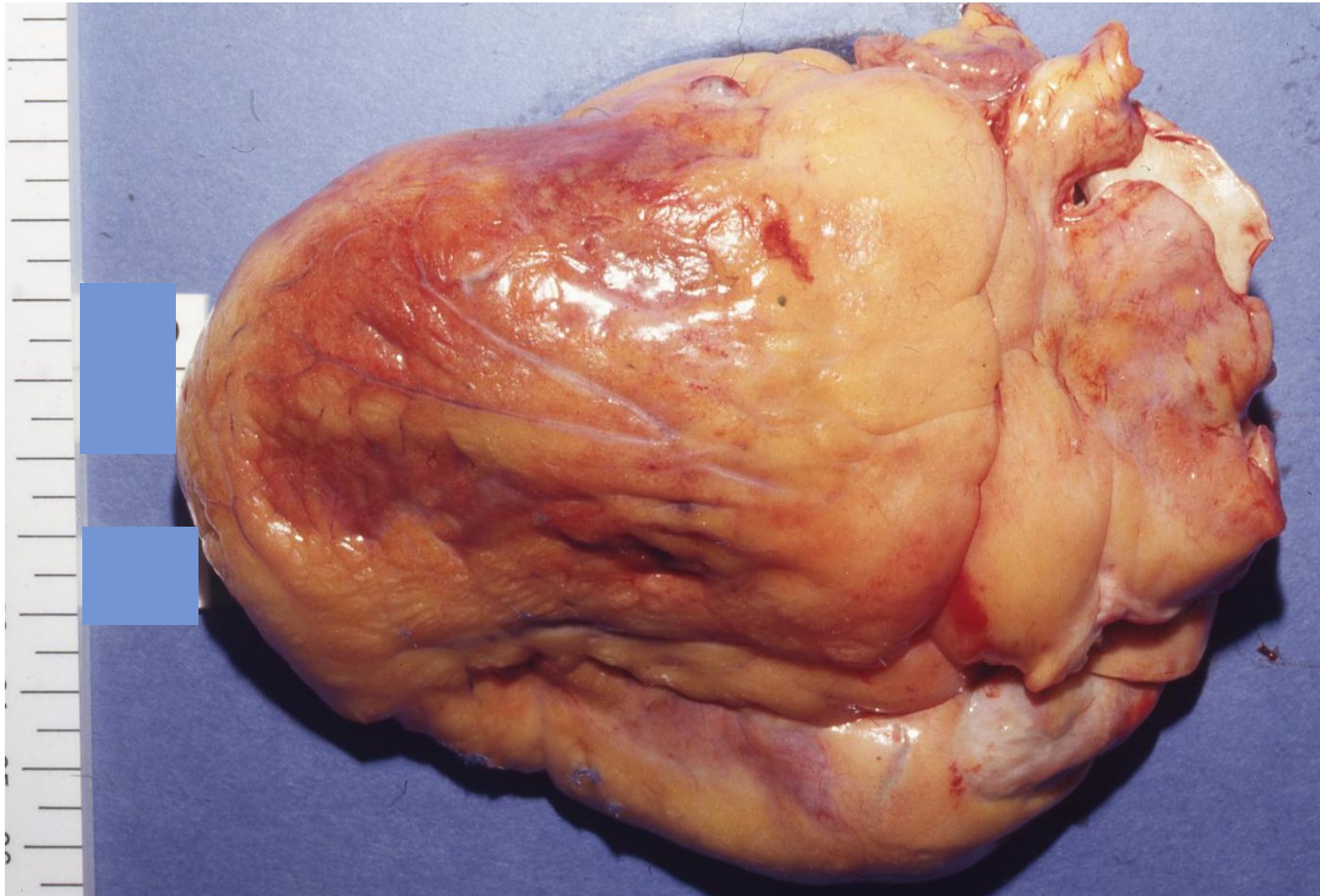


Gross appearance of myocardial infarction

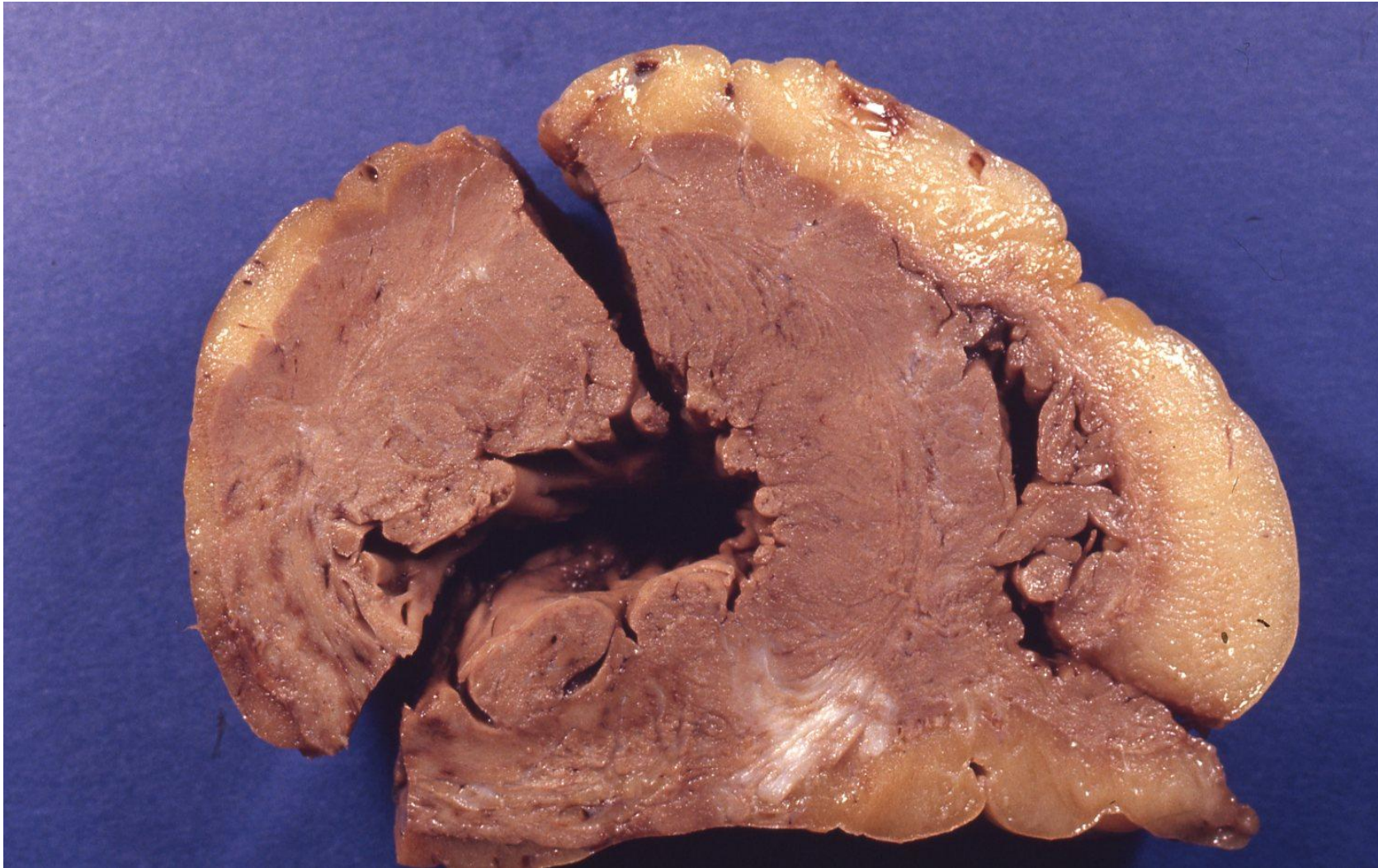
Myocardial infarction is caused by obstruction of coronary artery branches. Atherosclerosis is the most important etiology of the lethal condition. Representative gross features are presented herein, including acute and old myocardial infarction, cardiac rupture, cardiac aneurysm and the coronary arterial lesions.

