HÔPITAL INTERCOMMUNAL
VILLENEUVE-ST-GEORGES
LUCIE & RAYMOND AUBRAC

Présentée par : Dr EL HACHEM Georges

Modérateur : Dr SALENGRO Emmanuel,

Service de Cardiologie,

CHI Villeneuve Saint Georges

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INTERCOMMUNAL
VILLENEUVE-ST-GEORGES
LUCIE & RAYMOND AUBRAC

CAS CLINIQUE

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FACTEURS DE RISQUE CARDIOVASCULAIRES

- Mr C. S agé de 60 ans, consulte en février 2022 pour bilan cardiovasculaire
- Diabète type II diagnostiqué en novembre 2021 (HbA1C = 10.7%)
- Surpoids (IMC = 27 kg/m2)
- Tabagisme sevré depuis 20 ans (35 Paquets/année)

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SYMPTOMATOLOGIE/EXAMEN CLINIQUE

- Asymptomatique, relativement sédentaire

- Examen Clinique sans particularités

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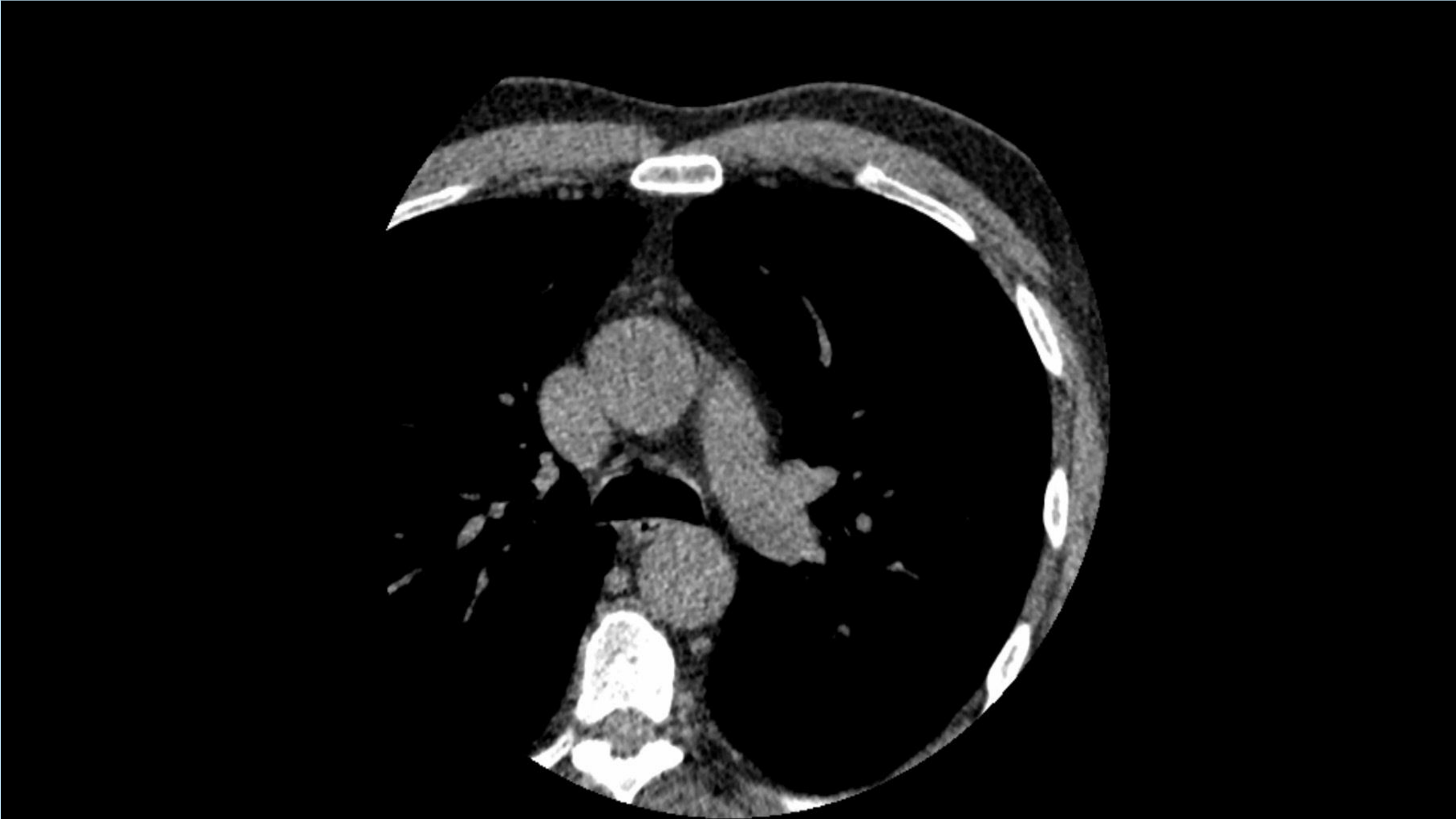
BILAN PARACLINIQUE

- ECG : rythme sinusal 88/minute, axe normal, QRS fins, absence de troubles de repolarization ou de conduction
- LDL = 1.25 g/l
- Echocardiographie : normale
- Epreuve d'effort : 135 W, 82% de la FMT, negative.
- Score calcique coronaire = 452



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ECHOGRAPHIE SOUS DOBUTAMINE

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12 dérivations standard

ECG debase

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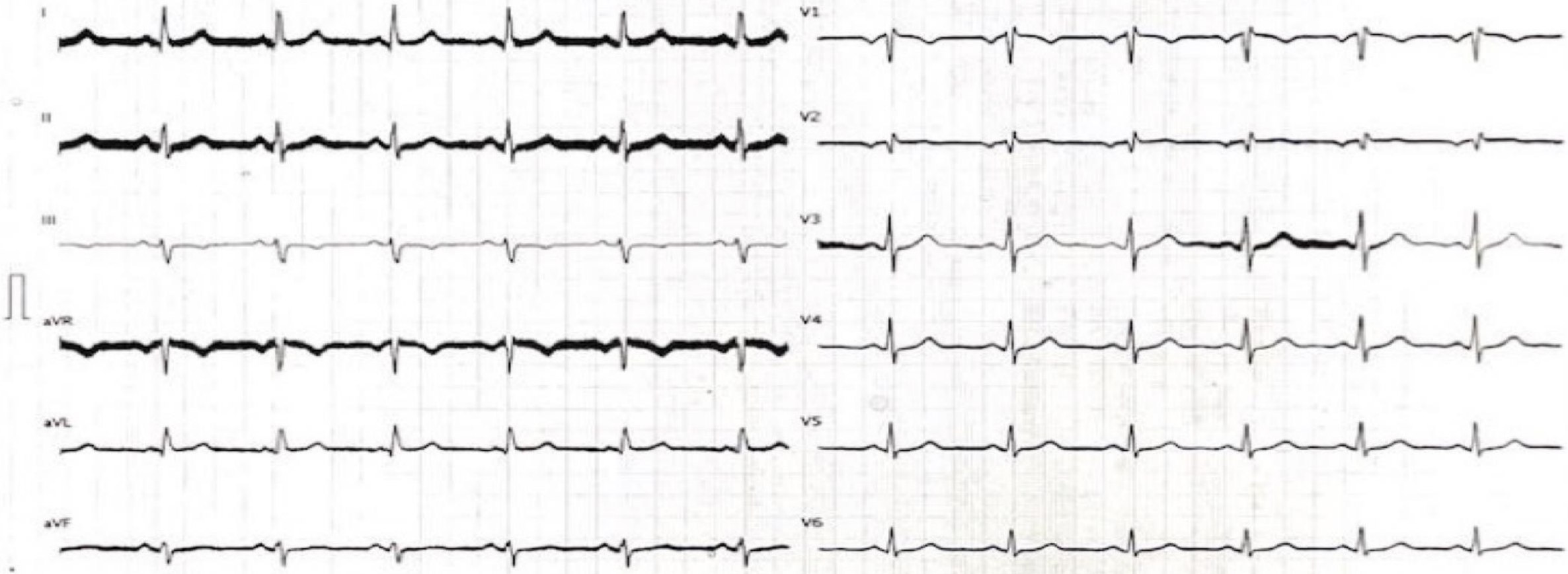
FC 76 bpm

