

ECG Interpretation Course

Small group discussion cases

Chapter 1

Hypertrophy and Bundle Branch Block

(for participant use)

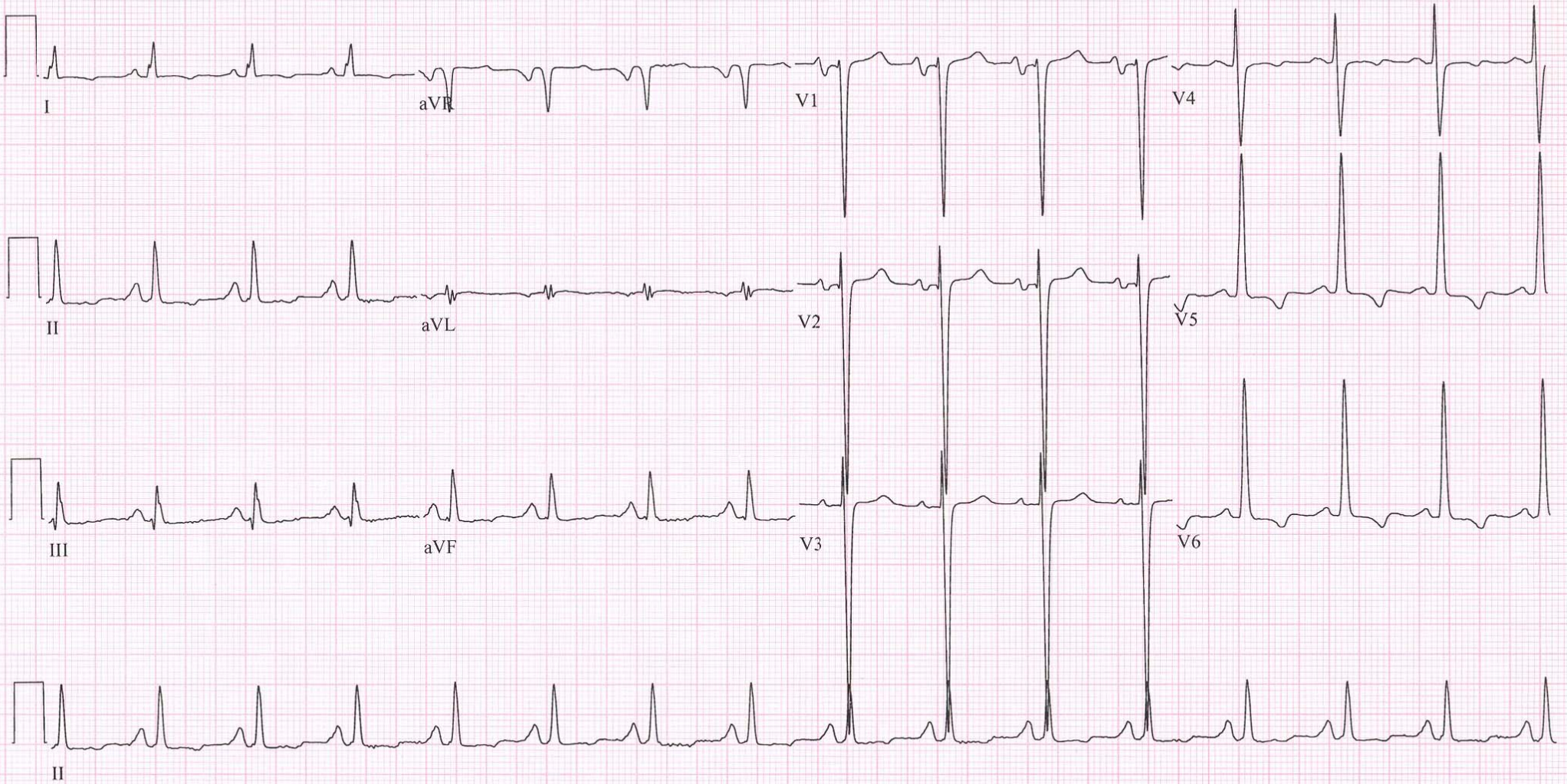
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Case #1: Chapter 1