Ref.: Libre Pathology. Myocardial infarction.

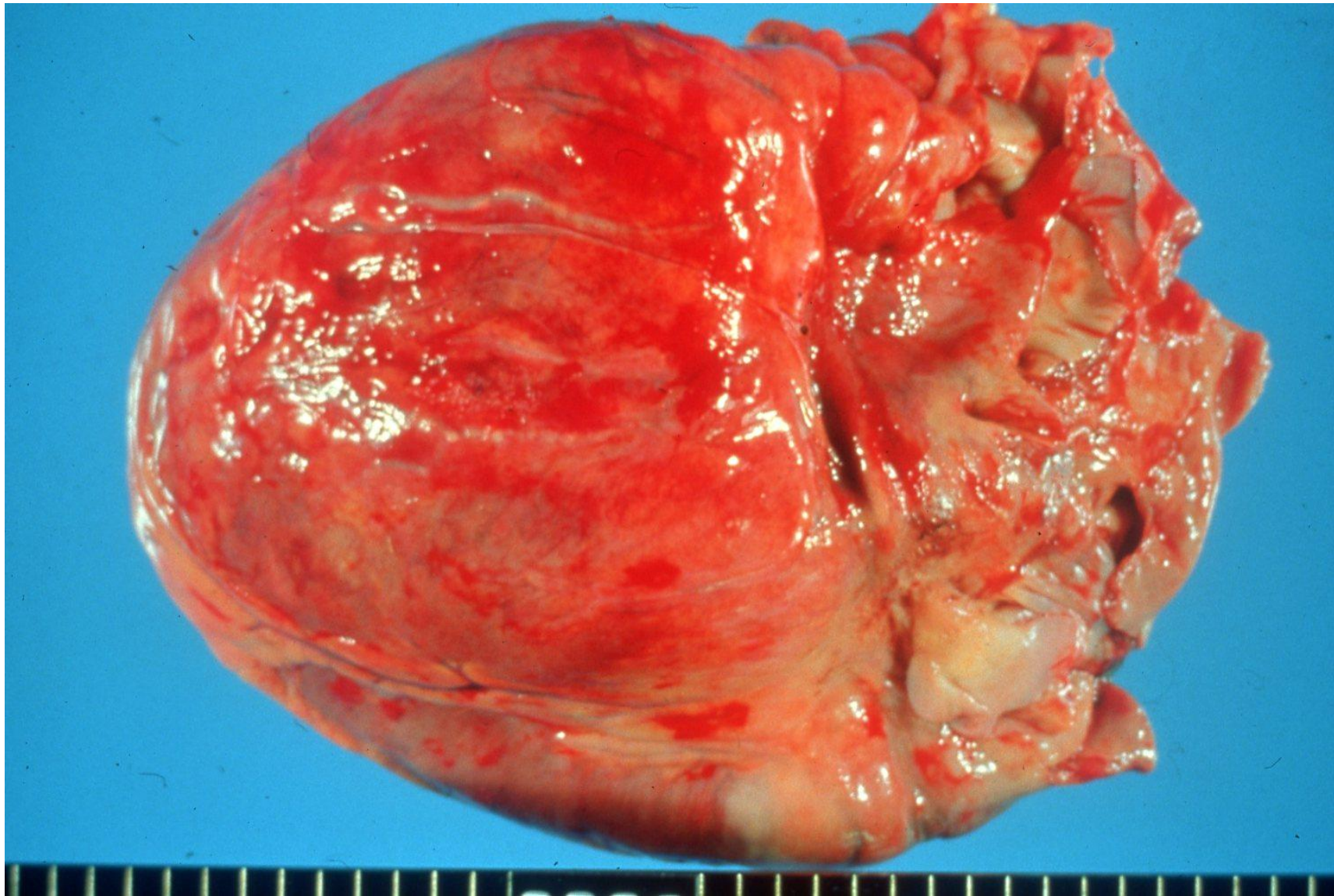
https://librepathology.org/wiki/Myocardial_infarction