		RR	792 ms
		P	102 ms
		PR	151 ms
Axe P	36 °	QRS	71 ms
Axe QRS	-12 °	QT	371 ms
Axe T	8 °	QTcB	417 ms

Rapport non confirmé

Indication
Remarque



25 mm/s, 10 mm/mV

Séquentiel

FPB 40 Hz, CA 50Hz

AT-102 G2 1.2-0 (1080 003153)

CHIV, Cardiologie – Imprimé sur 14.04.2022 12:45:34

Page 1 / 1

SCHILLER SWITZERLAND Art. No. 2.157.050 CE 0044

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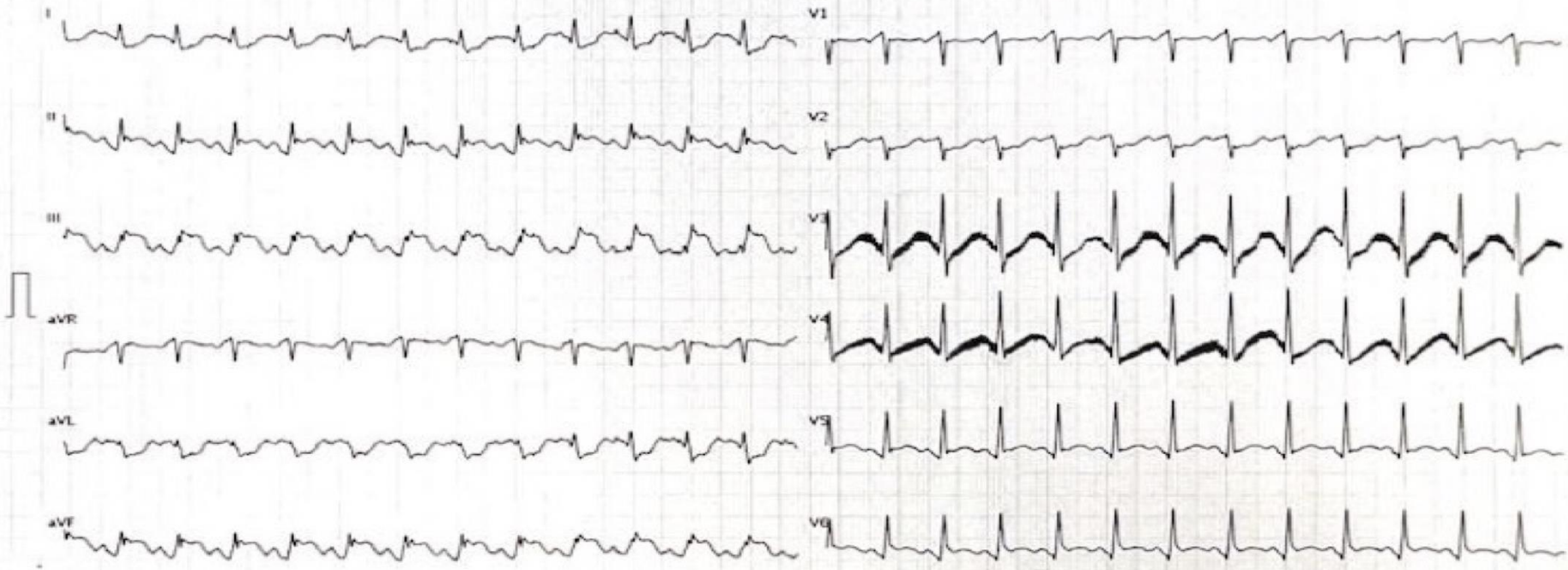
DDN 40f

N° séjour		FC 155 bpm		RR	388 ms
Chambre				P	99 ms
Traitement				PR	120 ms
N° requête		Axe P	90 °	QRS	110 ms
Émetteur de L.		Axe QRS	88 °	QT	257 ms
Prot. requ.		Axe T	117 °	QTc8	413 ms

Rapport non confirmé

Indication
Remarque



25 mm/s, 10 mm/mV
Séquentiel
FPB 40 Hz, CA 50Hz

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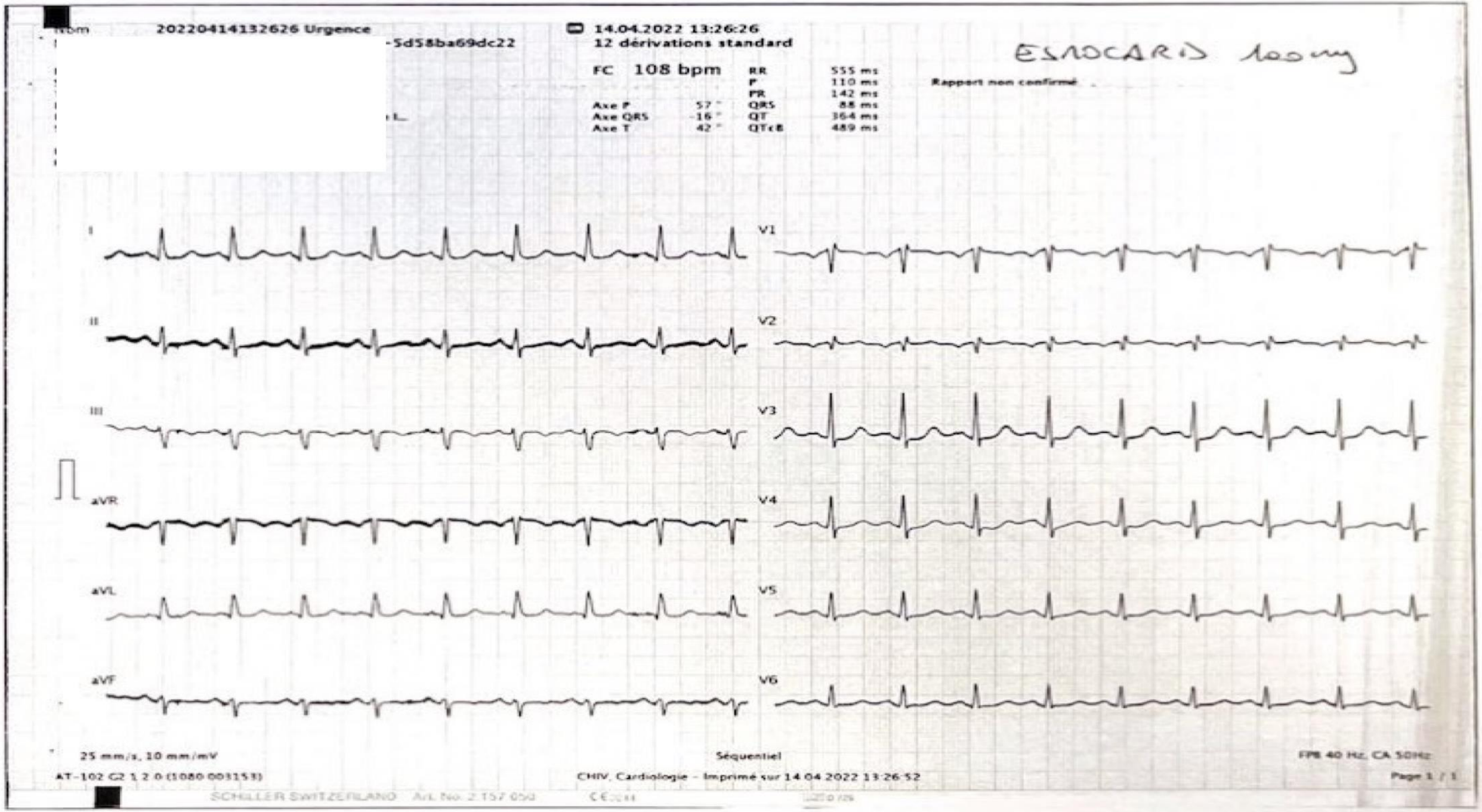
CHV, Cardiologie – Imprimé sur 14.04.2022 13:15:44
Page 1 / 1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12 dérivations standard
ESMOCARD 100mg
FC 108 bpm
RR 555 ms
P 110 ms
PR 142 ms
QRS 88 ms
QT 364 ms
QTc 489 ms
Axe P 57 °
Axe QRS -16 °
Axe T 42 °
Rapport non confirmé
I
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V6
25 mm/s, 10 mm/mV
Séquentiel
FPB 40 Hz, CA 50Hz
AT-102 G2 1.2.0 (1080 003153)
CHIV, Cardiologie - Imprimé sur 14.04.2022 13:26:52
Page 1 / 1
SCHILLER SWITZERLAND