44 year old Man from Nigeria with Congestive Heart Failure

Referred by: DOCTOR EMERG

Unconfirmed



Case #1 – Chapter 1

44 year old Man from Nigeria with Congestive Heart Failure

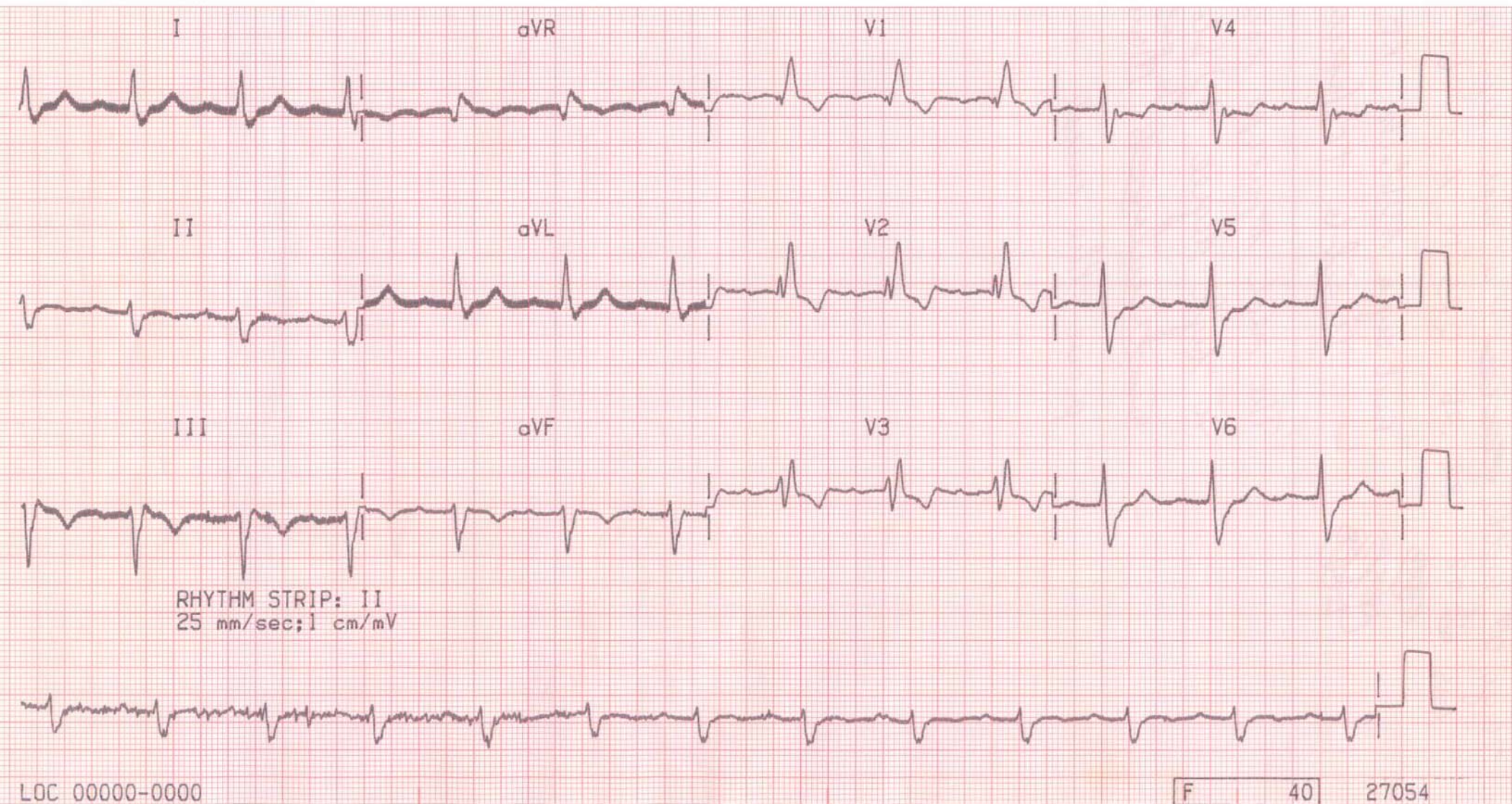
Rate:	Atrial:_____	Ventricular:_____
PR:	_____	
QRS:	_____	
Axis:	_____	
Rhythm:	_____	
Interpretation:	_____	

1. What is the ECG diagnosis?

2. What chambers are involved?

Case #2: Chapter 1

76 year-old with a near syncopal episode



Case #2 – Chapter 1

76 year-old with a near syncopal episode

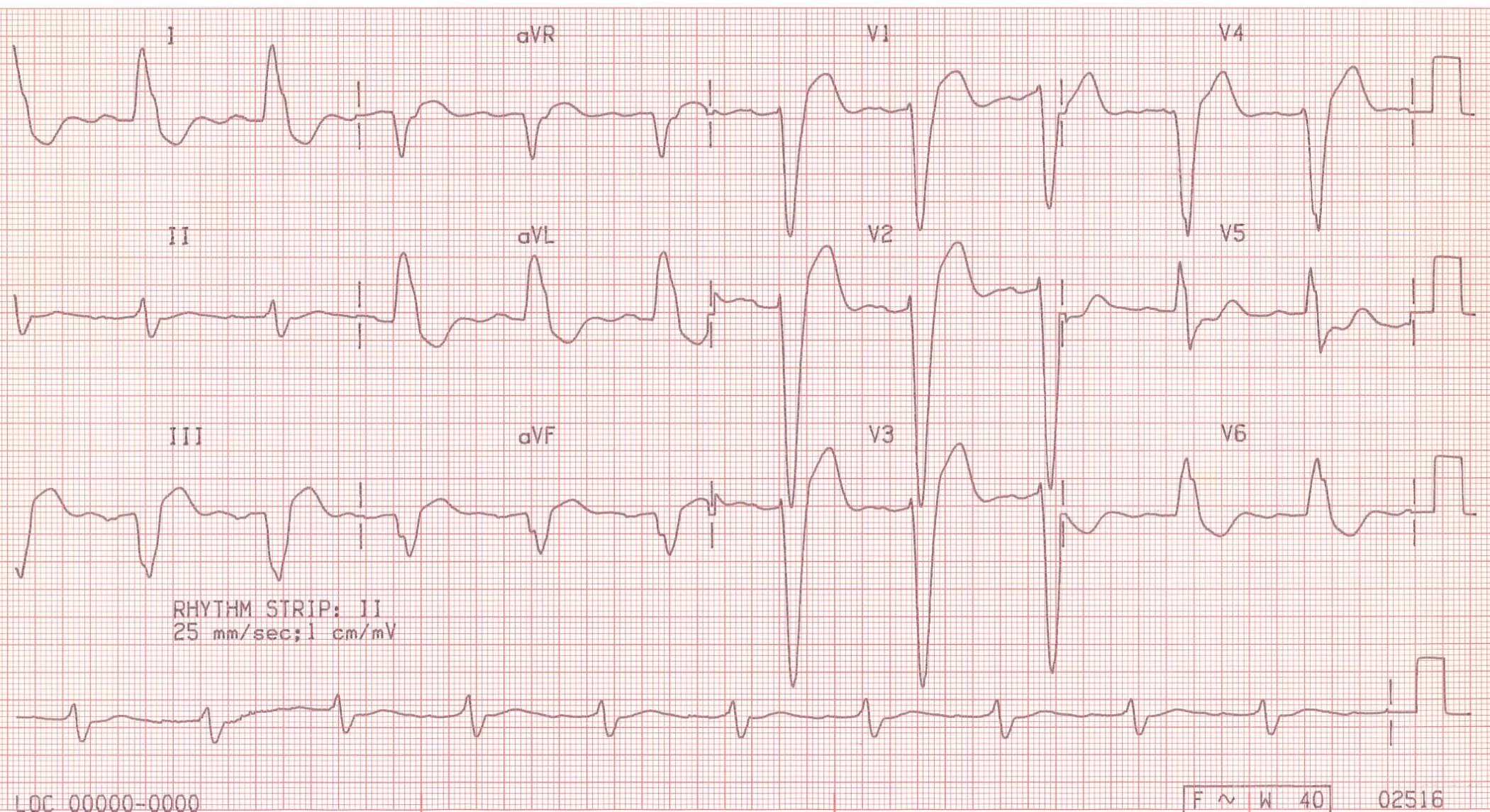
Rate:	Atrial:_____	Ventricular:_____
PR:	_____	
QRS:	_____	
Axis:	_____	
Rhythm:	_____	
Interpretation:	_____	

