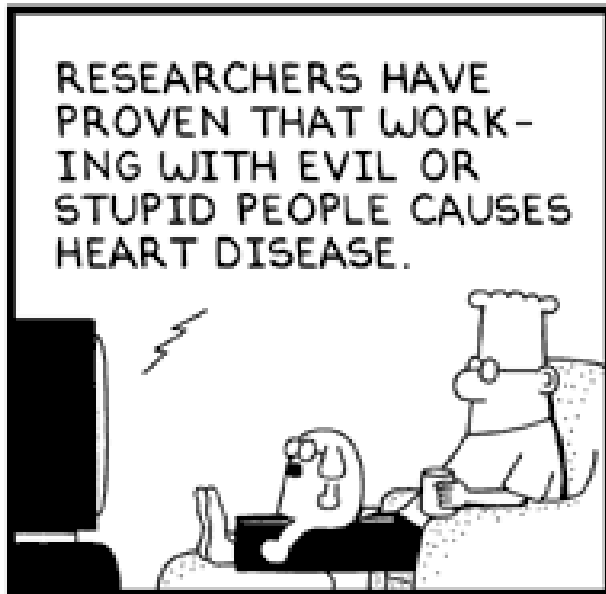


EKG Conference

David Stultz, MD
Cardiology Fellow, PGY 6
August 16, 2005



www.dilbert.com scottadams@aol.com



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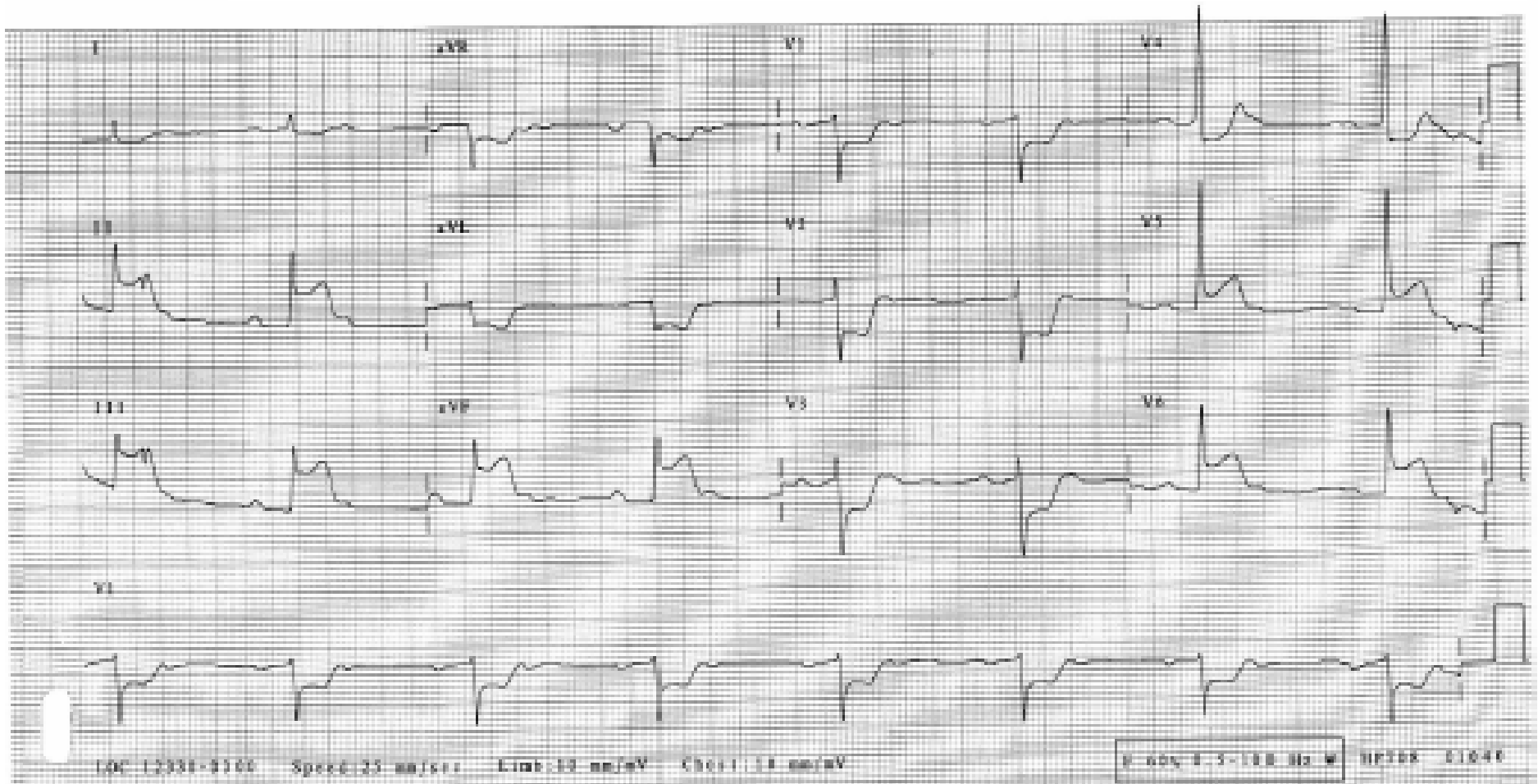
67 years Male Black

Dept: 7790
Room: 80-1
Oper: 6563

Rate 46
PR 187
QRSD 15
QT 387
QTc 343

--AXIS--
P 16
QRS 19
T 55

- Inferior Infarct
- Sinus Rhythm, 2:1 conduction
- 1st degree AV block
- 100% mid Cx



Room: OPT
Loc: 2

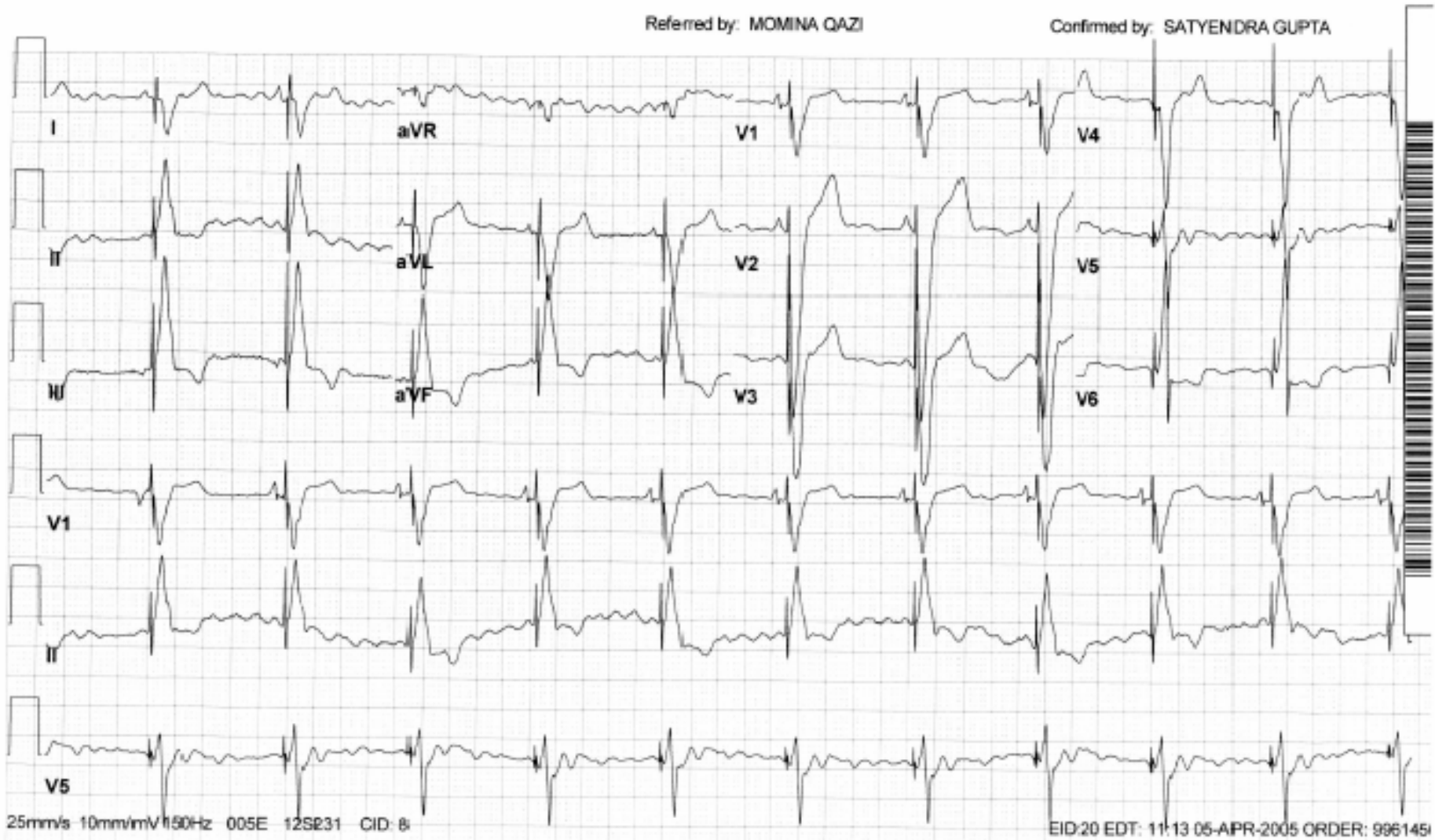
Vent. rate	66	BPM
PR interval	112	ms
QRS duration	168	ms
QT/QTc	440/461	ms
P-R-T axes	-43 92	-55

- Sinus Rhythm
- Right Ventricular Pacing

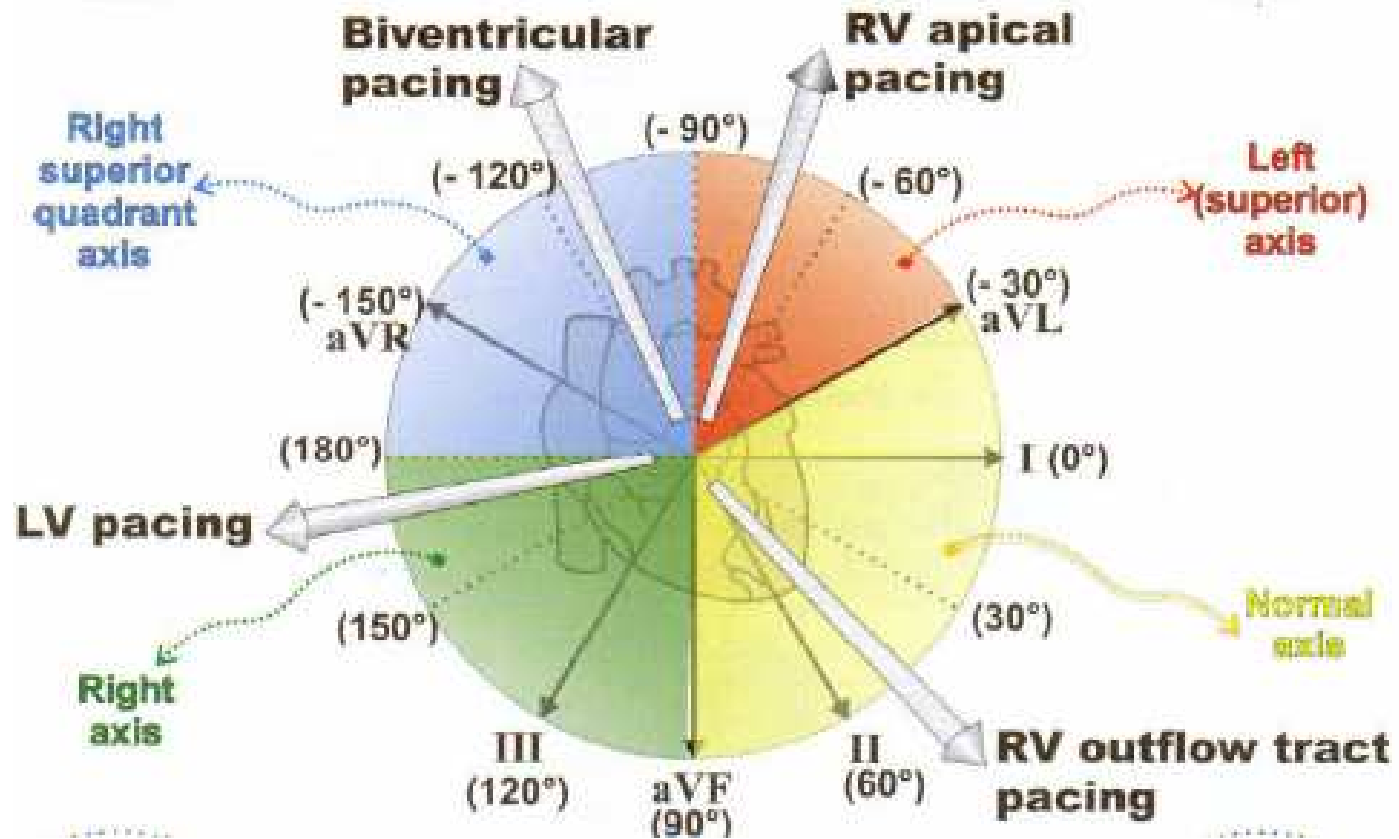
Technician: ELISE WATKINS
Test ind: CARDIO PACEMAKER