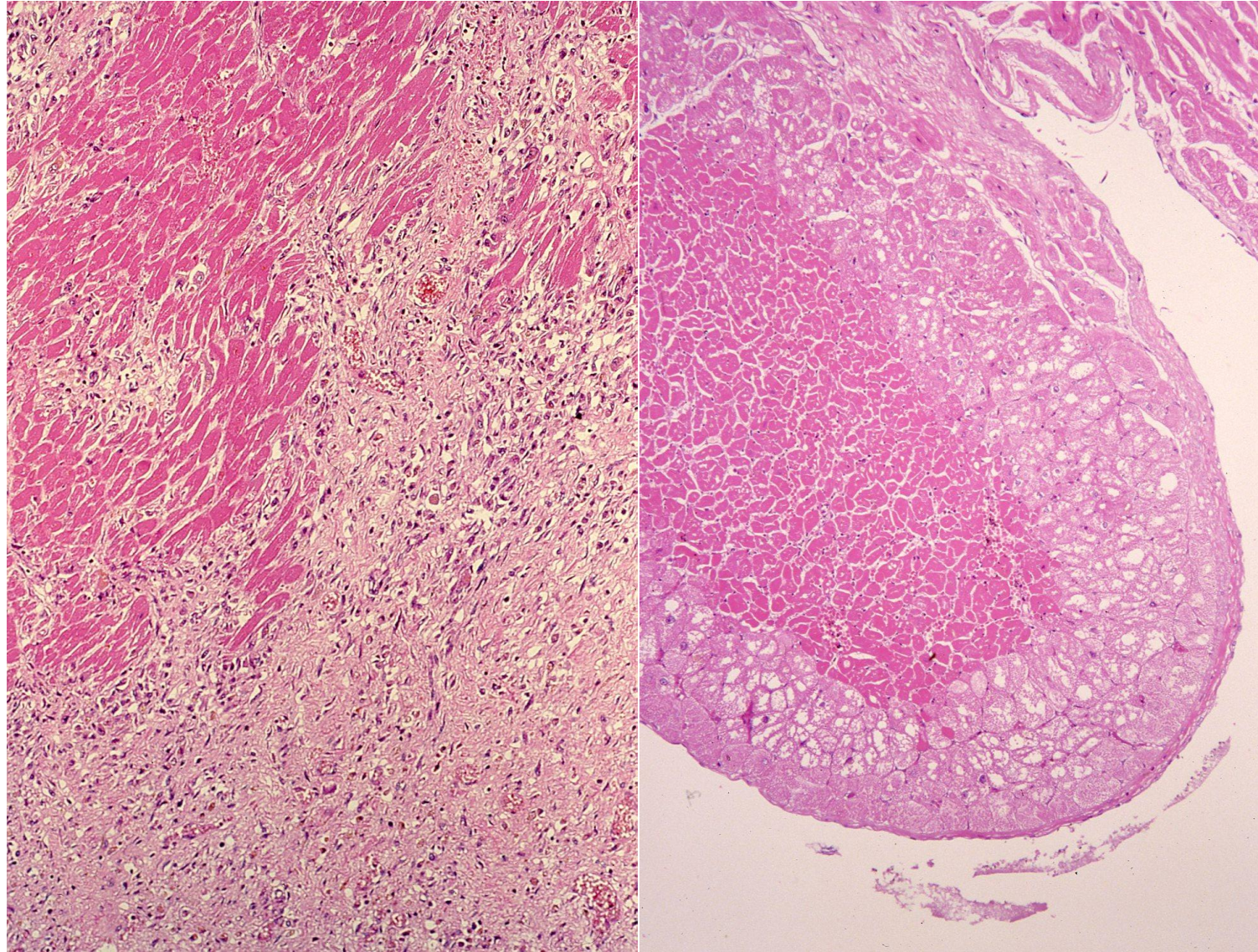
Acute myocardial infarction (posterolateral infarction) seen in a 70-year-old female patient. The cause of death is acute cardiac failure.