1. What is the conduction abnormality?

2. What likely caused the syncope?

Case #3: Chapter 1

75 year-old male for elective cholecystectomy



Case #3 – Chapter 1

75 year-old male for elective cholecystectomy

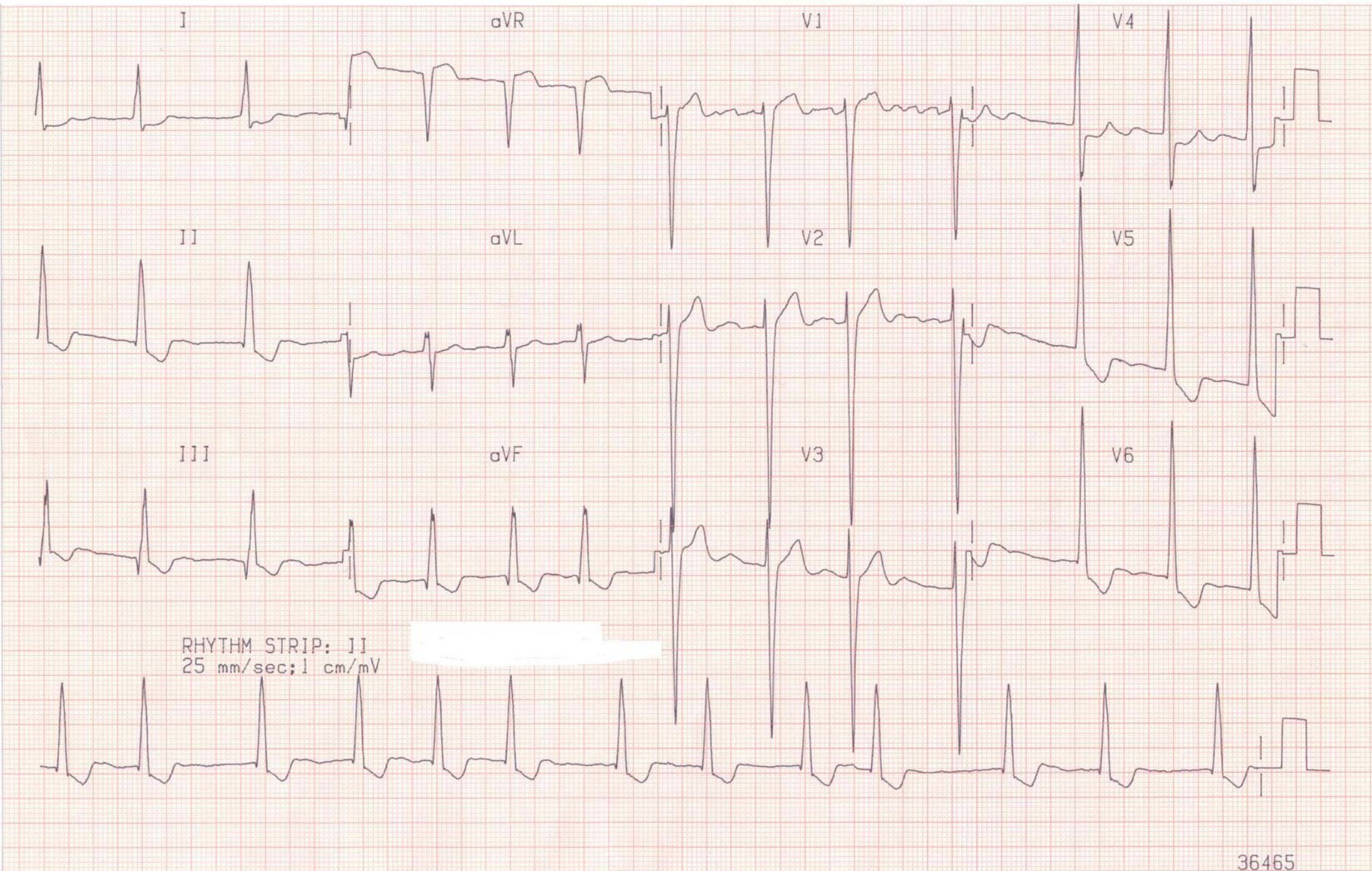
Rate:	Atrial:_____	Ventricular:_____
PR:	_____	
QRS:	_____	
Axis:	_____	
Rhythm:	_____	
Interpretation:	_____	