Referred by: MOMINA QAZI

Confirmed by: SATYENDRA GUPTA



Pacing axis



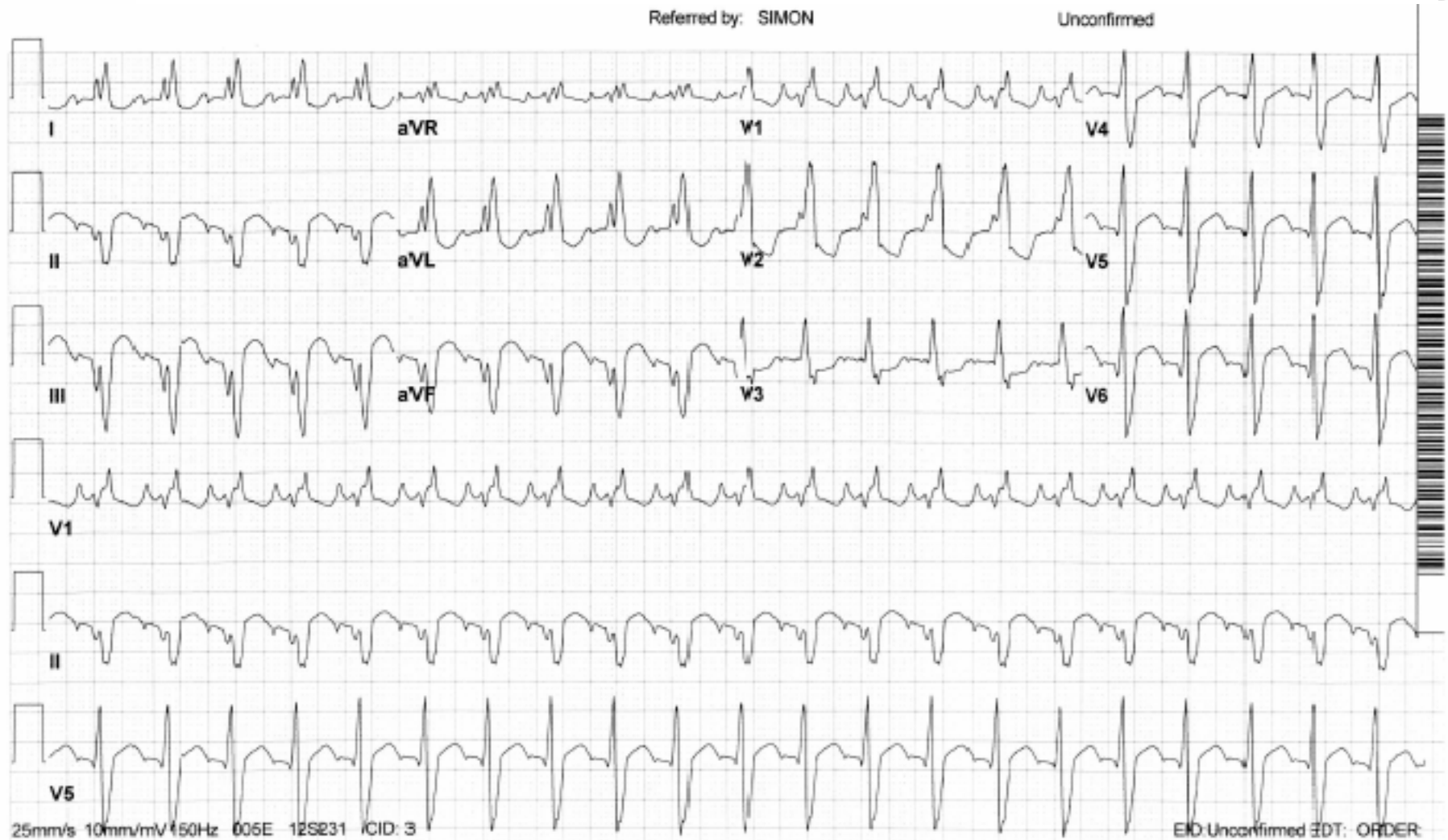
57 yr
Male

Room 3S
Loc:2

Vent. rate	129	BPM
PR interval	126	ms
QRS duration	162	ms
QT/QTc	352/515	ms
P-R-T axes	123 -64	103

- Atrial Tachycardia
- LAD
- Inferior infarct, old
- RBBB
- Note inverted p waves in II

Same Patient...

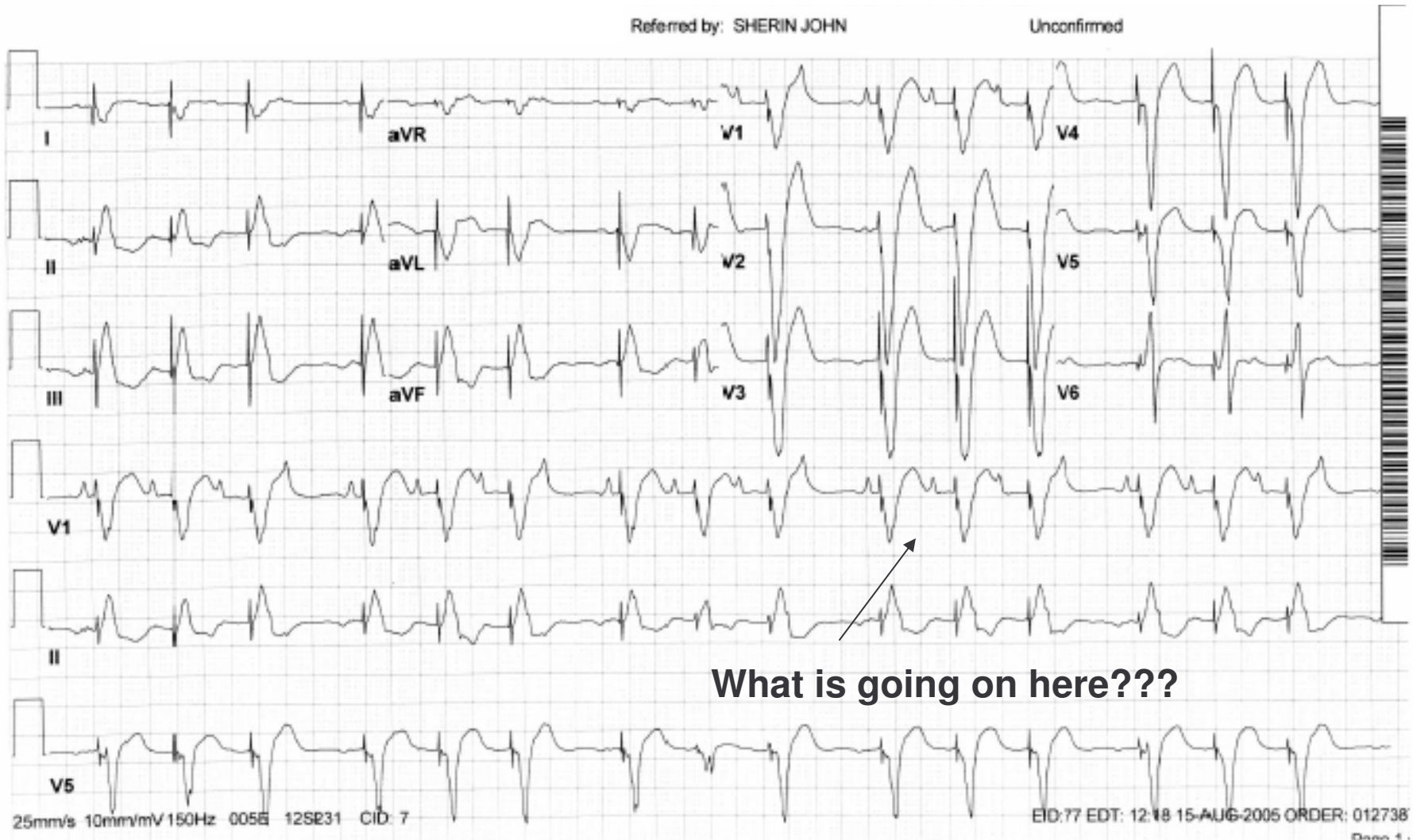


Vent. rate	94	BPM
PR interval	*	ms
QRS duration	176	ms
QT/QTc	376/470	ms
P.R.T wave	-79 36	-76

Loc:3

- Atrial Tachycardia
- Right ventricular pacing
- Pacemaker Wenkebach/Upper rate behavior
- ...To be discussed later

Same Patient...



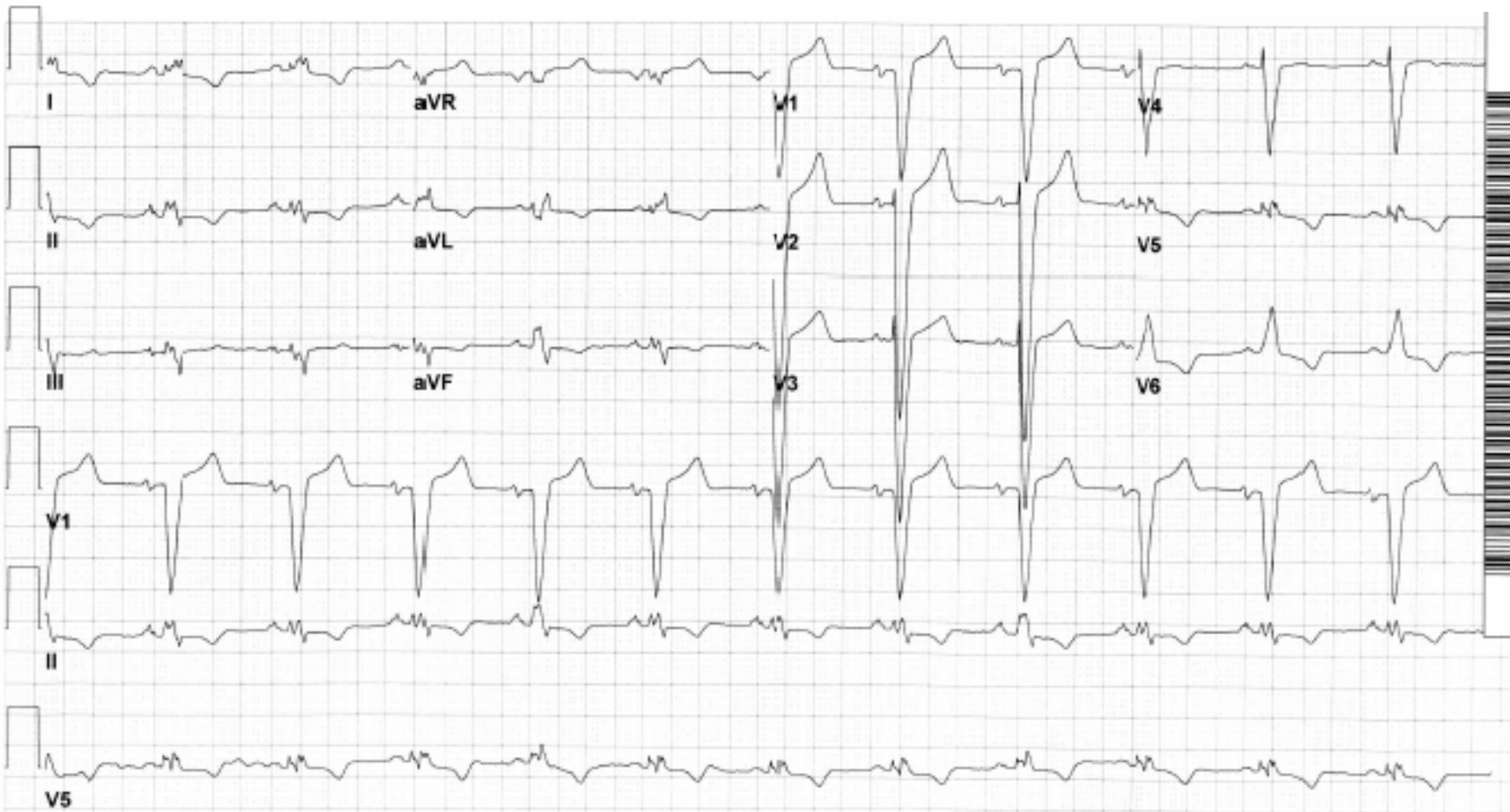
20-JUN-2005 15:48:43

VA MEDICAL CENTER, DAYTON

Vent rate	70	BPM
PR interval	136	ms
QRS duration	146	ms
QT/QTc	434/468	ms
P-R-T axes	39 -33 -165	