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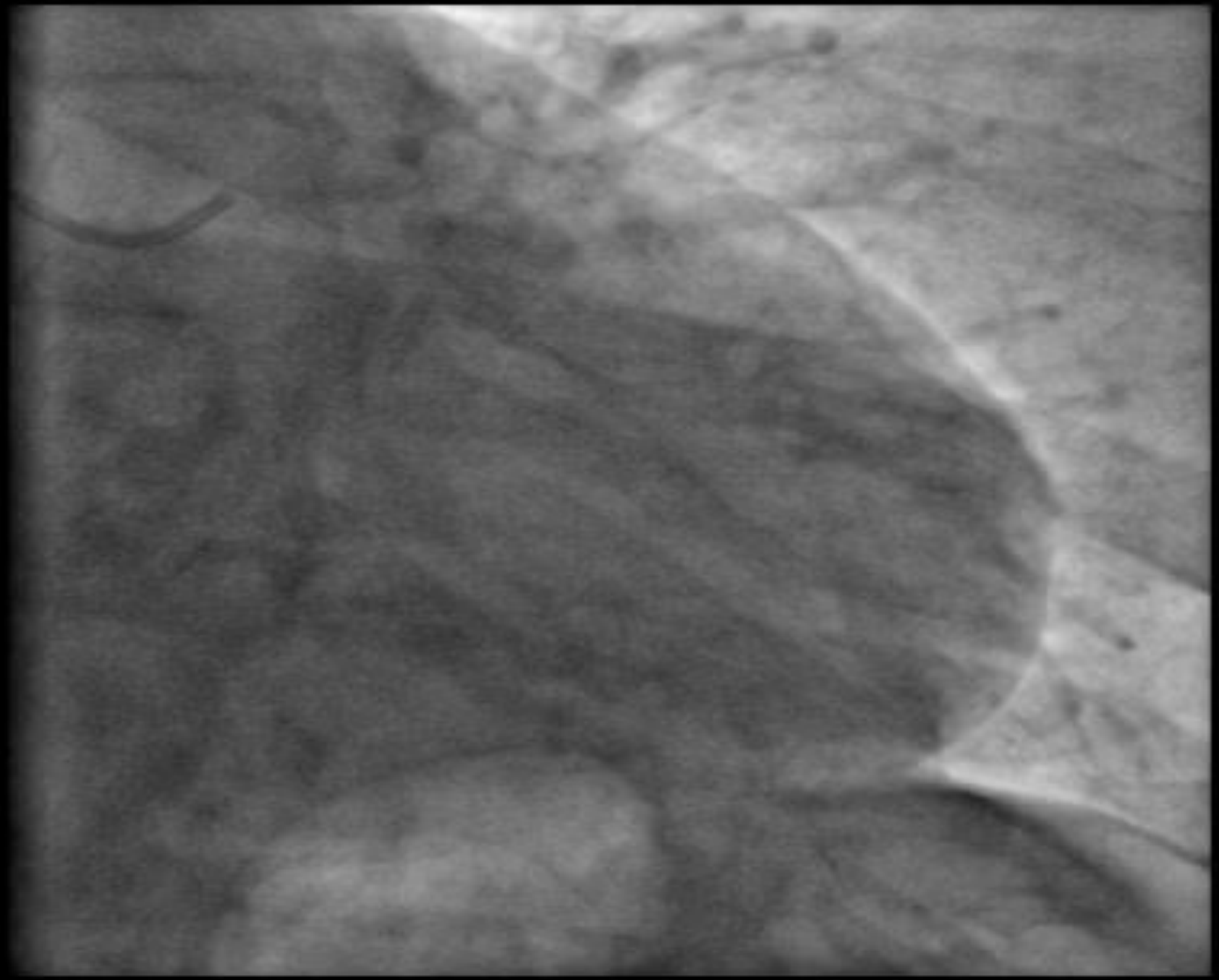
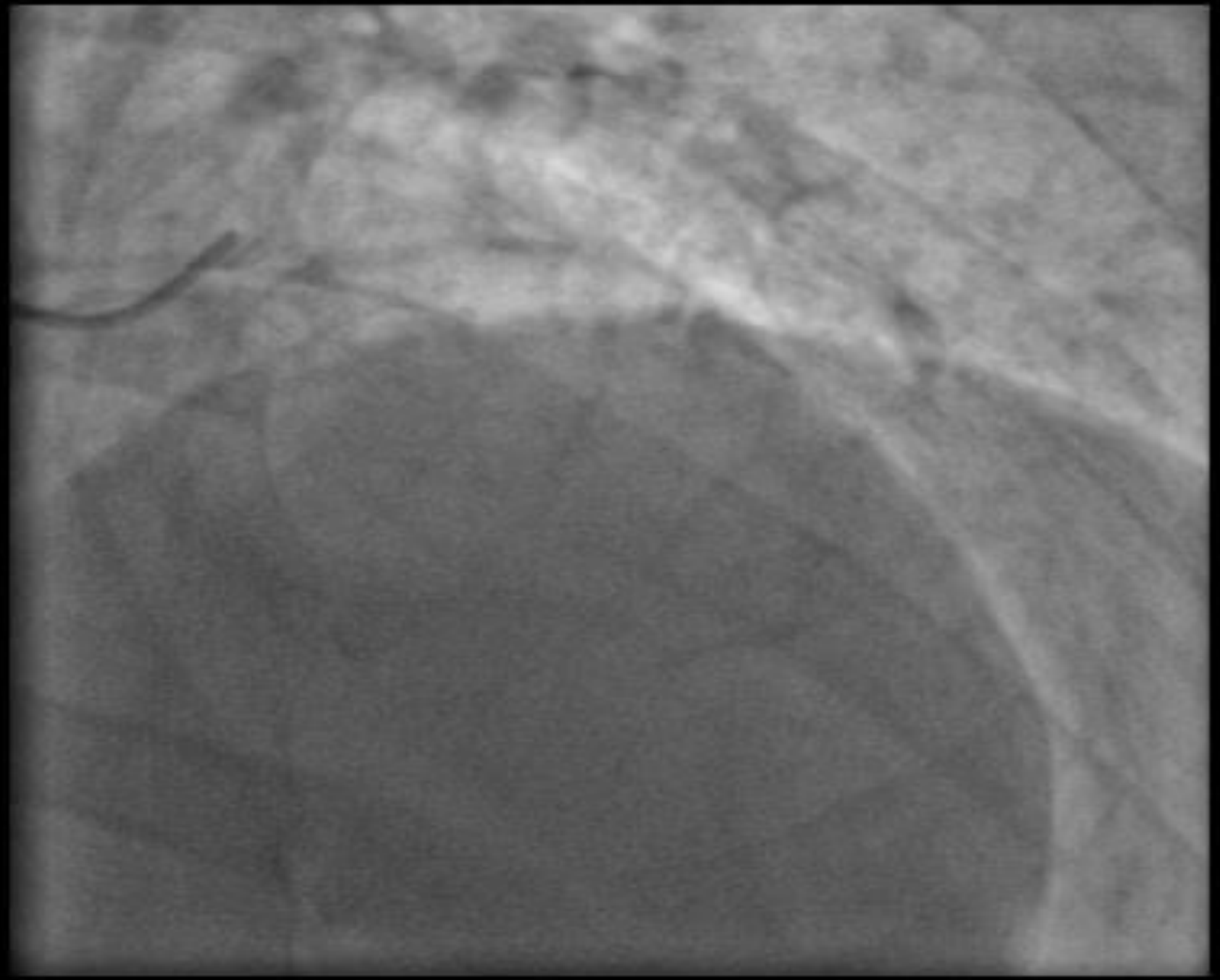