1. What is the conduction abnormality?

2. He has a dilated cardiomyopathy with a left ventricular ejection fraction of 0.24. What are his perioperative risks?

Case #4 - Chapter 1

56 year-old male with hypertension



Case #4 – Chapter 1

56 year-old male with hypertension

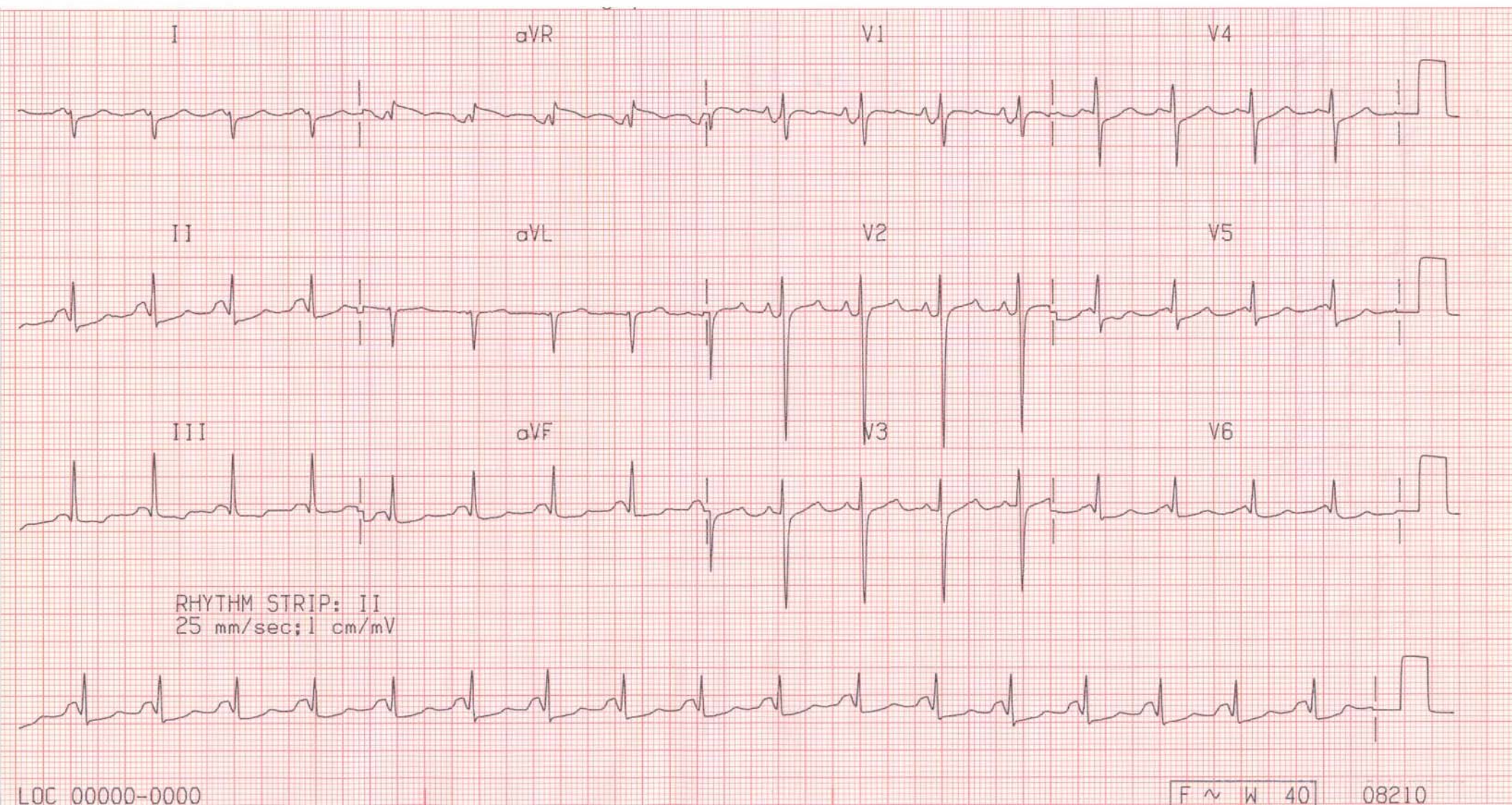
Rate:	Atrial:_____	Ventricular:_____
PR:	_____	
QRS:	_____	
Axis:	_____	
Rhythm:	_____	
Interpretation:	_____	

1. What is the ECG diagnosis?

2. What medication may he be taking?

Case #5: Chapter 1

Severe mitral stenosis. Left hemisphere stroke



Case #5 – Chapter 1

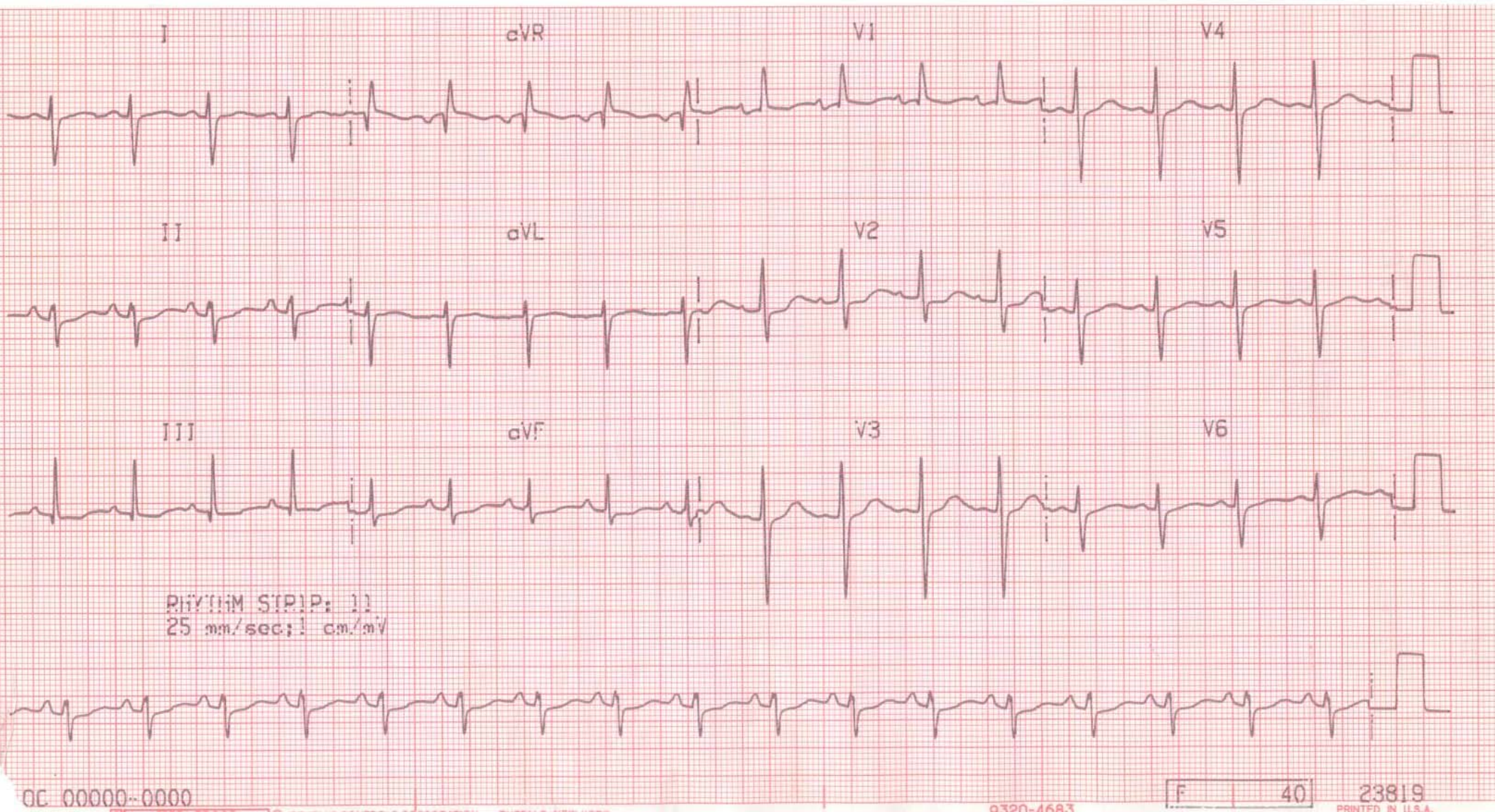
Severe mitral stenosis. Left hemisphere stroke