- Sinus rhythm
- LBBB with secondary t wave changes
- LAD

Technician:LISA FANNING

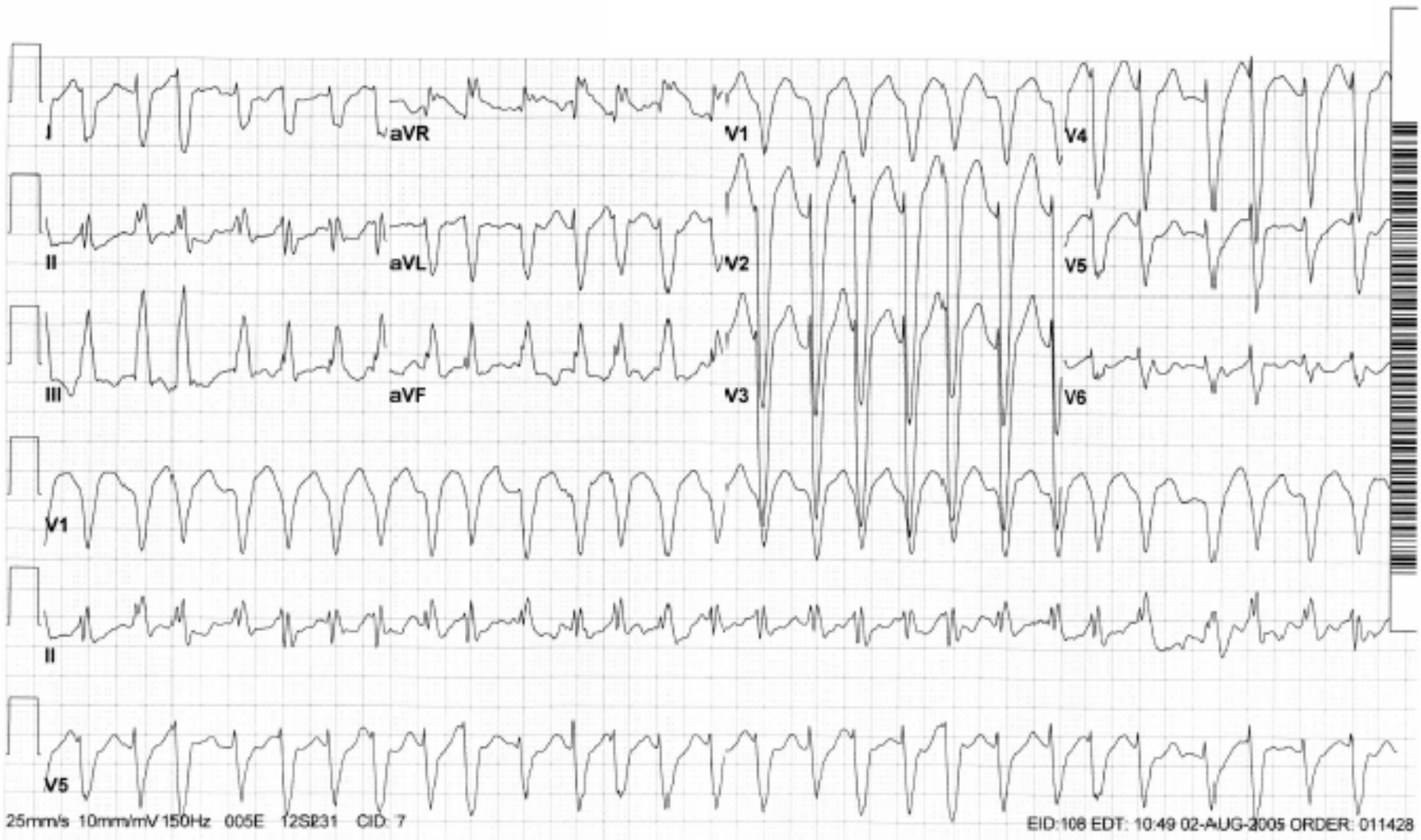


Vent. rate	185	BPM
PR interval	112	ms
QRS duration	144	ms
QT/QTc	286/474	ms
P-R-T axes	-28 135	-82

- Atrial Fibrillation
- Wide complex tachycardia
- Underlying LBBB vs VT?

Same Patient...

Technician: WILLIAM STUPP (R)

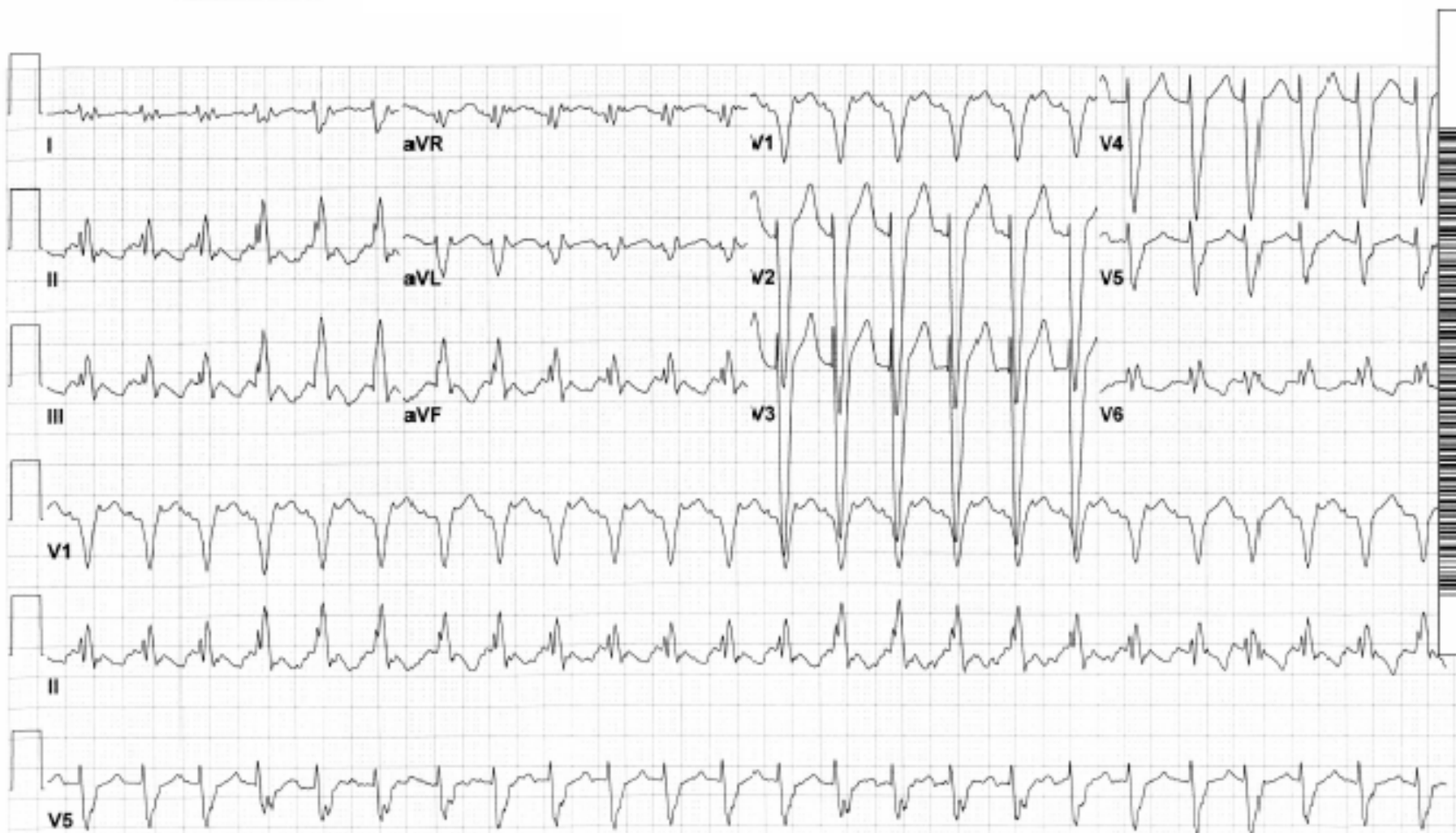


Vent rate	144	BPM
PR interval	*	ms
QRS duration	140	ms
QT/QTc	362/560	ms
P-R-T axes	-97 103	-98

- Regular Wide complex tachycardia
- Underlying LBBB vs VT?

Same Patient...

Technician:ELISE WATH
Test ind:ROUTINE



VT vs SVT with aberreny

1. Triphasic morphology
 - a. rsR' variant in V1
 - b. qRs variant in V₆
 2. Initial deflection identical to normal beat (if RBBB)
 3. Immediately preceding atrial activity
 4. Second-in-the-row phenomenon
 5. Alternating BBB patterns separated by single normal beat
 6. Identical wide QRS pattern previously diagnosed as aberrancy
-