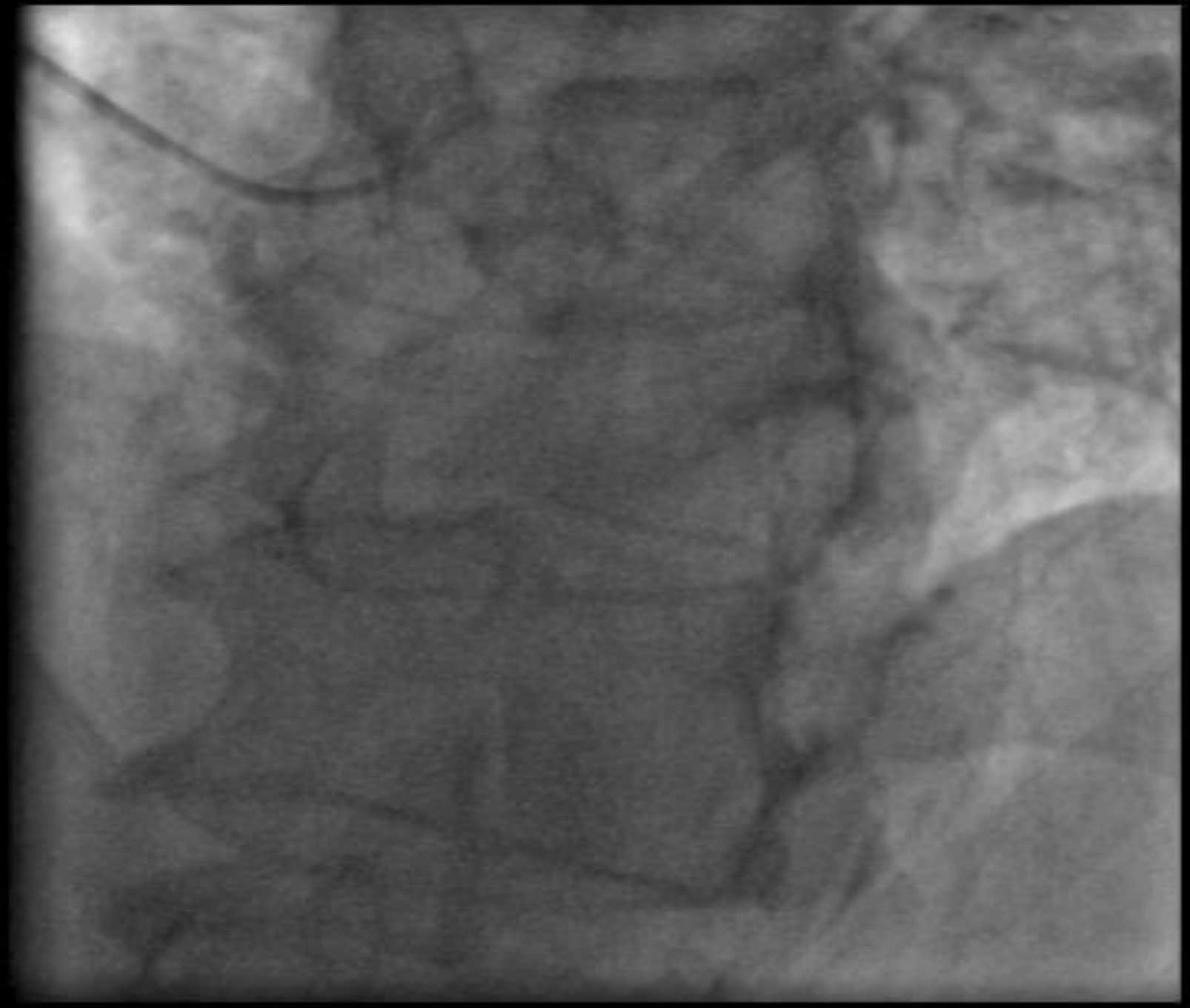
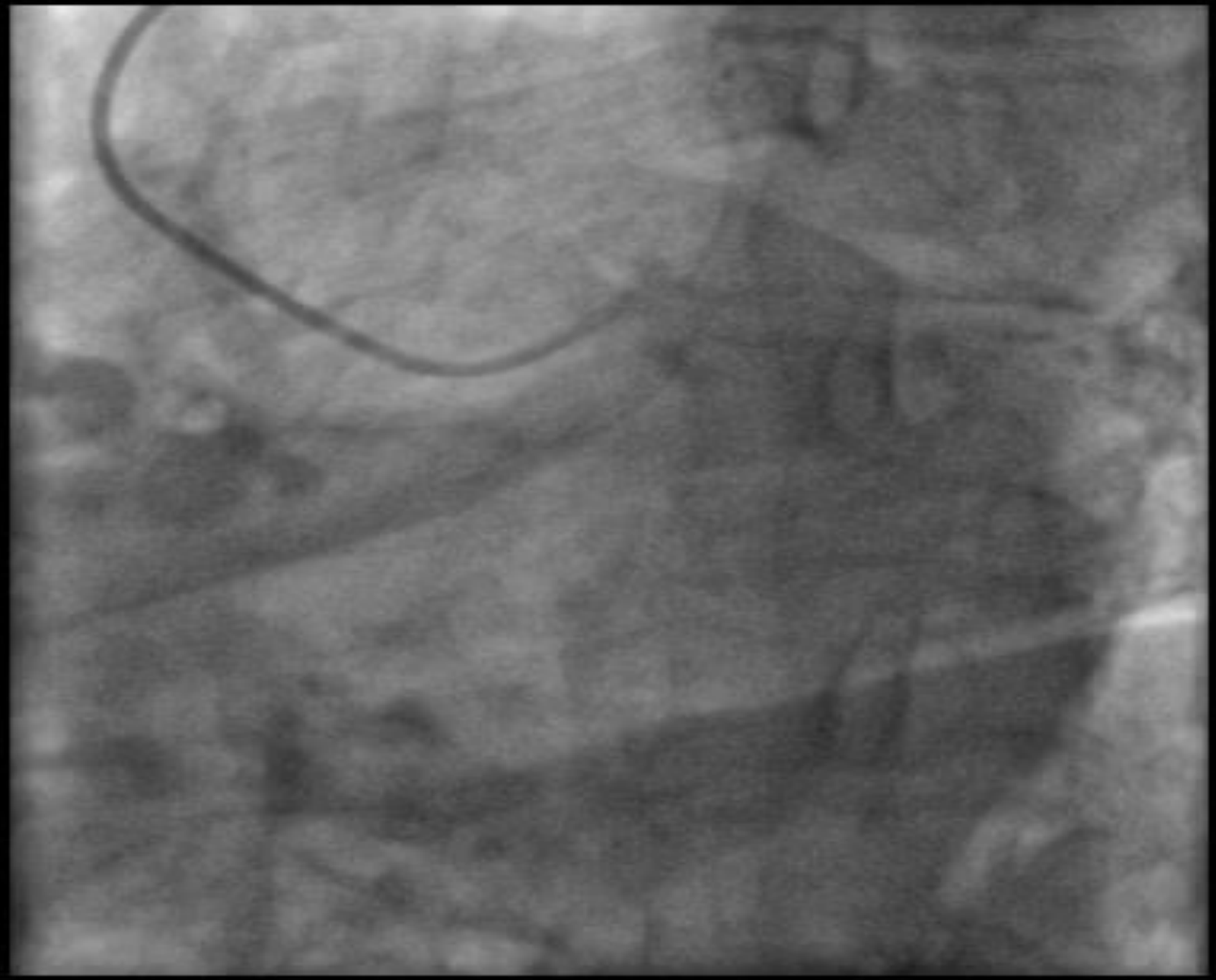
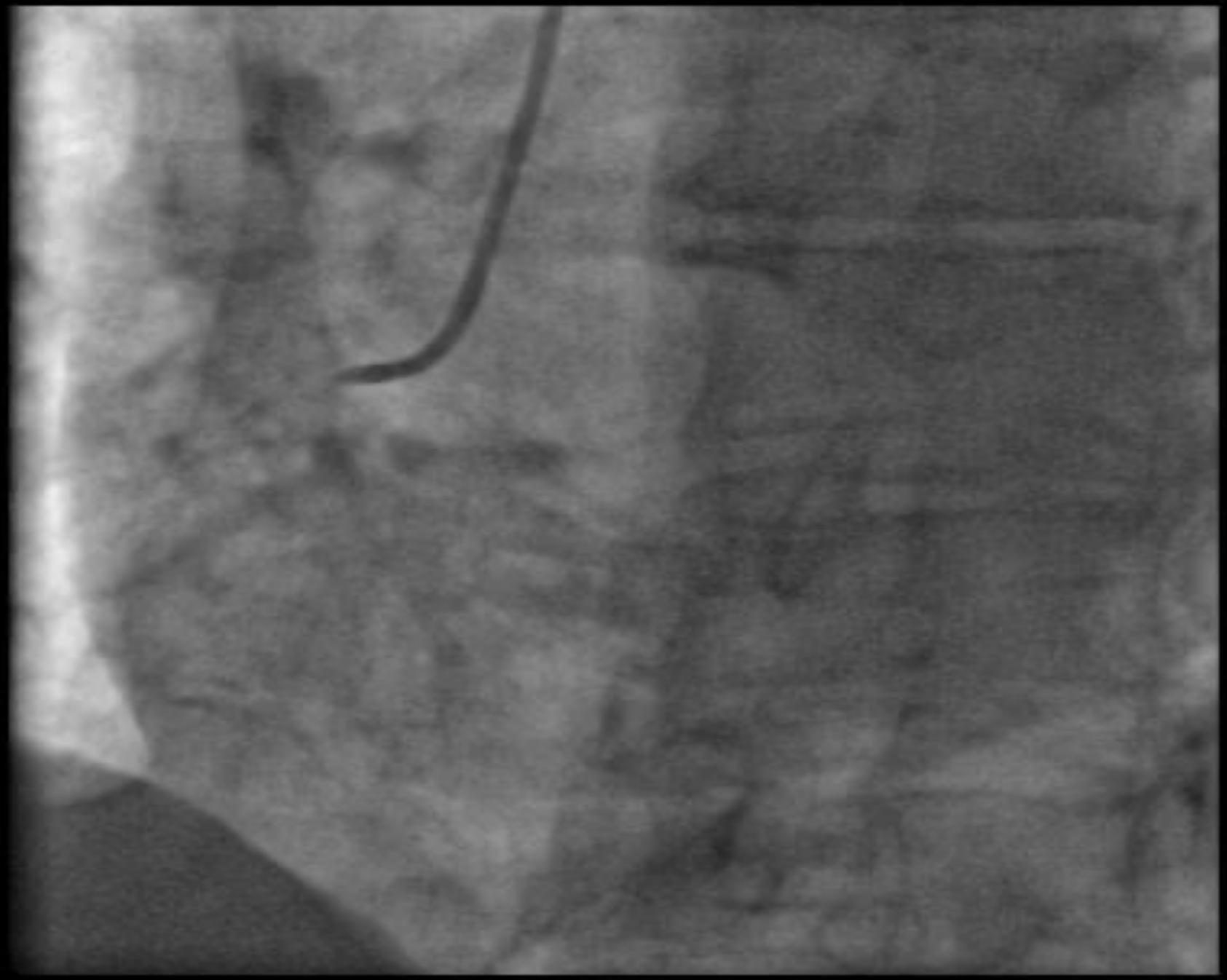
CORONAROGRAPHIE A J1