Rate:	Atrial:_____	Ventricular:_____
PR:	_____	
QRS:	_____	
Axis:	_____	
Rhythm:	_____	
Interpretation:	_____	

1. What chamber(s) is/are enlarged?

2. Why was there a stroke?

Case #6: Chapter 1
Primary pulmonary hypertension



Case #6 – Chapter 1

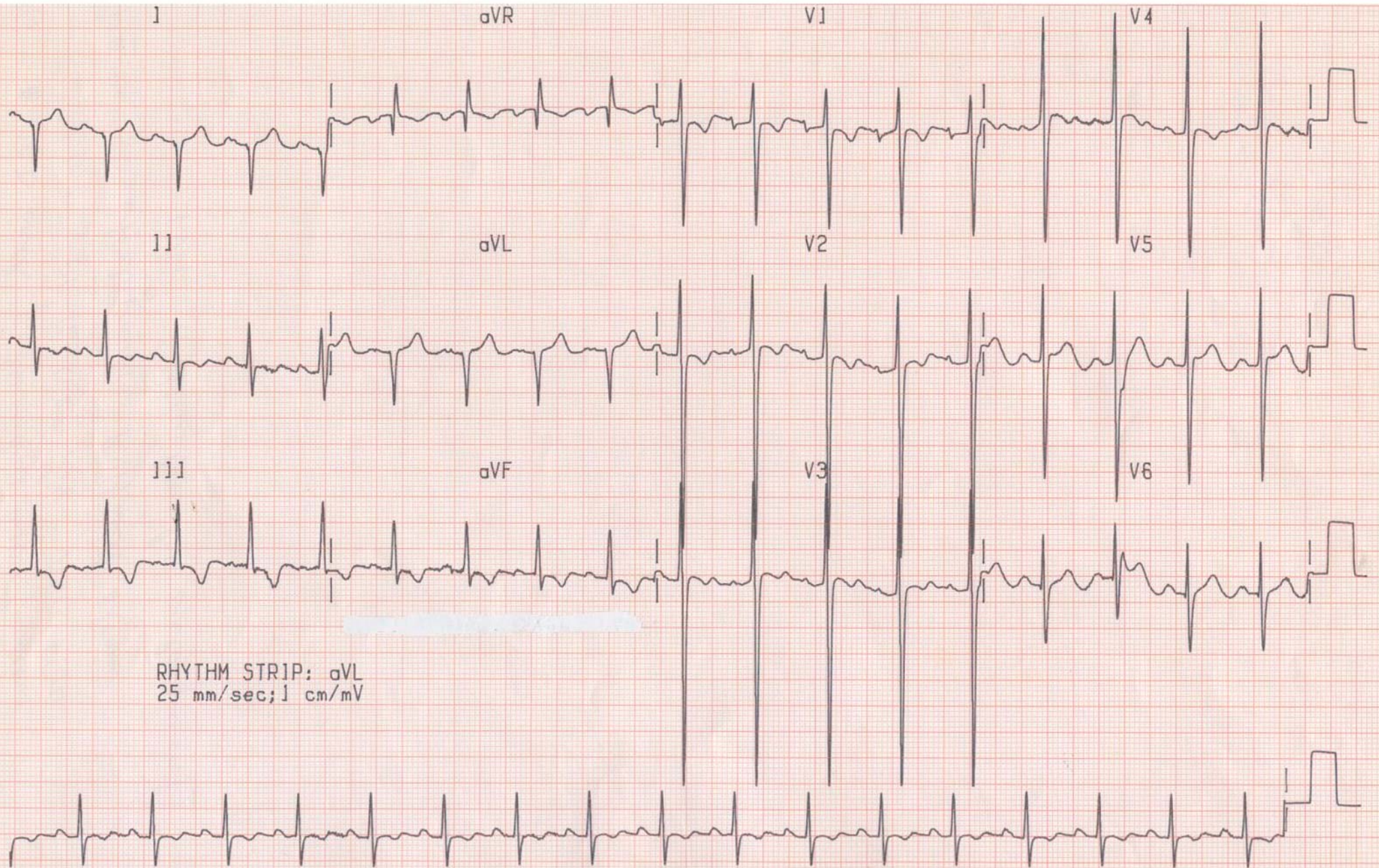
Primary pulmonary hypertension

Rate:	Atrial:_____	Ventricular:_____
PR:	_____	
QRS:	_____	
Axis:	_____	
Rhythm:	_____	
Interpretation:	_____	