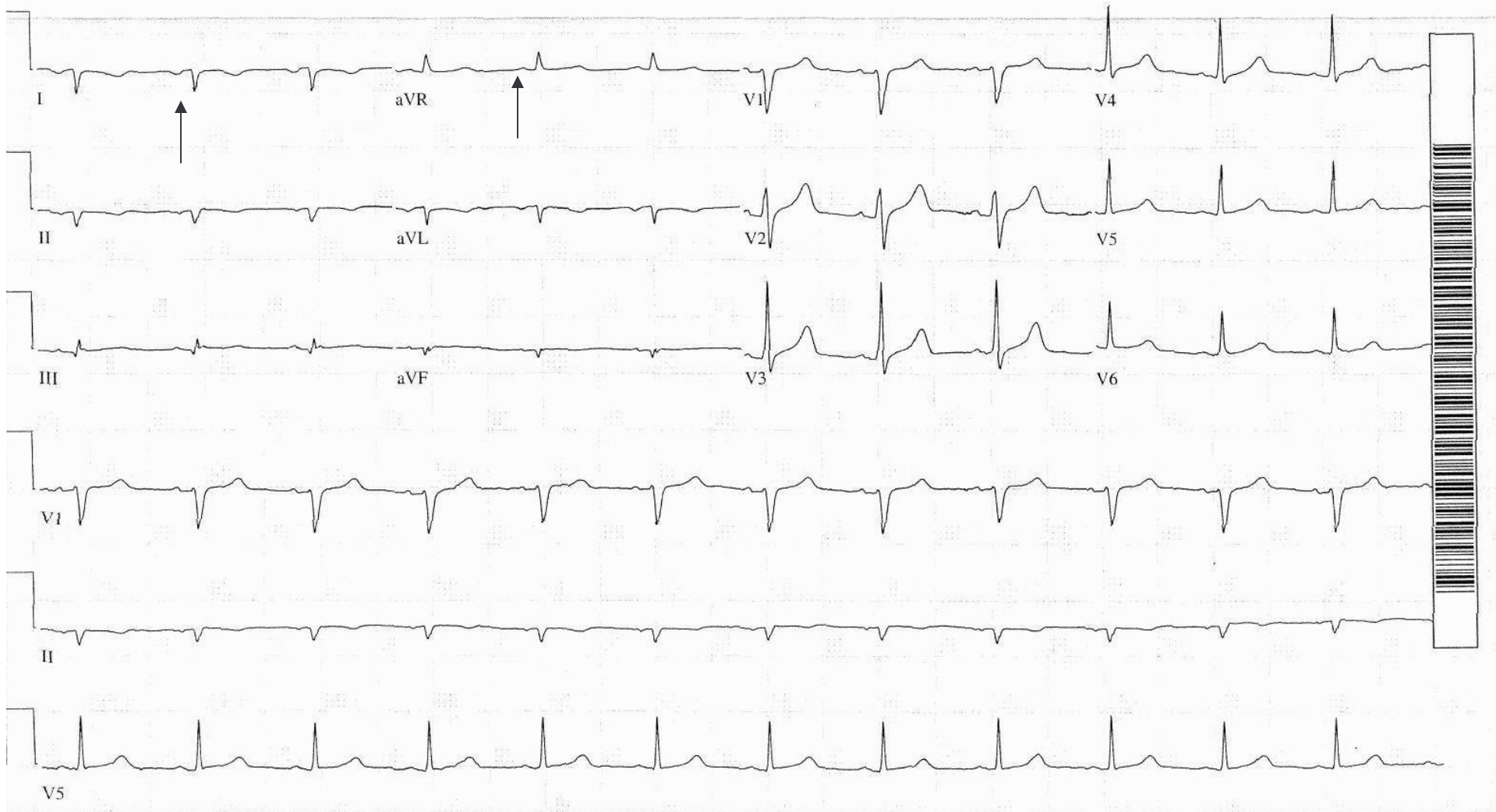
Favors SVT with
aberrancy

Marriott

- AV dissociation
- Fusion/Capture beats
- QRS >0.14s
- Northwest Axis
- Precordial Concordance

Favors VT

Hurst



Arm lead reversal

04-AUG-2005 16:03:35

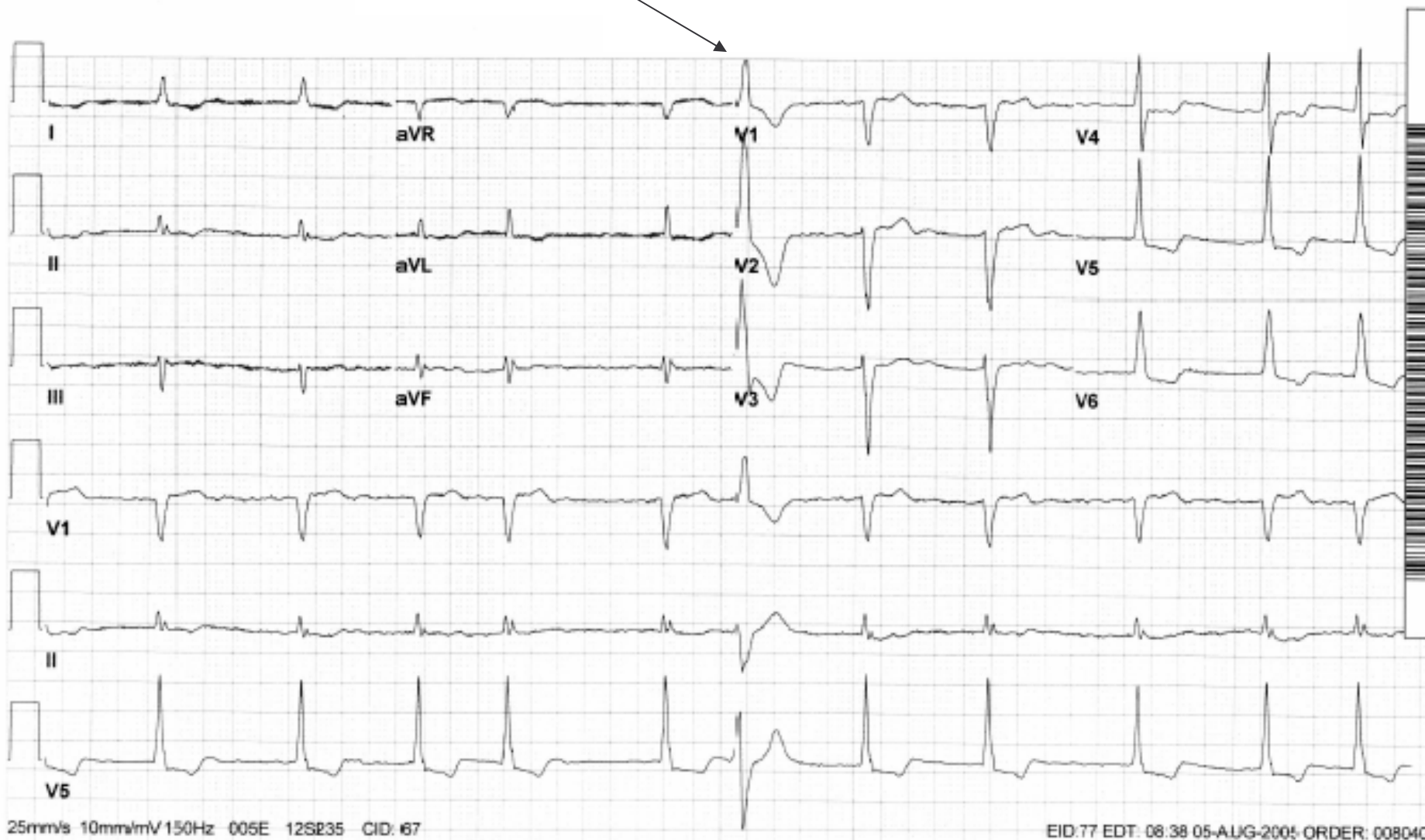
VA MEDICAL CENTER, DAYTON

Vent. rate 68 BPM
PR interval * ms
QRS duration 108 ms
QT/QTc 378/401 ms
P-R-T axes * 0 159

i complex

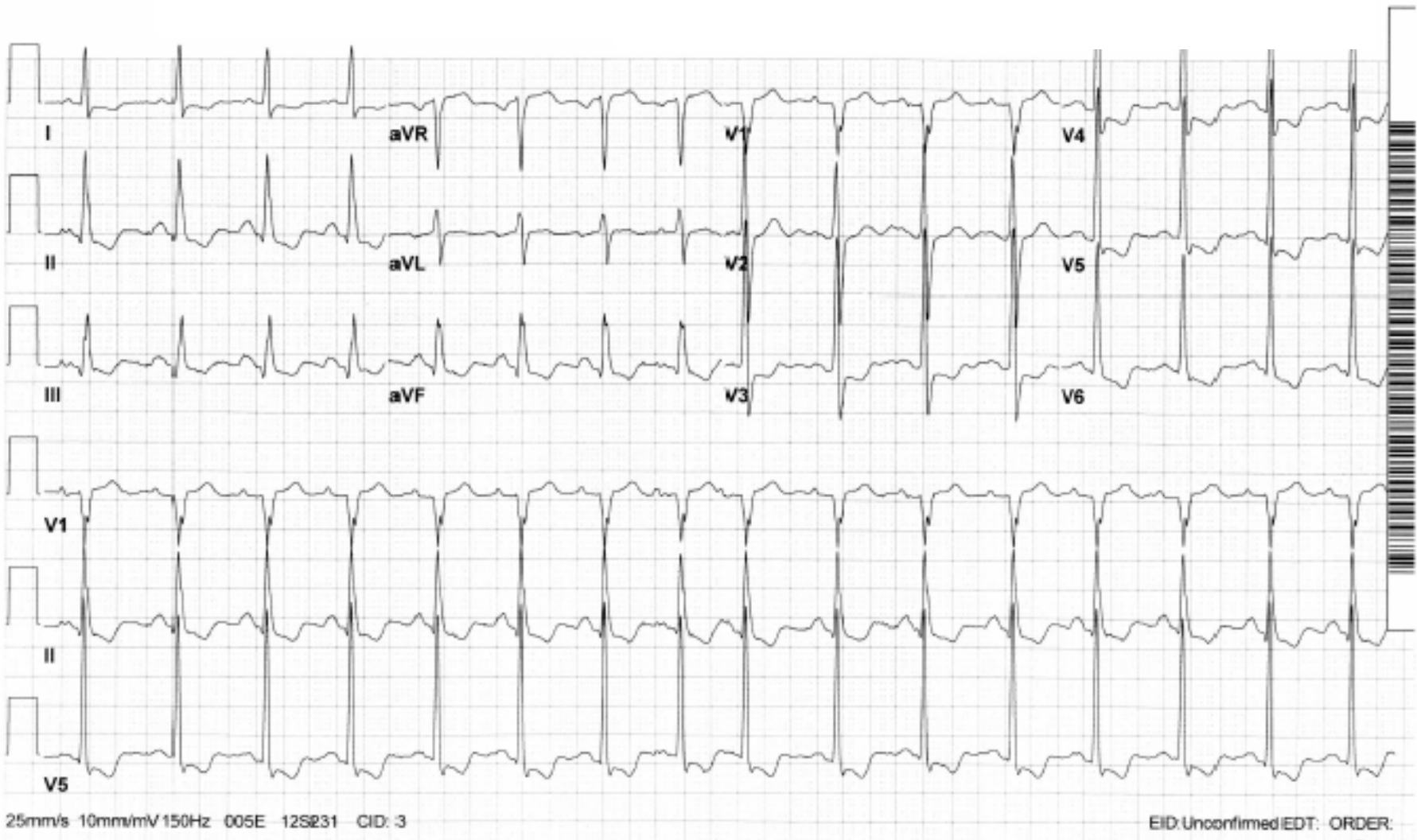
- Atrial Fibrillation
- Ashman phenomena
- Inferior/Lateral t wave changes

Technician: EDIE WRIGI
Test ind: SOB



Vent. rate	95	BPM
PR interval	152	ms
QRS duration	114	ms
QT/QTc	322/404	ms
P-R-T axes	80 60	-124