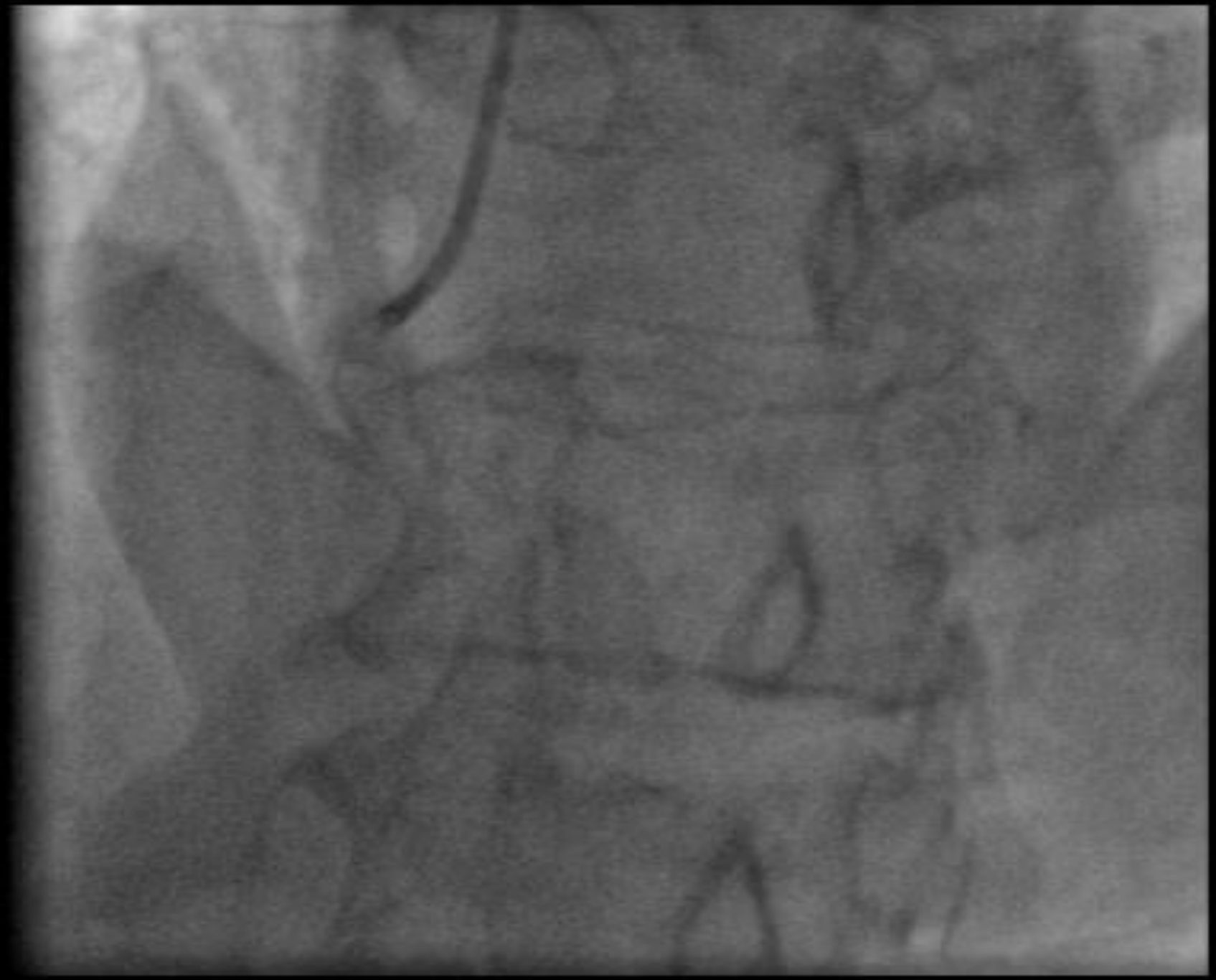










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QUEL EST VOTRE DIAGNOSTIC?

ATTITUDE THERAPEUTIQUE?

EXAMENS A REALISER?

QUEL TEST D'ISCHEMIE POUR LE SUIVI?