1. What chamber(s) is/are enlarged

Case #7: Chapter 1

VSD with pulmonary hypertension



RHYTHM STRIP: aVL
25 mm/sec; 1 cm/mV

Case #7 – Chapter 1

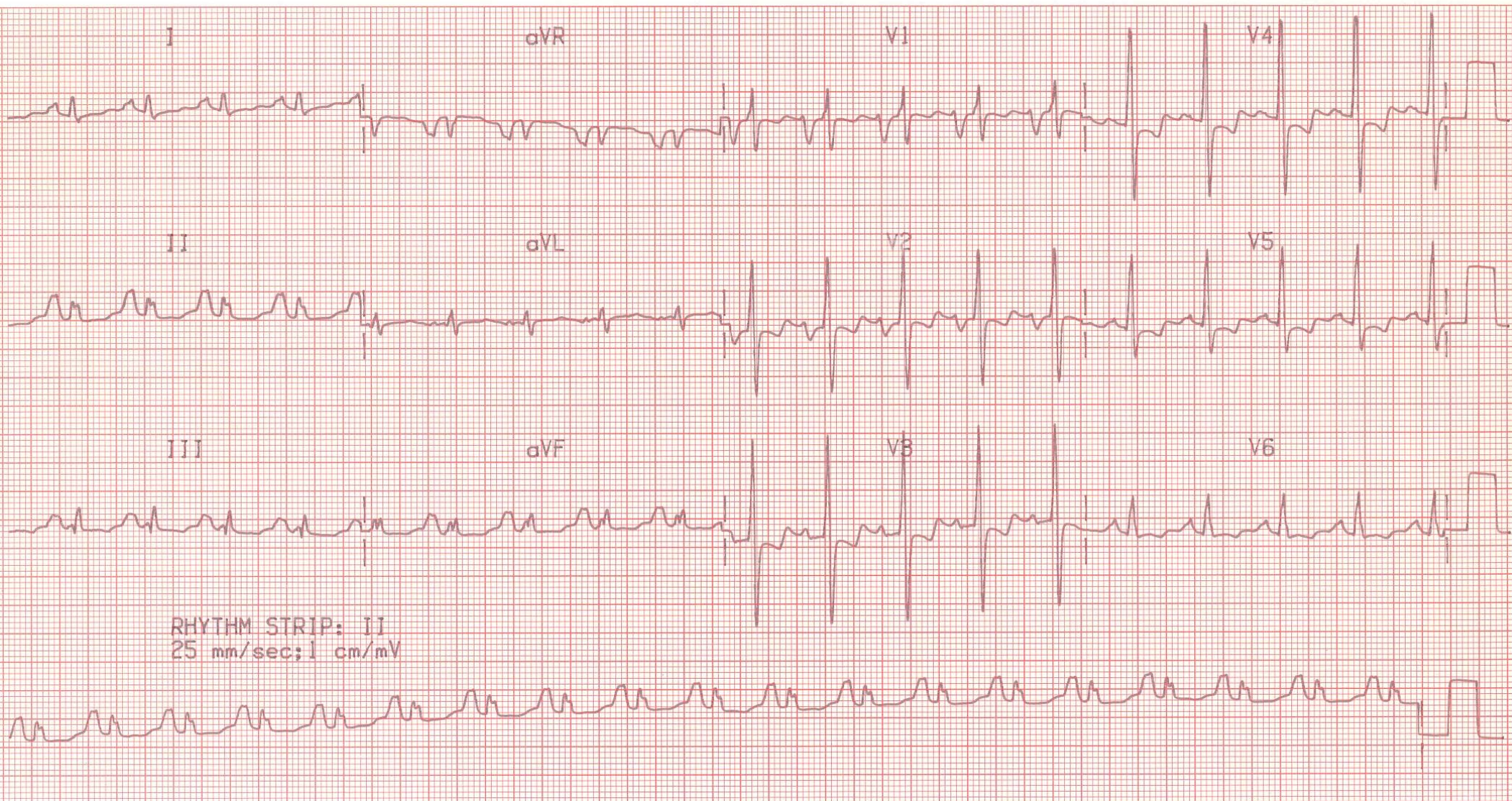
VSD with pulmonary hypertension

Rate:	Atrial:_____	Ventricular:_____
PR:	_____	
QRS:	_____	
Axis:	_____	
Rhythm:	_____	
Interpretation:	_____	