- Sinus rhythm
- LVH
- Secondary ST-T changes

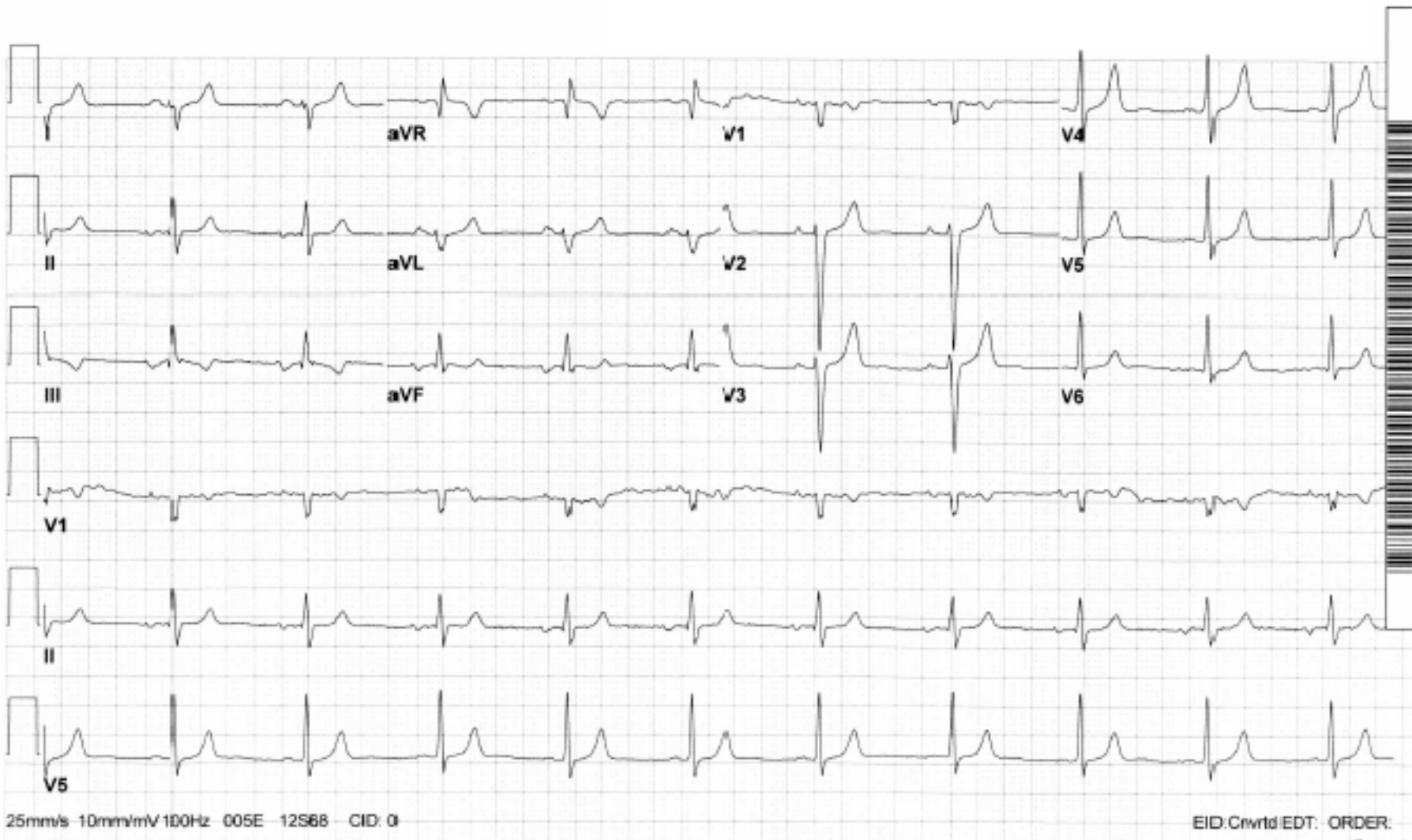


28-MAY-1992 14:33:00

VA MEDICAL CENTER, DAYTON

Vent. rate	62	BPM
PR interval	152	ms
QRS duration	104	ms
QT/QTc	392/398	ms
P-R-T axes	-52 128	6

- Sinus vs ectopic atrial rhythm
- Left posterior fascicular block



25mm/s 10mm/mV 100Hz 005E 12S68 CID: 0

EID: Crrtd EDT: ORDER:

Fascicular Blocks

QRS Duration <120ms

LAHB (LAFB)

Severe LAD without explanation

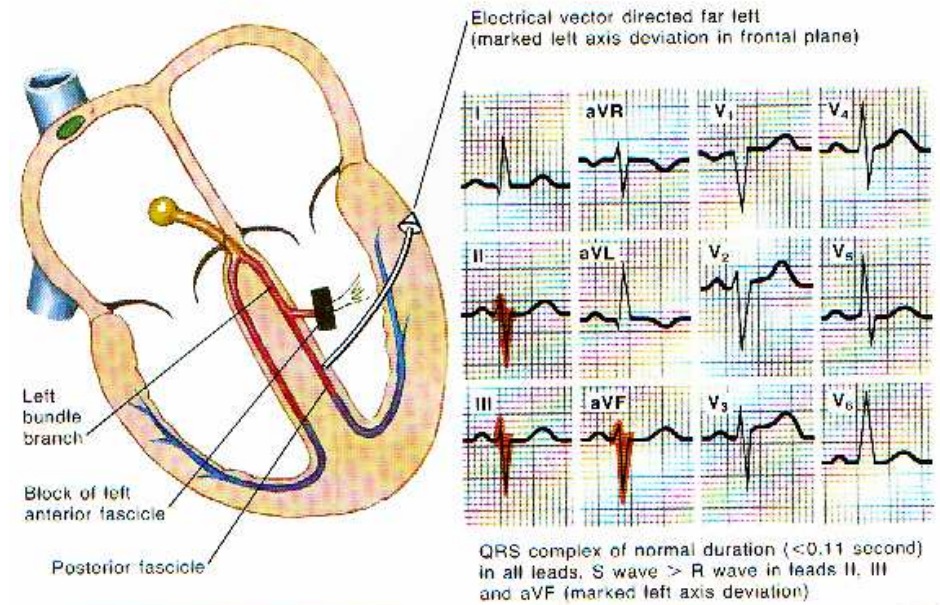
- Deep S waves in II, III, aVF
- Frontal Axis <-45 to -60 degrees
- Positive in I, Negative in aVF
- Not explained by LBBB, LVH, inferior infarct

LPHB (LPFB)

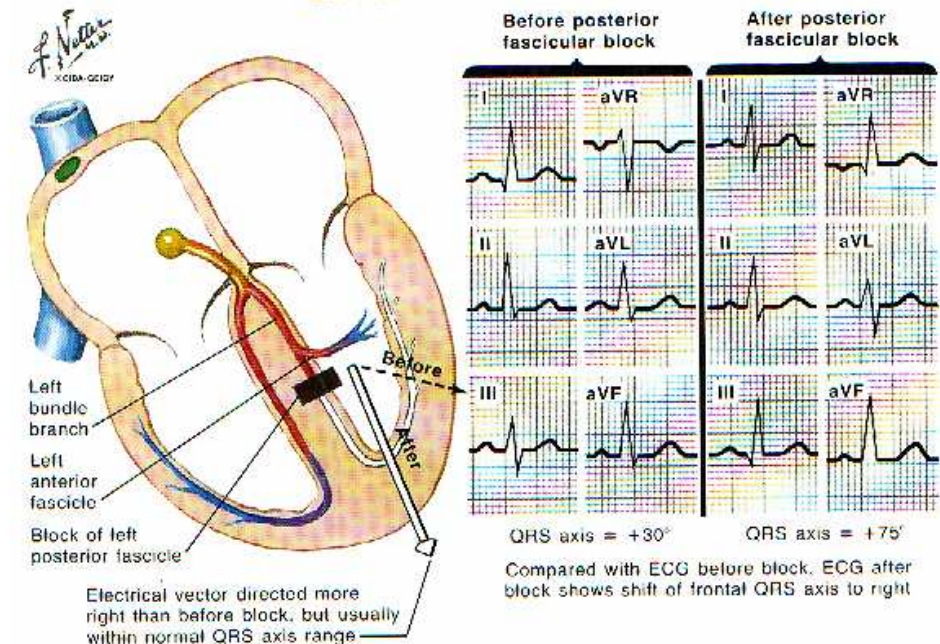
Opposite of LAFB, Rare

- Usually Right Axis deviation
- Negative in I, Positive in aVF
- Positive in II, III, aVF
- Not explained by RVH, anterolateral infarct

Left Anterior Fascicular Block



Left Posterior Fascicular Block

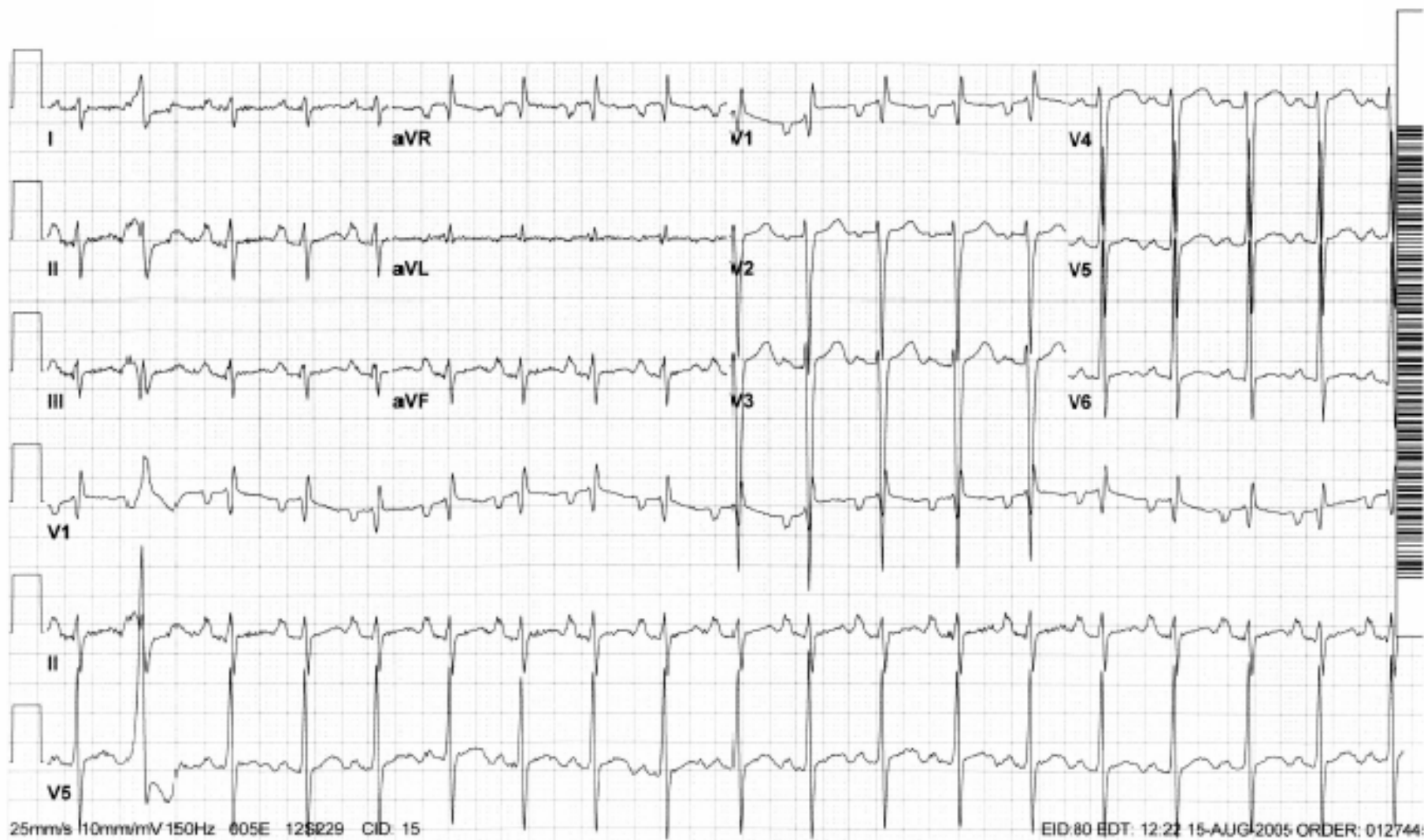


14-AUG-2005 04:49:11

VA MEDICAL CENTER, DAYTON

Vent. rate	111	BPM
PR interval	178	ms
QRS duration	96	ms
QT/QTc	344/467	ms
P-R-T axes	70-114	77