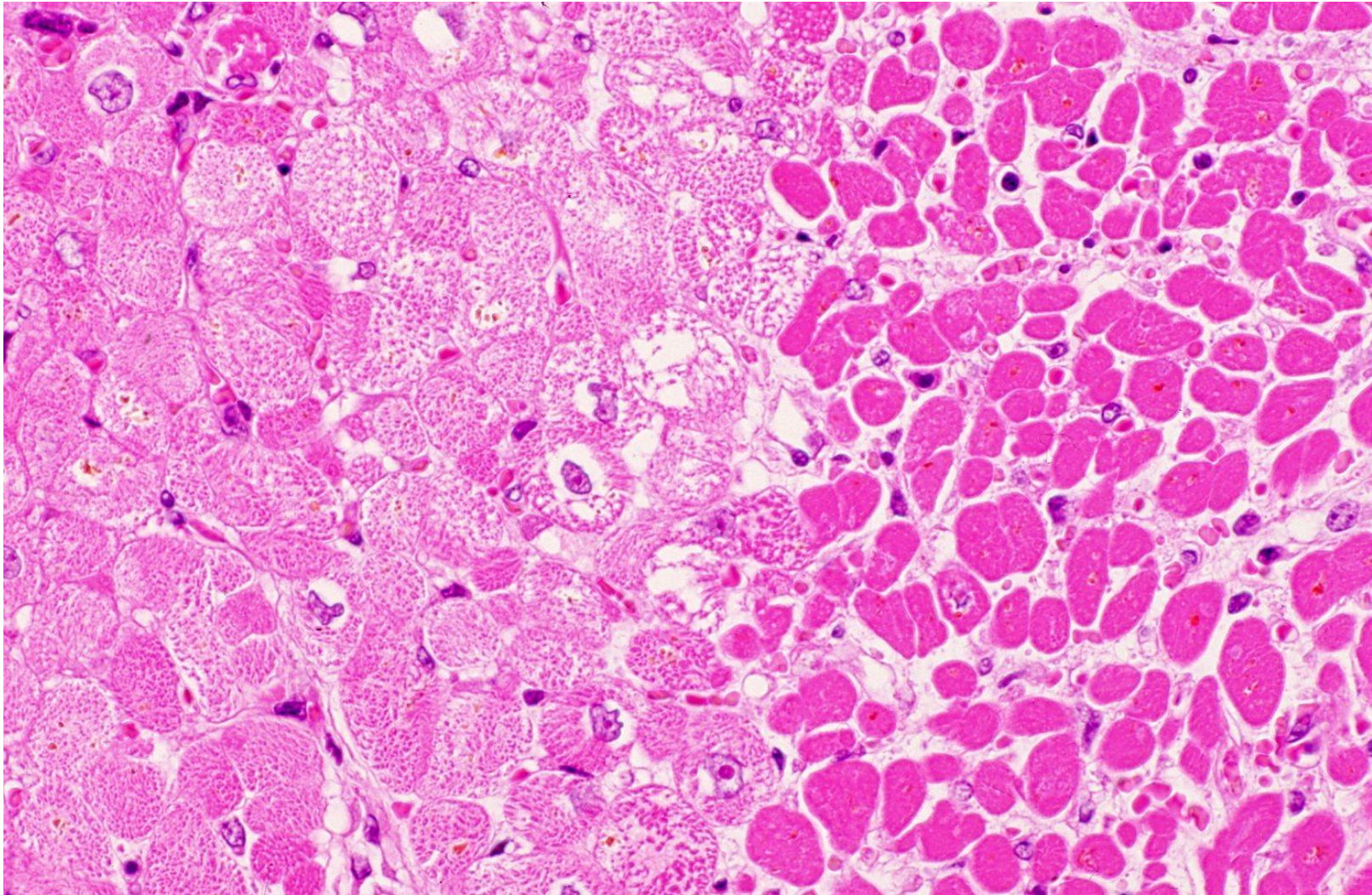
Acute myocardial infarction (posterolateral infarction) seen in a 70-year-old female patient. The horizontal cut surface demonstrates transmural infarction in the posterolateral wall. Fibrous scar is also noted in the posterior wall.