1. What chambers are enlarged?

Case #8: Chapter 1

27 year-old man with idiopathic dilated cardiomyopathy



Case #8 – Chapter 1

27 year-old man with idiopathic dilated cardiomyopathy

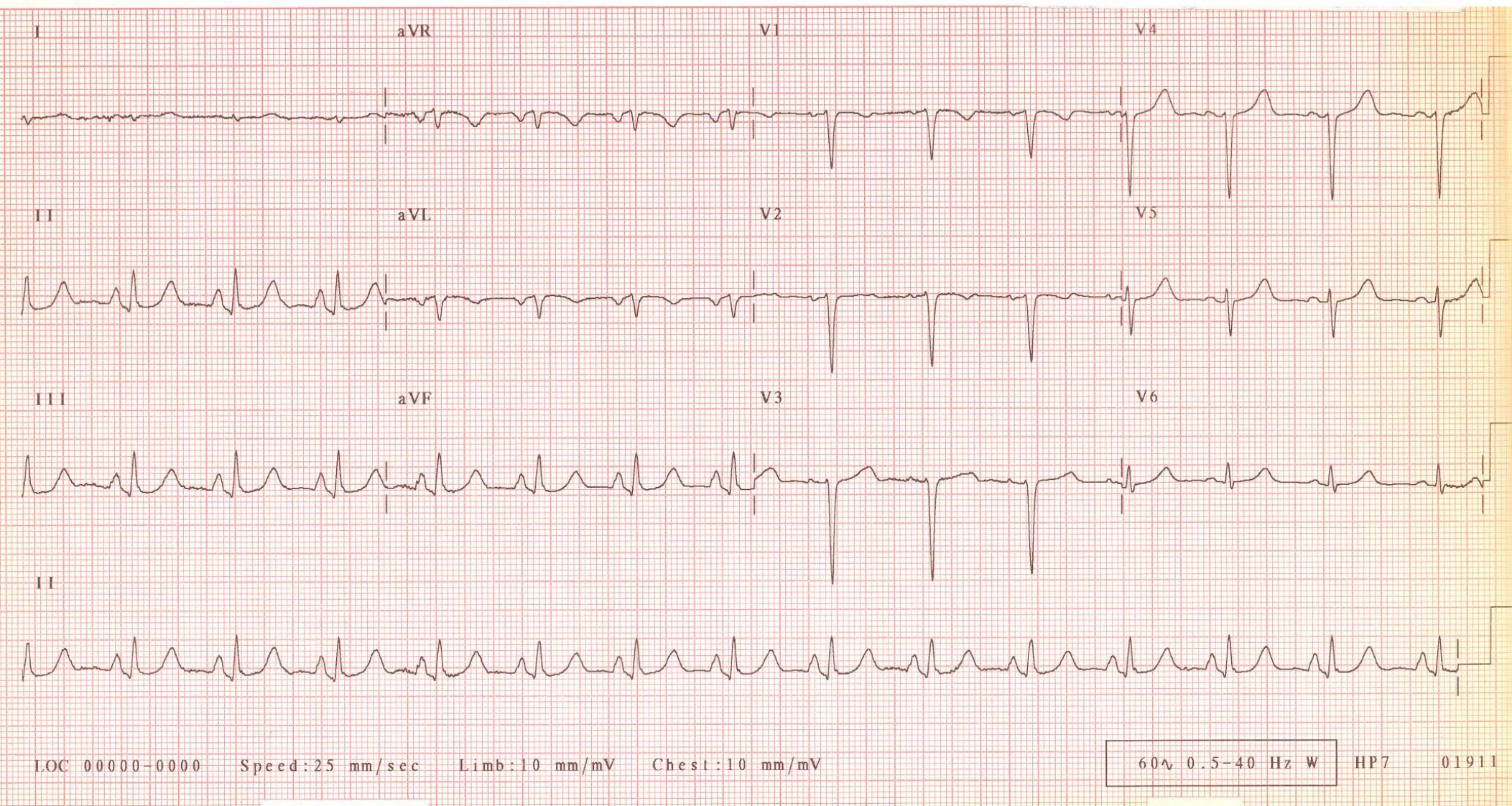
Rate:	Atrial:_____	Ventricular:_____
PR:	_____	
QRS:	_____	
Axis:	_____	
Rhythm:	_____	
Interpretation:	_____	

1. What chambers(s) is/are enlarged?

2. Why is the R wave prominent in leads V1-V3?

Case #9: Chapter 1

55 year-old man with chronic shortness of breath



Case #9 – Chapter 1

55 year-old man with chronic shortness of breath

Rate:	Atrial:_____	Ventricular:_____
PR:	_____	
QRS:	_____	
Axis:	_____	
Rhythm:	_____	
Interpretation:	_____	

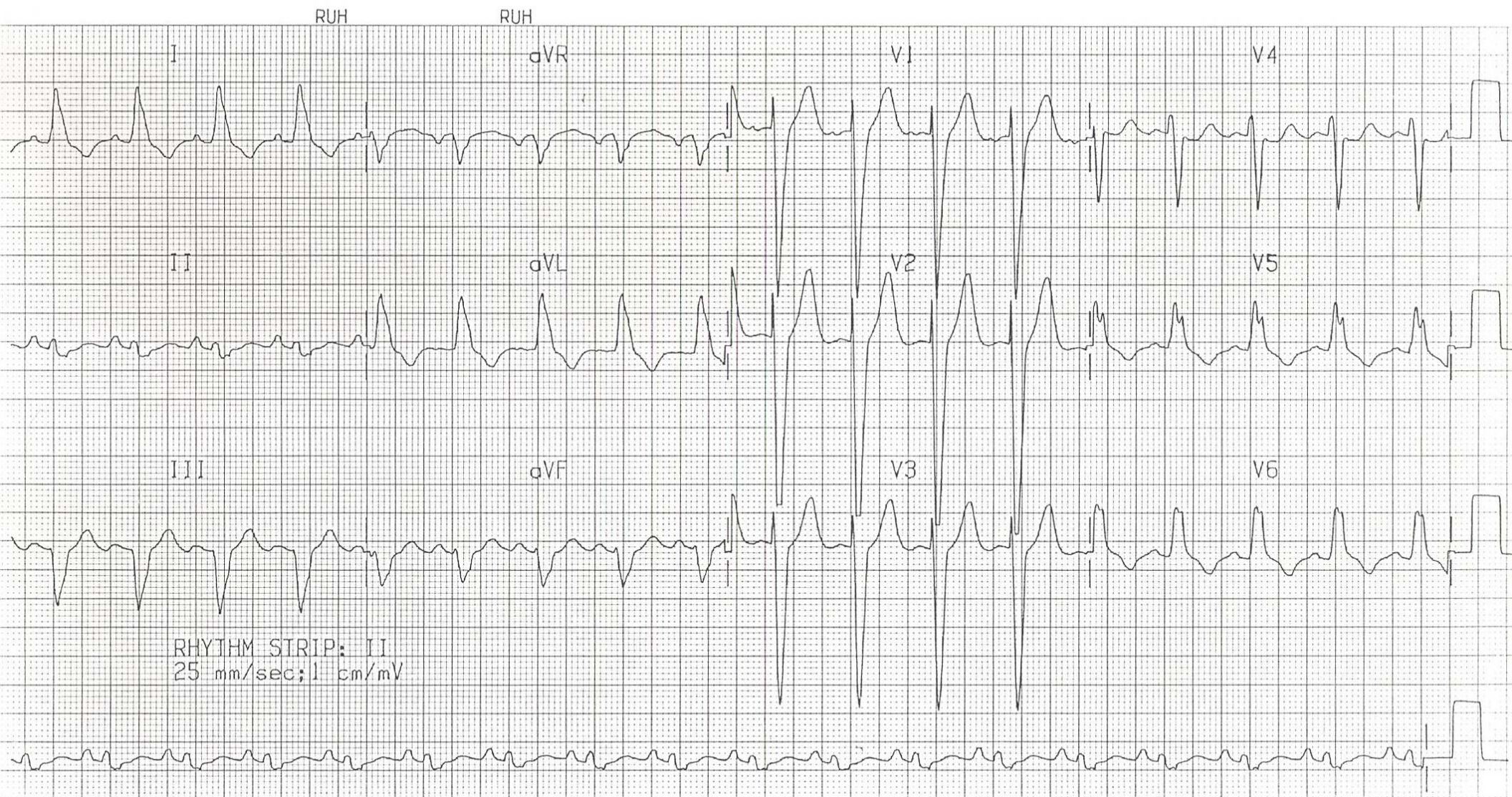
1. What chamber is enlarged?