- Sinus rhythm
- Batrial abnormality



25mm/s 10mm/mV 150Hz 005E 126229 CID: 15

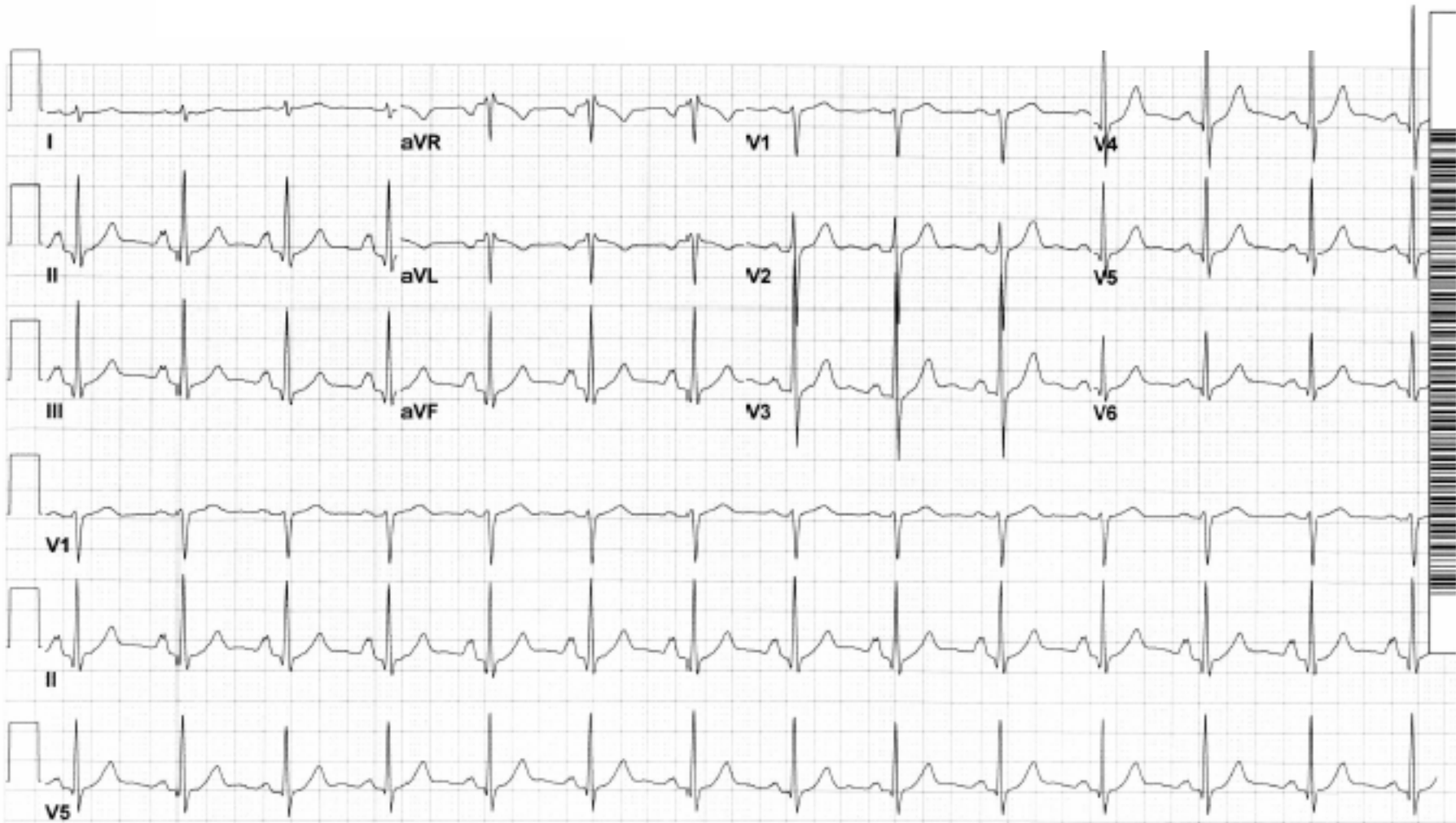
EID:80 EDT: 12:22 15-AUG-2005 ORDER: 012744

15-AUG-2005 11:23:40

VA MEDICAL CENTER, DAYTON

Vent. rate	81	BPM
PR interval	156	ms
QRS duration	96	ms
QT/QTc	354/411	ms
P-R-T axes	85 92	83

- Sinus rhythm
- Right atrial abnormality

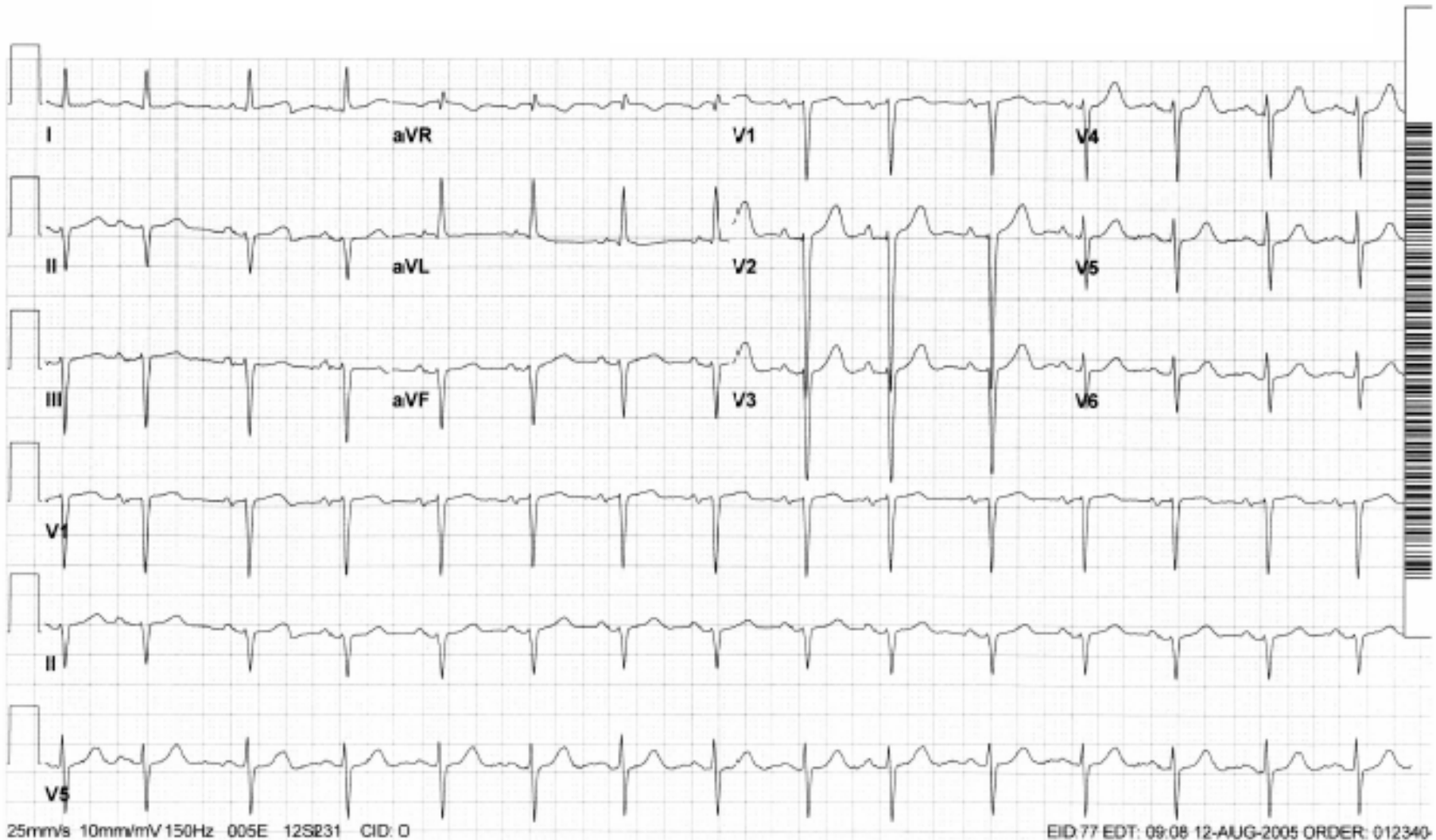


11-AUG-2005 17:16:17

VA MEDICAL CENTER, DAYTON

Vent. rate	88	BPM
PR interval	156	ms
QRS duration	88	ms
QT/QTc	348/421	ms
P-R-T axes	66 -60	69

- Sinus rhythm
- Left anterior fascicular block
- Old anteroseptal infarct
- LVH (Cornell)



25mm/s 10mm/mV 150Hz 005E 12S231 CID: 0

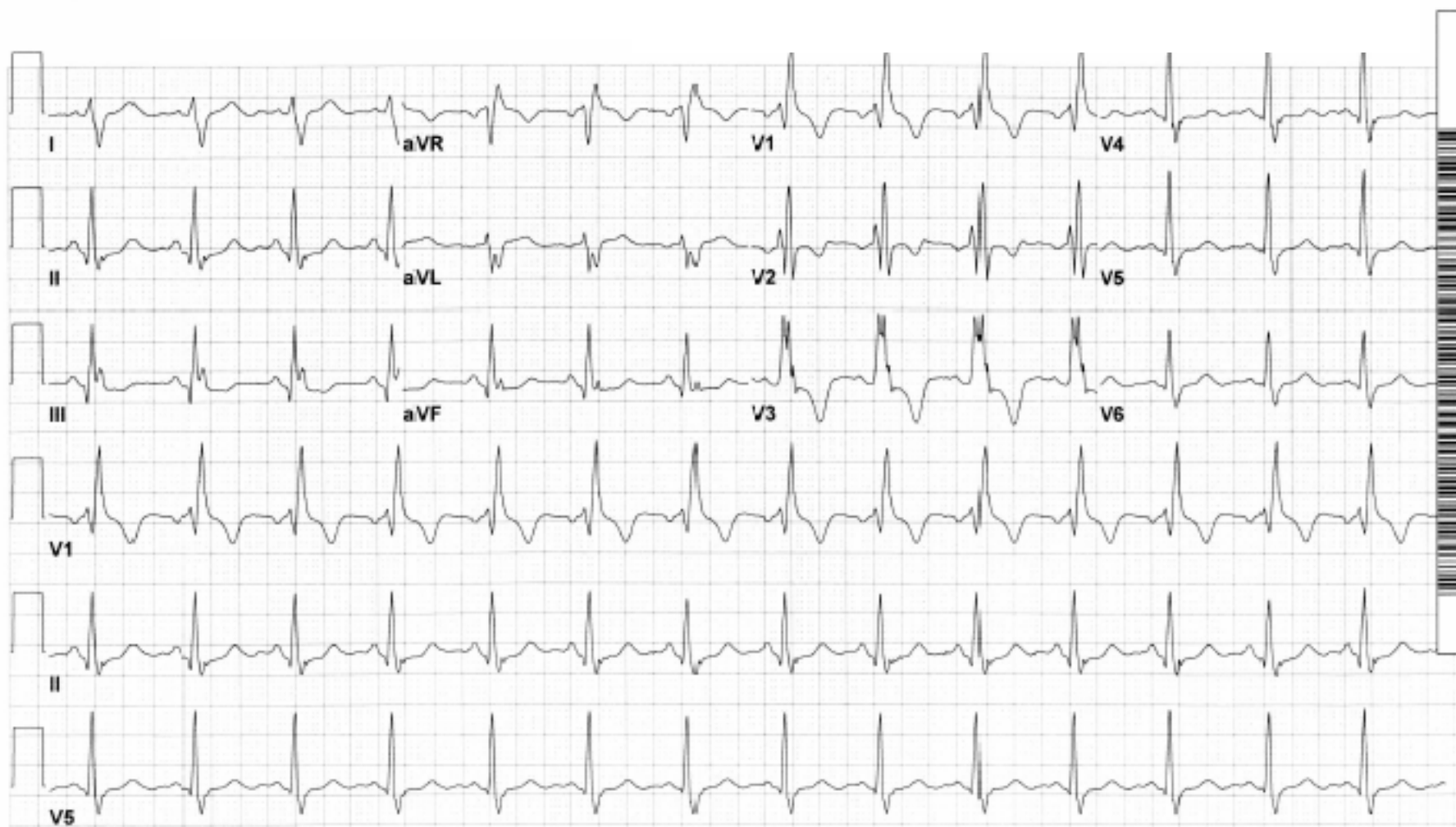
EID:77 EDT: 09:08 12-AUG-2005 ORDER: 012340

10-AUG-2005 23:49:52

VA MEDICAL CENTER, DAYTON

Vent. rate	85	BPM
PR interval	130	ms
QRS duration	150	ms
QT/QTc	422/502	ms
P-R-T axes	77 99	35