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SPASME CORONAIRE INDUIT PAR LA DOBUTAMINE

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TRAITEMENT DE SORTIE

KARDEGIC 75 mg

ATORVASTATINE 40 mg

VERAPAMIL LP 240 mg

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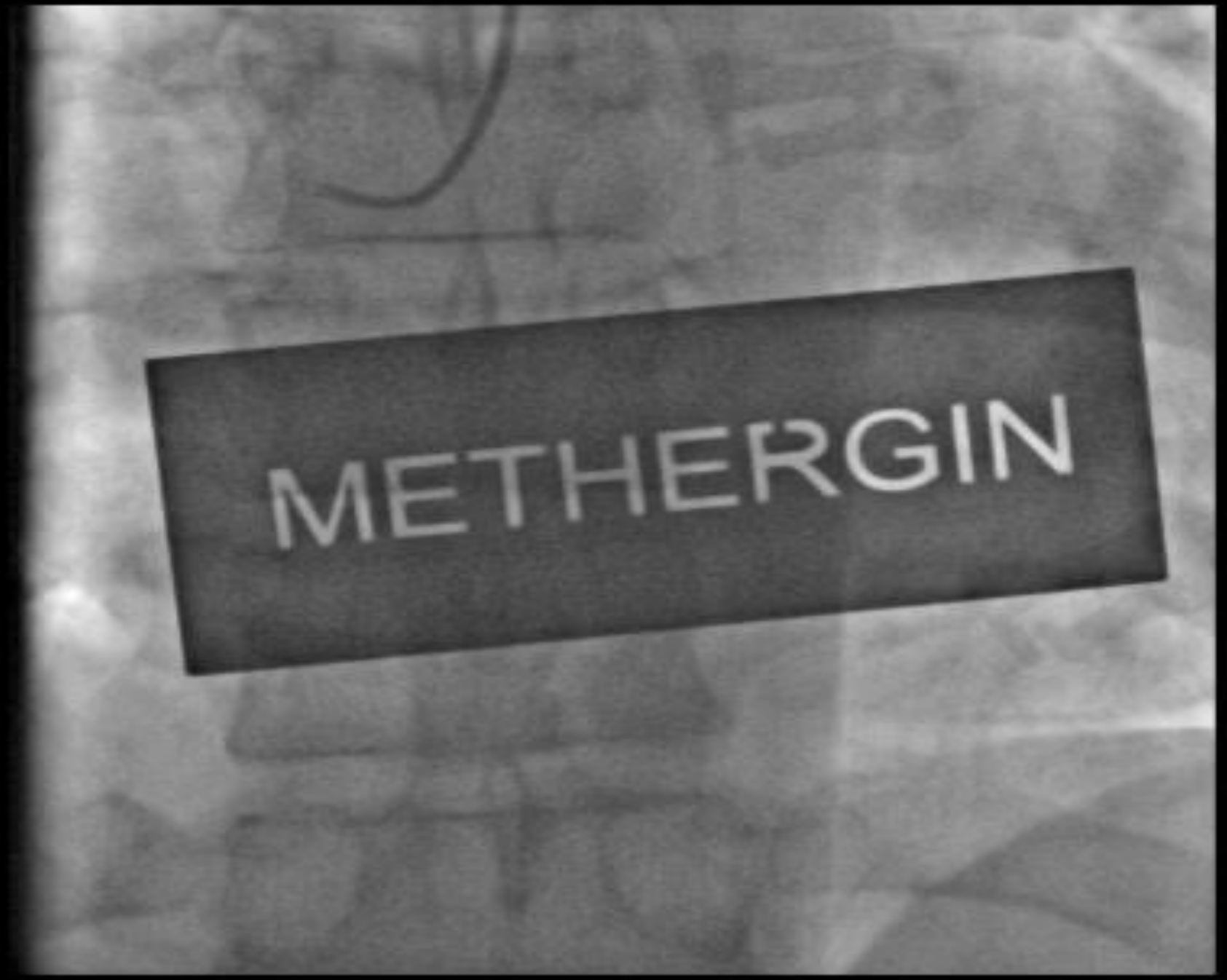
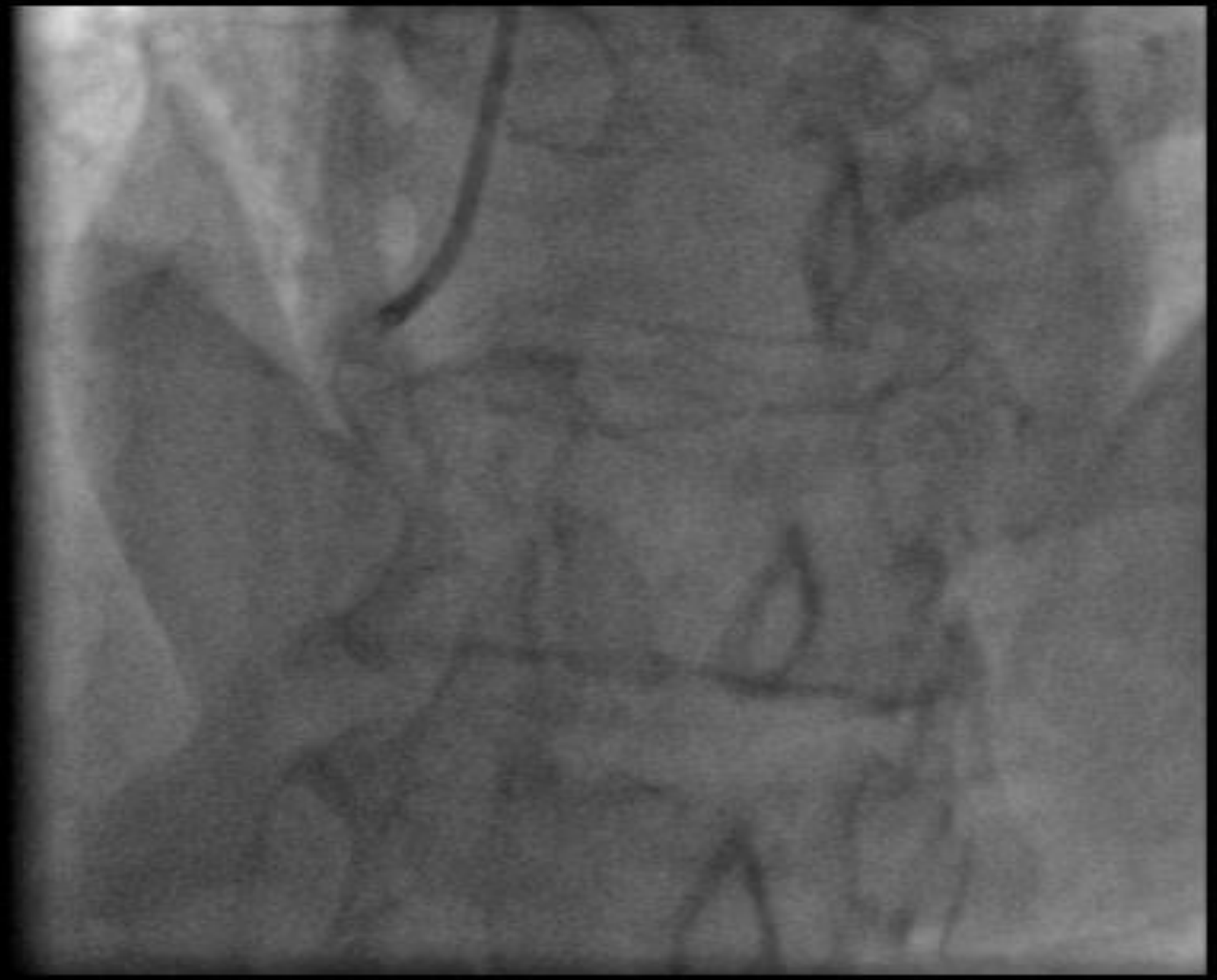
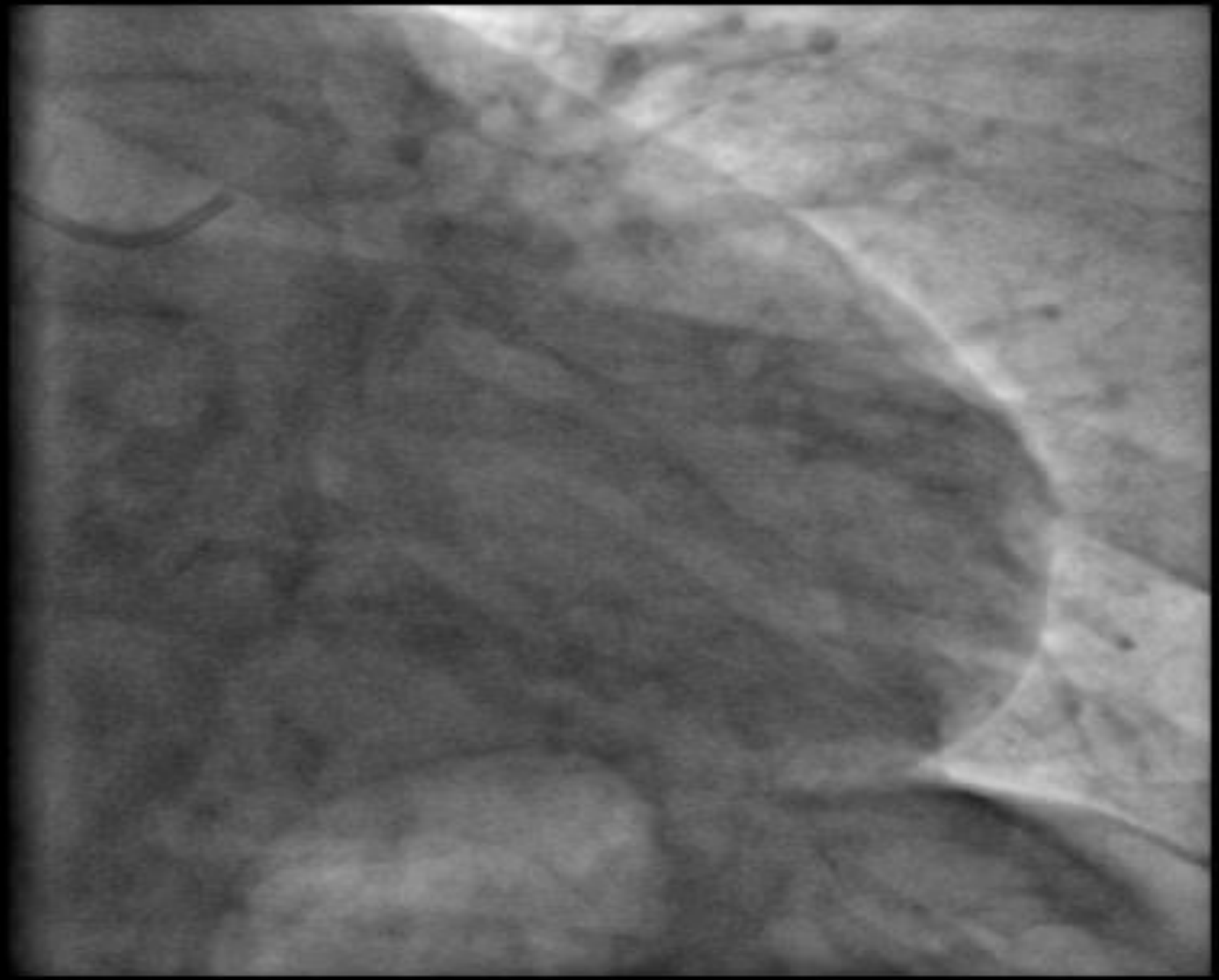
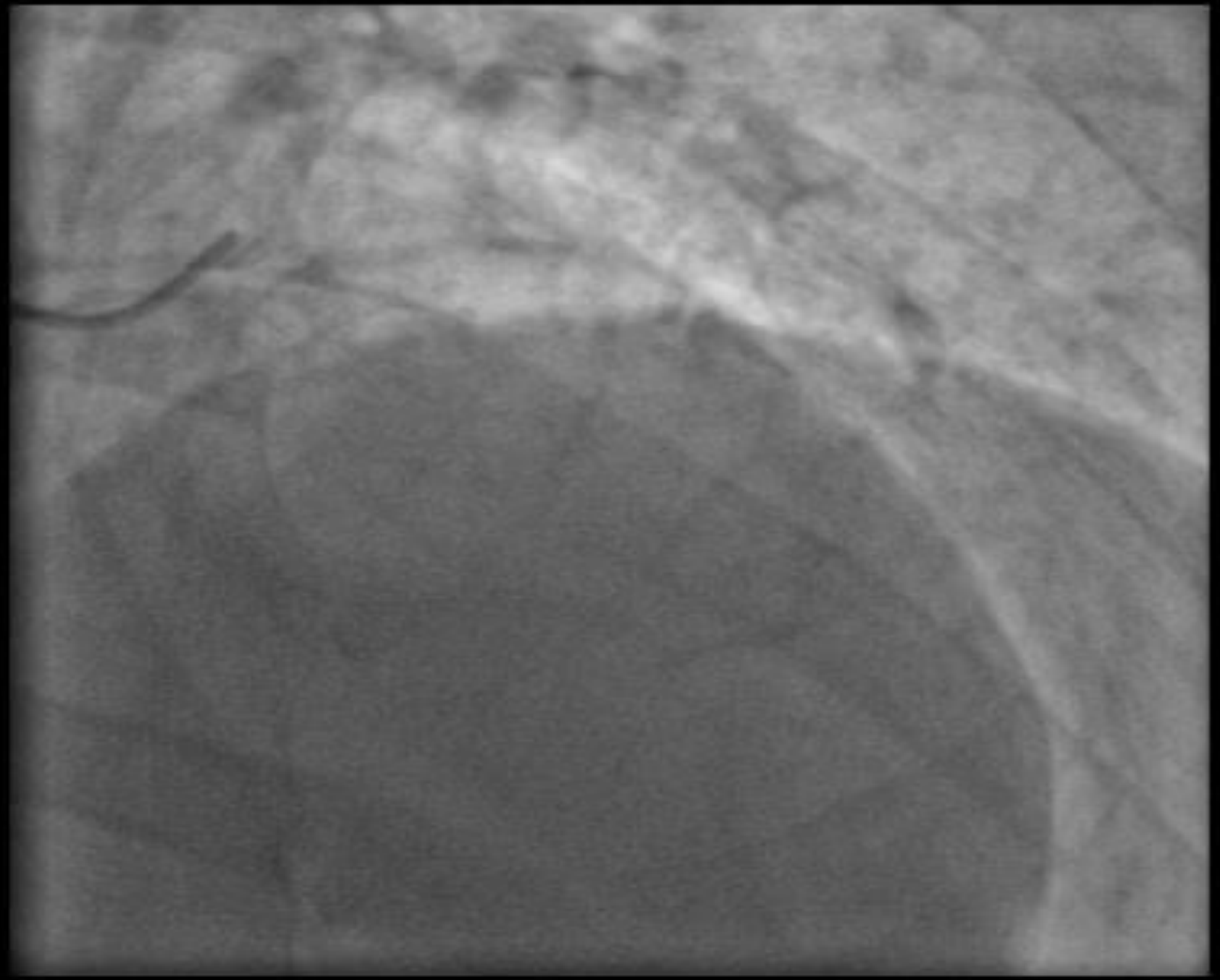
TEST DE PROVOCATION DU SPASME A J30

