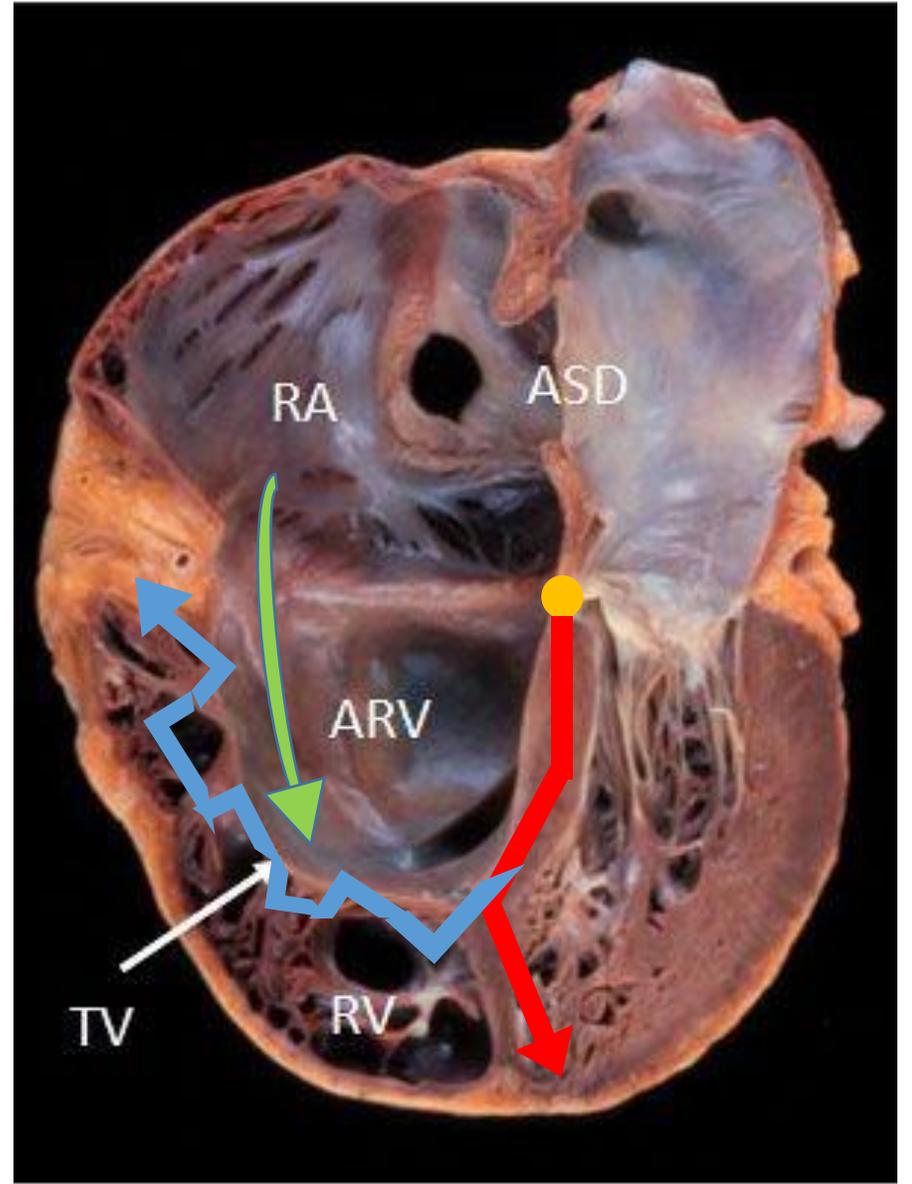


V1

Ebstein sans VA



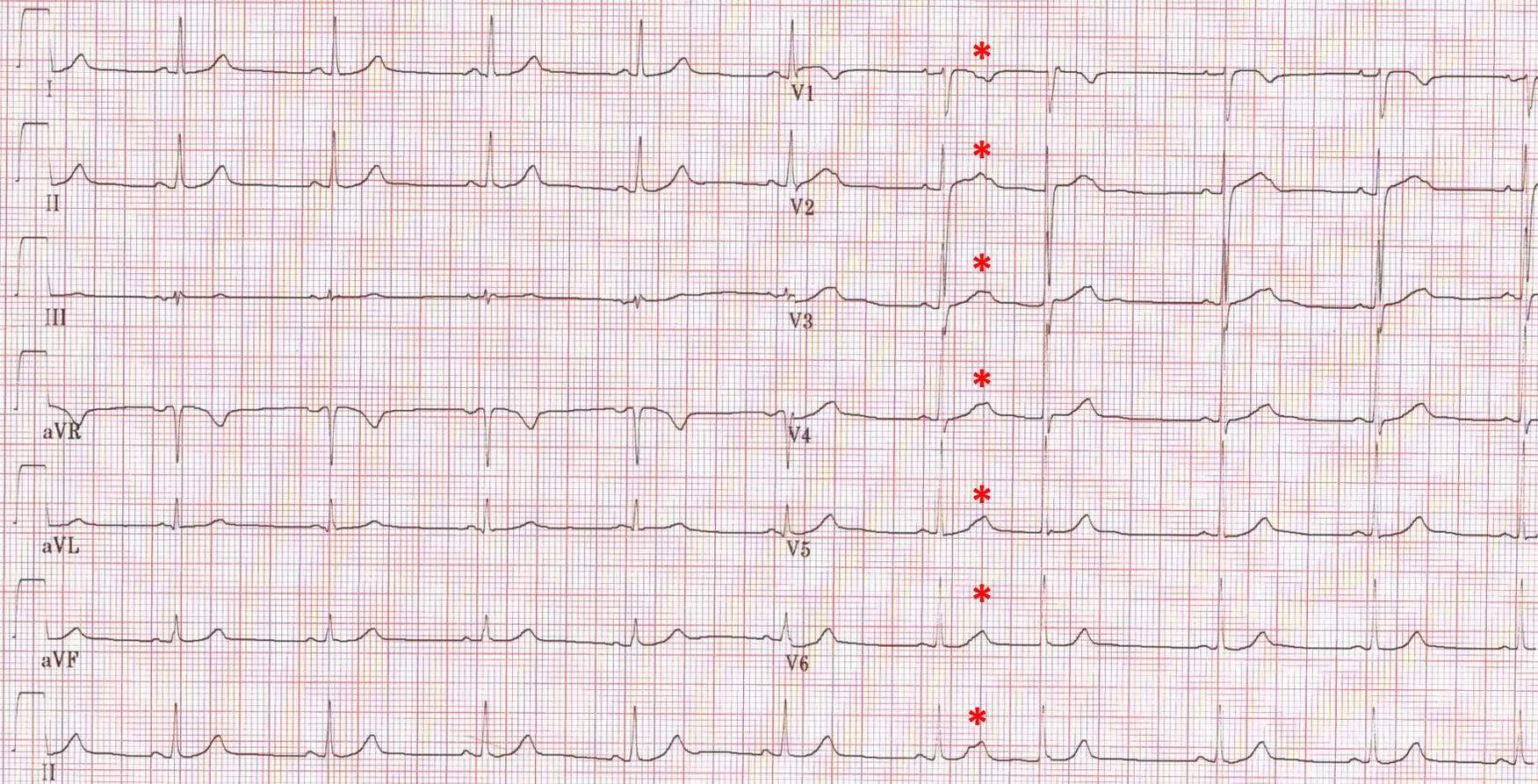
Ebstein avec VA



Fréq. ventr. 60 bpm
Intervalle PR 130 ms
Durée QRS 80 ms
QT/QTc 424/424 ms
Axes P-R-T 29 28 31

Rythme sinusal avec Extrasystoles auriculaires
ECG normal par ailleurs

Non validé



En conclusion

- Tout PR court n'est pas une préexcitation ventriculaire
- Exploration de **toute** PEV/WPW avant la fin de la primaire
 - Asympto \neq Bénin
 - Intermittent \neq Bénin
 - Epreuve d'effort rarement contributive
- Explo. complète de base et **sous Isuprel**
- **Attitude**
 - VA accessible/Maligne: Ablation (Class I)
 - VA non accessible/Bénigne: Abstention (Class III)
 - VA non accessible/Maligne: Flécaïne, adaptation des pratiques sportives
 - VA accessible/Bénigne: Choix patient/parents (Class IIa ou IIb)