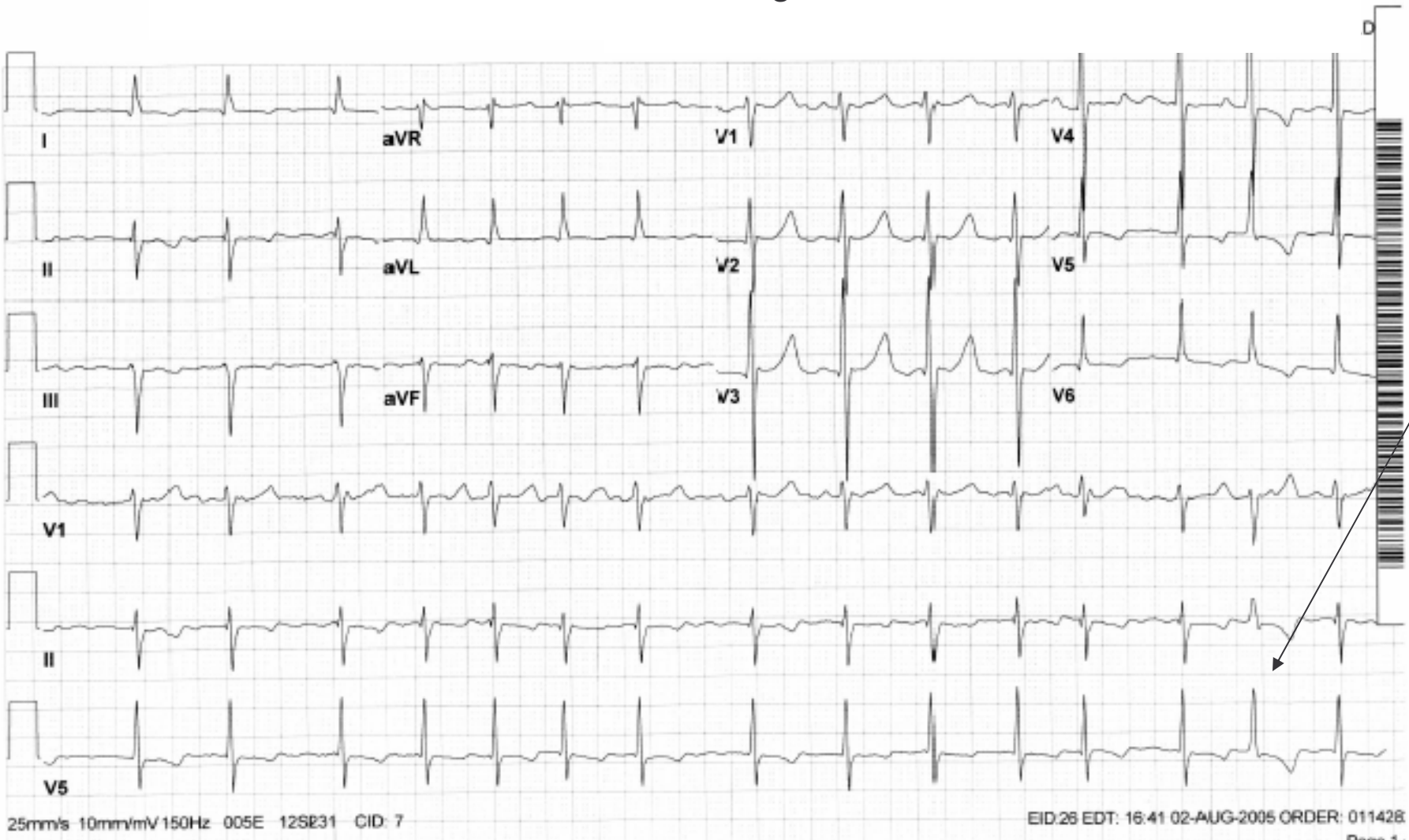
- Sinus rhythm
- RBBB with secondary T wave changes



Vent. rate	93	BPM
PR interval	*	ms
QRS duration	104	ms
QT/QTc	418/520	ms
P-R-T axes	-112 -58 -118	

- Atrial Fibrillation
- LAFB
- Ashman phenomena
- Long QTc

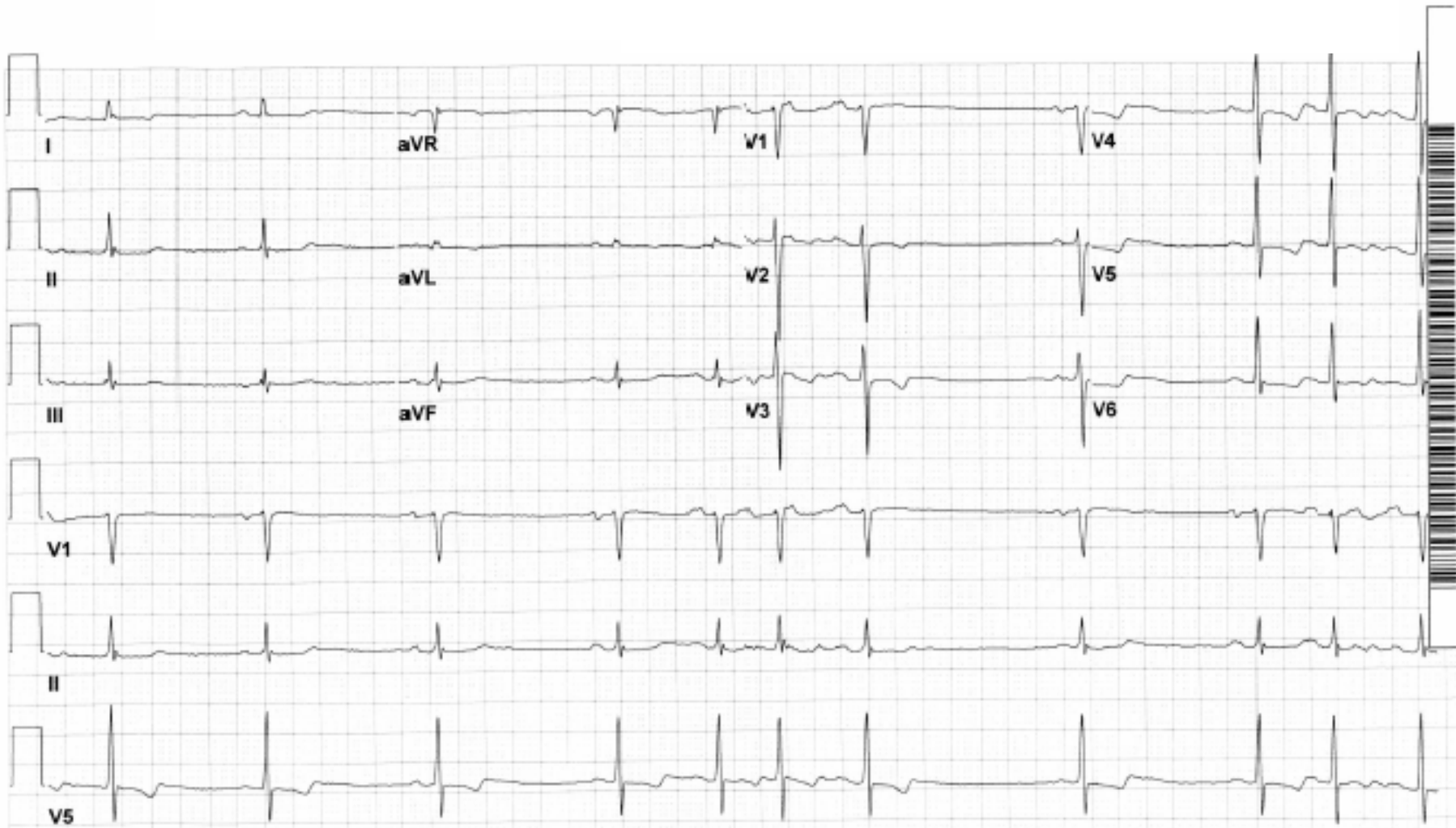
te 1r



Vent. rate	63	BPM
PR interval	*	ms
QRS duration	84	ms
QT/QTc	344/352	ms
P-R-T axes	45 46	170

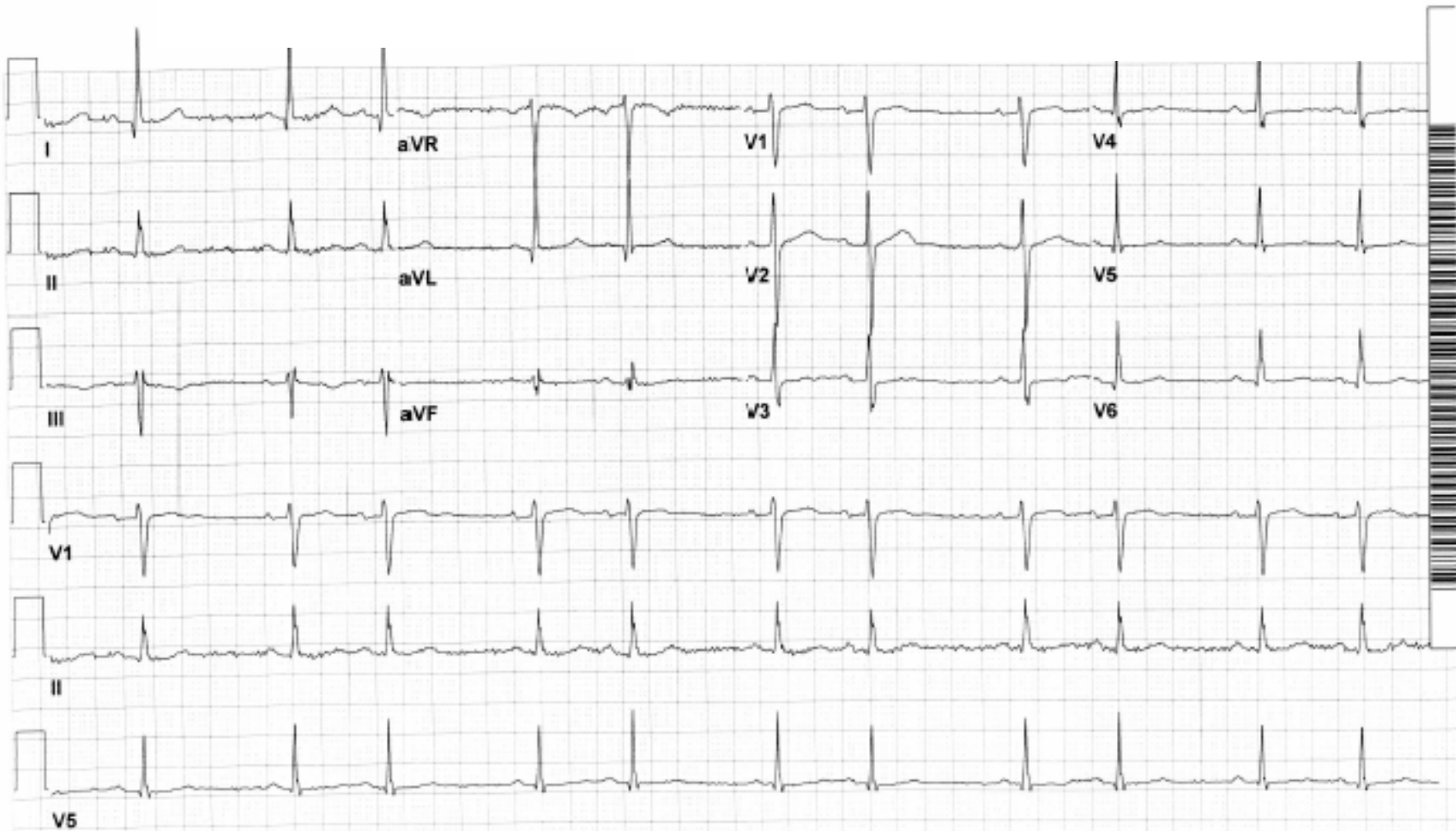
supra

- Sinus rhythm (bradycardia)
- PAC's
- Anterolateral t wave changes



Vent. rate	68	BPM
PR interval	176	ms
QRS duration	92	ms
QT/QTc	348/370	ms
P-R-T axes	43 2	-8

- Sinus rhythm
- SA exit block (Wenkebach 3:2)