- Test au Méthylergométrine (Méthergin®)
- Réalisé après 48 heures de washout thérapeutique
- Injection intraveineuse lente de 0.4 mg de methylergometrine (2 ampoules de Méthergin)
- Négatif cliniquement, électriquement et angiographiquement


METHERGIN







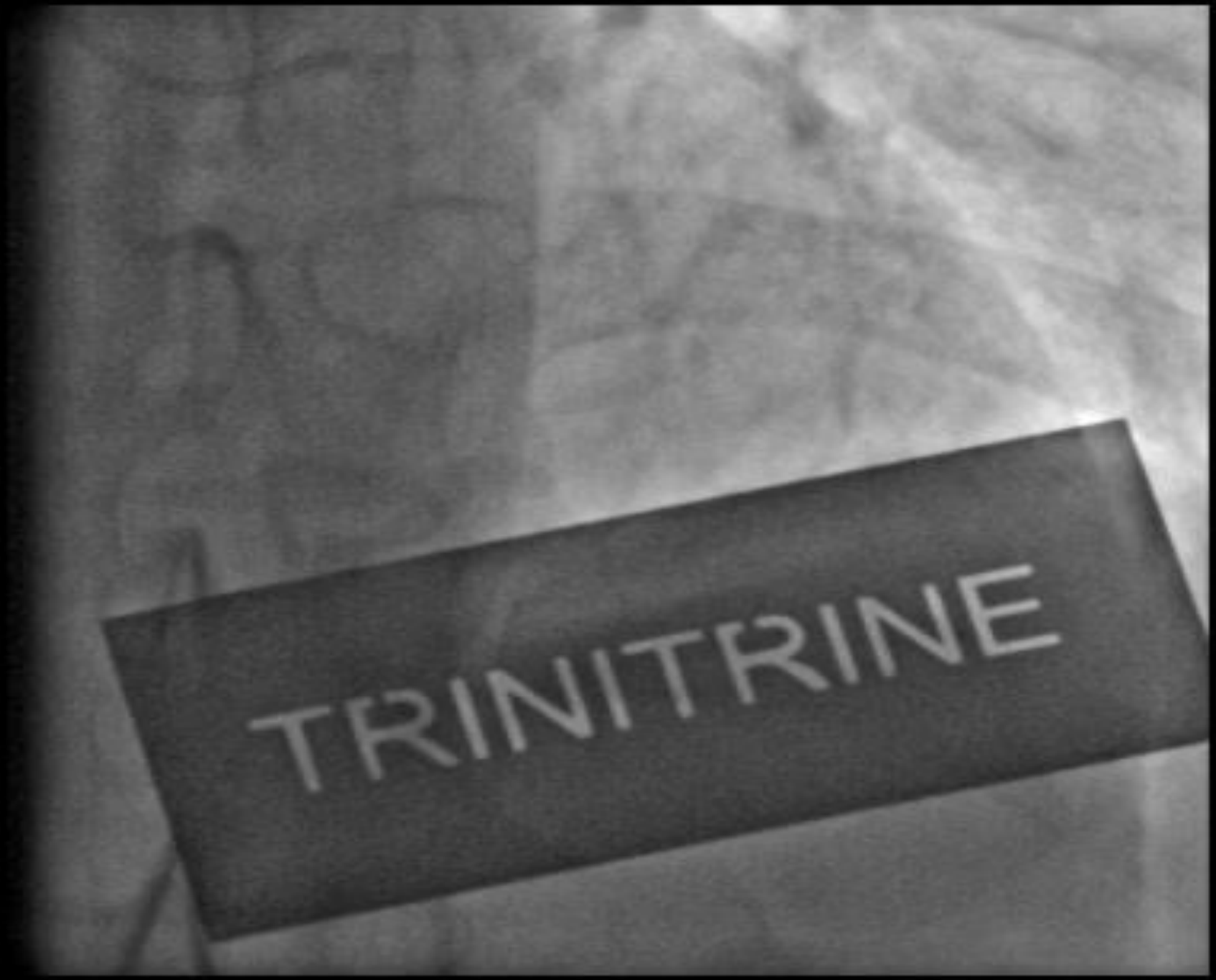

TRINITRINE

Table 1 Recapitulation of literature case reports on dobutamine-induced ST-elevation myocardial infarct (STEMI) or coronary spasm (CS)

Author	Age	Symptoms, h/o CAD or CS	Risk factors	Dob.	Atropine/beta-blocker	ST elev	WMA	CAD or NOCAD	Outcome
Cohen A *Lancet* 1995[16]	48M	CAD(PCI), CS	N/A	40	Yes/no	Inf+lat At peak	Inf	NOCAD	Resolution with SL nitroglycerin
Mathew J *Lancet* 1995[17]	69F (AA)	Exertional CP	N/A	40	Yes/no	Inf+ant at peak	Inf	NOCAD	Resolution with SL nitroglycerin
Deligonul U *Clin Cardiol* 1996[18]	35M	Resting CP	Smoker FH HLP	40	No/no	Inf+lat at peak	NA	NOCAD: RCA plaques LAD 20%	Resolution with SL nitroglycerin
Shaheen J *Am Heart J* 1996[19]	49M	Inf STEMI, NOCAD	Smoker HLP	40	Yes/no	Inf +V1 at peak	NA	NOCAD: 40%—50% LAD 30%—40% RCA	VF, defibrillation, propranolol for VF
Yamagishi H *Jpn Circ J* 1998[20]	55F Jpn	Exertional+resting CP	No, h/o breast K	20	No/no	Lat+ant	None	Normal arteries, spasm LCx with dobut	Spontaneous resolution 16 min after termination test
Roffi M *Heart* 2000[21]	58M	CAD (PCI) exertional+resting CP	HLP, ex-smoker	5—20	No/no	Inf+ant, NSVT	None	NOCAD: 50% D1 40% LAD	Resolution with nasal nitroglycerin
Varga A *Am J Med* 2000[9]	55M	CAD, CABGx4, exertional CP	N/A	5	No/no	V3-6 ST depress	New postlat akinesis	Autopsy: no acute MI	Metoprolol+nitrates TdP/VF 9 min into recovery, death
Alvarez L *Rev Esp Cardiol* 2002[22]	37M	Resting CP	Smoker EtOH	40	Yes/propranolol	ST elev	Yes	NOCAD	Resolution with IV nitrates
Ferreira LD *Rev Port Cardiol* 2004[23]	F	Exertional CP	N/A		N/A	ST elev		Normal arteries	
Jiamsripong P. *JASE* 2007[8]	62M	Pre-op knee surgery	DM HTN HLP	40	Yes/no	12′ into recovery	Apical	CAD: 95% LAD	At 12′: VT, VF, defib resolution with SL nitroglycerin
Ioannides M *Int J Cardiol* 2008[24]	45M	Exertional epigastric pain	Obesity DM	40	No/no	Ant ST elev+NSVT/ MI	Ant+lat	NOCAD	Intravenous nitrates, thrombolysis for refractory CS
Fineschi *Eur J Echocardiogr* 2011[25]	59M	Resting CP	HLP	40	Yes/metoprolol	Ant+lat 10′ after βb	Anteroseptal	NOCAD: <50% pLAD	Resolution with SL nitroglycerin
	54M	Exertional, atypical CP	None	40	Yes/propranolol	Inf 3′ after βb	Inf+lat	NOCAD: <60% RCA	Emergent Cath, IC nitrates
	65F	h/o CAD resting CP	HTN DM	40	Yes/propranolol	Inf 5′ after βb	Inf+lat	NOCAD: 25% LAD+LCx	Resolution with SL nitroglycerin
Burgos-Rosado PR. *Arq Bras Cardiol* 2014[26]	55M	NA	Obesity HTN, DM	30	No/metoprolol	Inf+ant no chest pain	Yes	NOCAD	Abundant PVCs
Martinez AM *Int J Cardiol* 2015[10]	78M	Resting CP	HTN, LBBB	40	Yes/esmolol	Inf, 10′ after βb	No	NOCAD: ecstatic LCx	Resolution with SL nitroglycerin
Poorzand H *J Cardiothorac Med* 2016[27]	42F	Exertional CP	None	30	No/no	Inf+ant at peak	Yes	NOCAD	Resolution with SL nitroglycerin
Fernandes M *J Cardiol Curr Res* 2017[28]	79F	Pre-op knee surgery	N None	40	No/no	Inf+ant during recovery	None	NOCAD: plaques LAD	No CP, dyspnoea+hypoTN
Rekik S *J Electrocardiol* 2009[29]	54M	Exertional+resting CP	None	15	No/no	Inf +V4-6 ST-elev (10 mm)	NA	NOCAD: normal arteries	Intravenous nitrates
Cabani E *J Cardiovsc Med* 2009[30]	80F	Resting CP	HTN	40	No/metoprolol 3 mg intravenous	Inf ST-elev 30′ after βb	Inf WMA	NOCAD	Resolution with SL nitroglycerin

AA, African-American; ant, anterior; βb, beta-blocker; CABG, coronary artery bypass graft; CAD, coronary artery disease; Cath, catheterisation; CP, chest pain; defib, defibrillation; depress, depression; DM, diabetes mellitus; Dob., dobutamine; F, female; FH, familial history of CAD; HPL, hyperlipidaemia; HTN, hypertension; hypoTN, hypotension; IC, intracoronary; inf, inferior; IV, intravenous; Jpn, Japanese; LAD, left anterior descending artery; lat, lateral; LCx, left circumflex artery; M, male; N/A, not available; NOCAD, non-occlusive coronary artery disease; NSVT, non-sustained VT; PCI, percutaneous coronary intervention; Pre-op, pre-operative; PVCs, premature ventricular complexes; RCA, right coronary artery; SL, sublingual; ST-elev, ST-elevation; TdP, torsades de pointes; VF, ventricular fibrillation; VT, ventricular tachycardia; WMA, wall motion abnormality.

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PHYSIOPATHOLOGIE

- Dobutamine active les récepteurs β1
- Dobutamine active les récepteurs β2
- Dobutamine active les récepteurs α1 adrénergiques
- **Stimulation inotrope et chronotrope →augmentation des besoins myocardiques en oxygène →augmentation débit coronaire (régulé par la libération de N.O par l'endothelium)**
- Dobutamine induit une Vasoconstriction paradoxale si athérosclérose coronaire.

MERCI