2. What accounts for the poor R wave progression in the precordial leads?

3. Is this a heart or a lung process?

Case #10: Chapter 1

Patient presents with syncope



Case #10 – Chapter 1

Patient presents with syncope

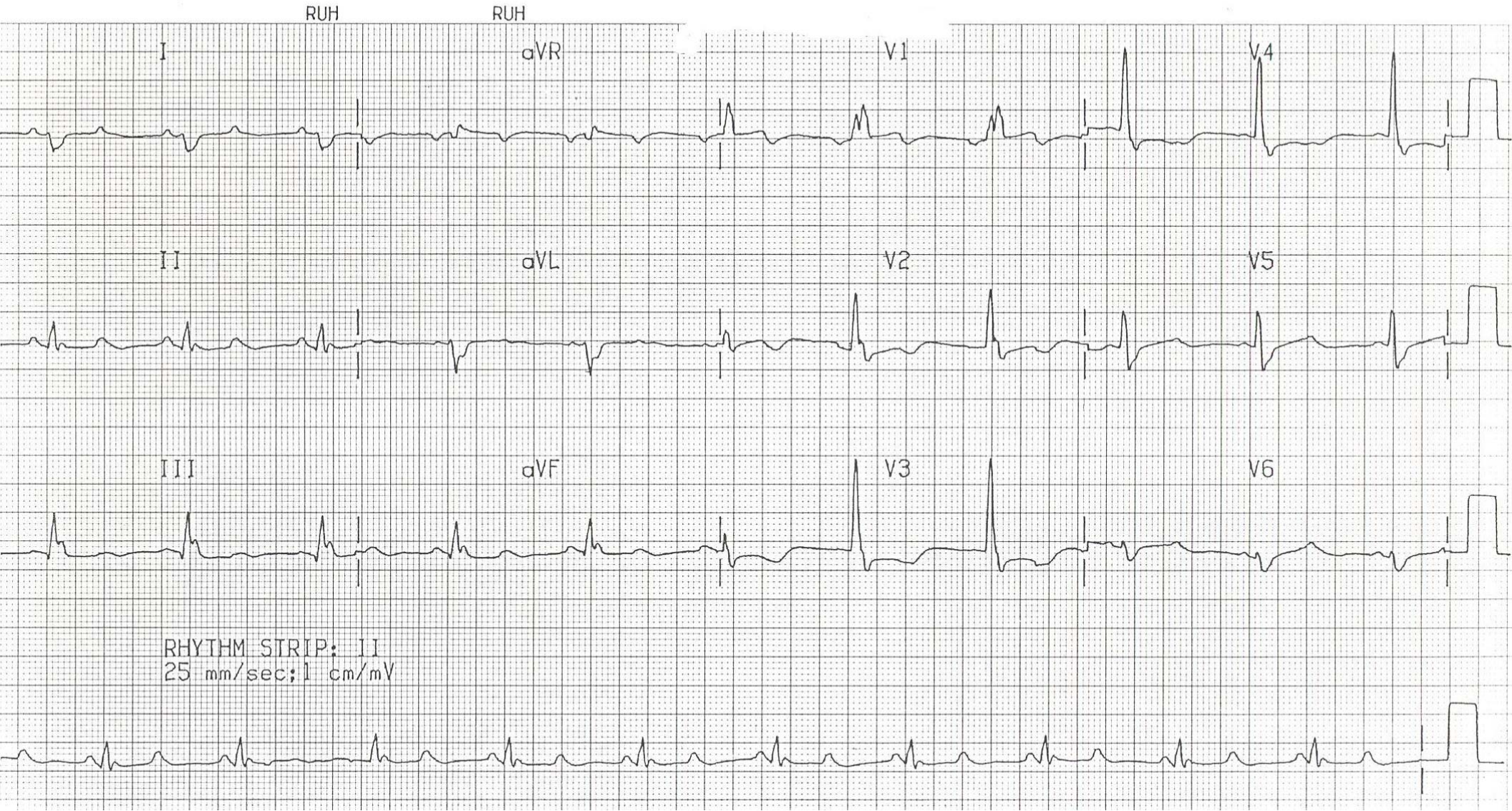
Rate:	Atrial:_____	Ventricular:_____
PR:	_____	
QRS:	_____	
Axis:	_____	
Rhythm:	_____	
Interpretation:	_____	

1. What are the conduction abnormalities?

2. What treatment will likely be needed?

Case#11: Chapter 1

74 year-old woman presents with syncope. The same patient later on the same day



Case #11 – Chapter 1

74 year-old woman presents with syncope
The same patient later on the same day

Rate: _____
PR: _____
QRS: _____
Axis: _____
Rhythm: _____
Interpretation: _____

Ventricular: _____

1. What conduction abnormality is now present?

2. What are the implications of this?