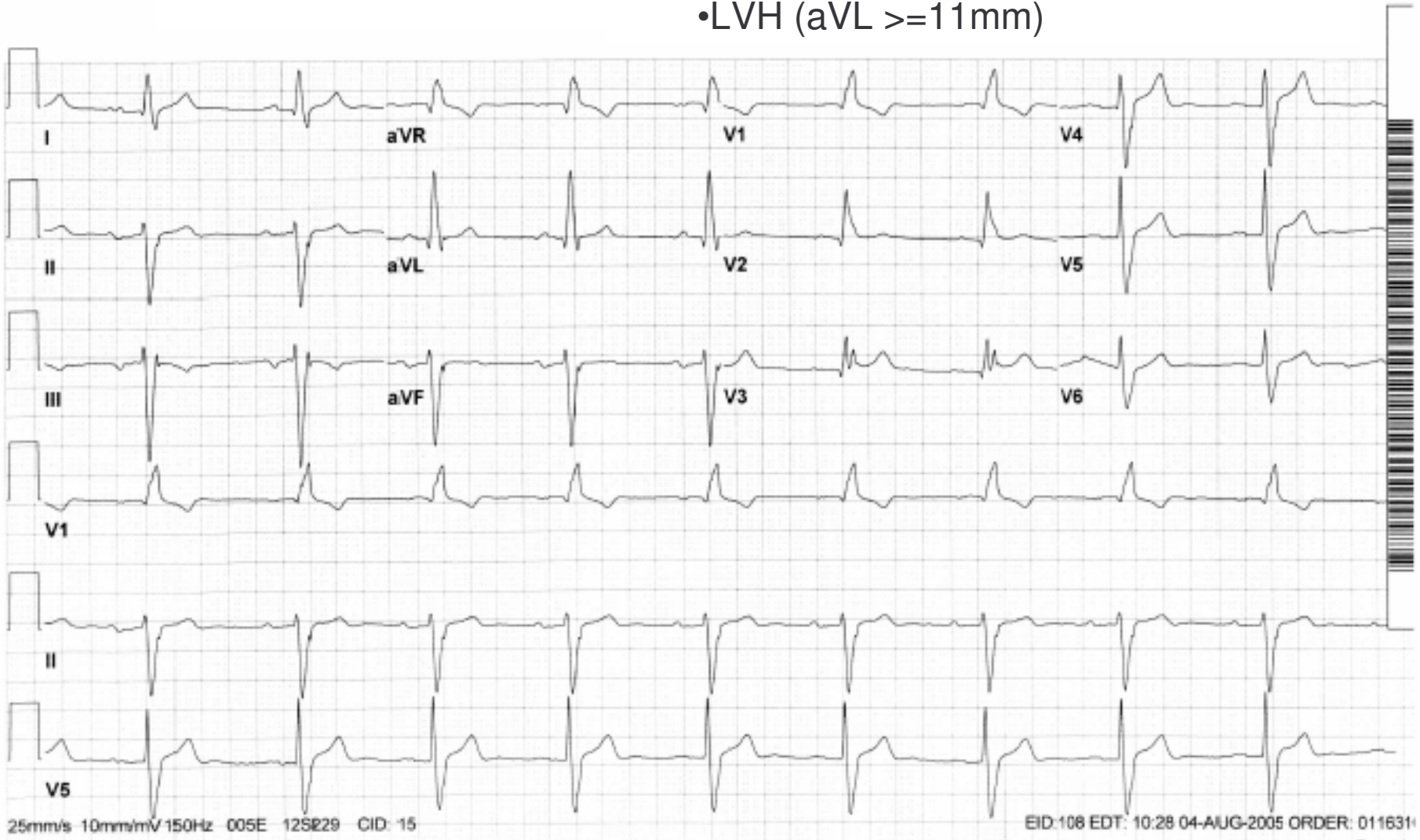


03-AUG-2005 08:17:05

VA MEDICAL CENTER, DAYTON

Vent. rate	57	BPM
PR interval	222	ms
QRS duration	156	ms
QT/QTc	428/417	ms
P-R-T axes	121 -74	-5

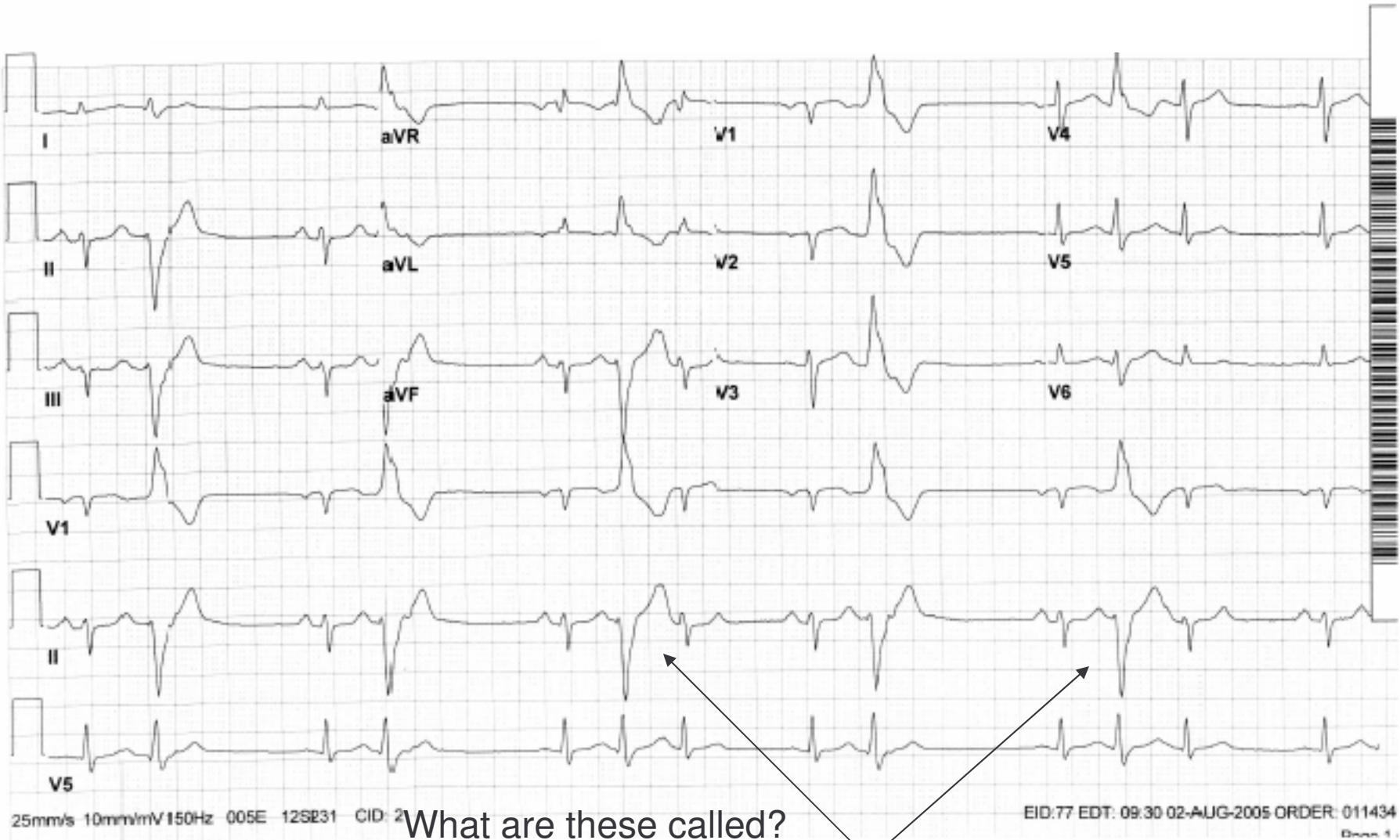
- Sinus rhythm
- RBBB
- LAFB
- (Bifascicular block)
- LVH (aVL ≥ 11 mm)



Vent. rate	77	BPM
PR interval	164	ms
QRS duration	100	ms
QT/QTc	432/488	ms
P-R-T axes	82 -68	71

- Sinus rhythm
- Frequent PVC's
- Interpolated PVC's
- LAFB

te ir



What are these called?

17years
Male

Room:

Vent. rate 211 bpm
PR interval * ms
QRS duration 150 ms
QT/QTc 322/603 ms
P-R-T axes * -52 116

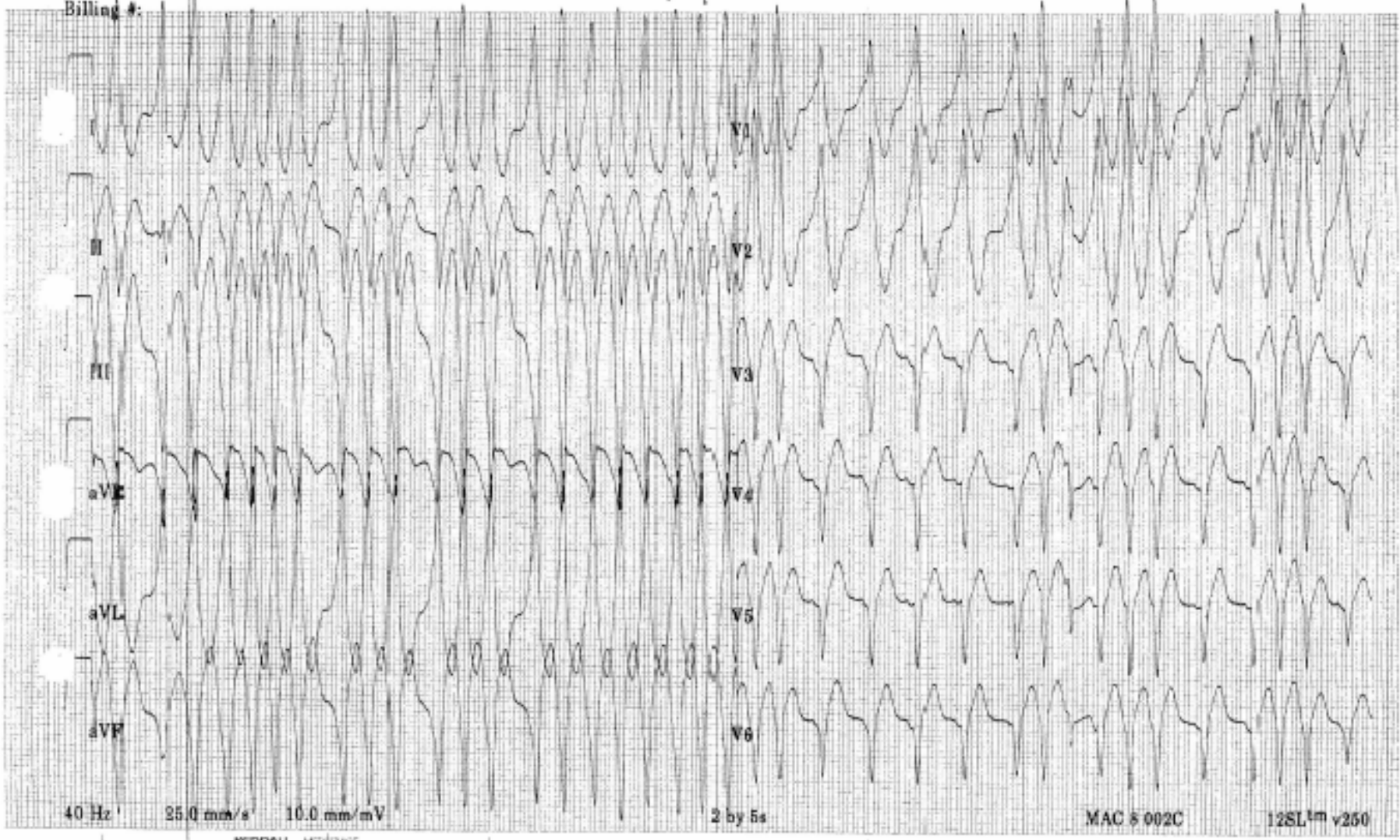
•Atrial Fibrillation with WPW

Technician:

Referred by:

Unconfirmed

Billing #:



40 Hz

25.0 mm/s

10.0 mm/mV

2 by 5s

MAC 8 002C

12SL™ v250