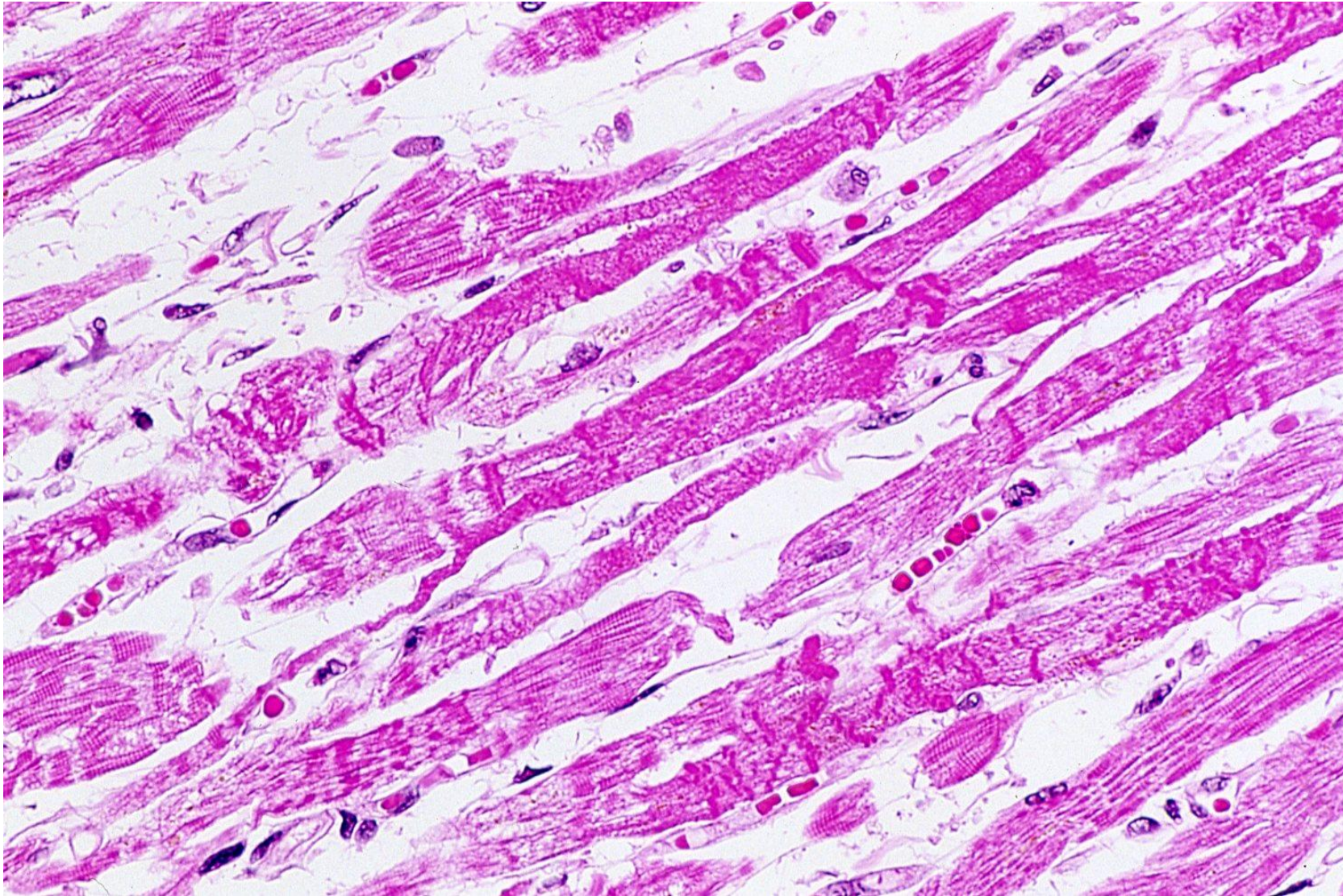
Acute myocardial infarction (posterolateral infarction) seen in a 56-year-old male patient (heart 390 g). The cause of death is acute cardiac failure due to massive myocardial necrosis.



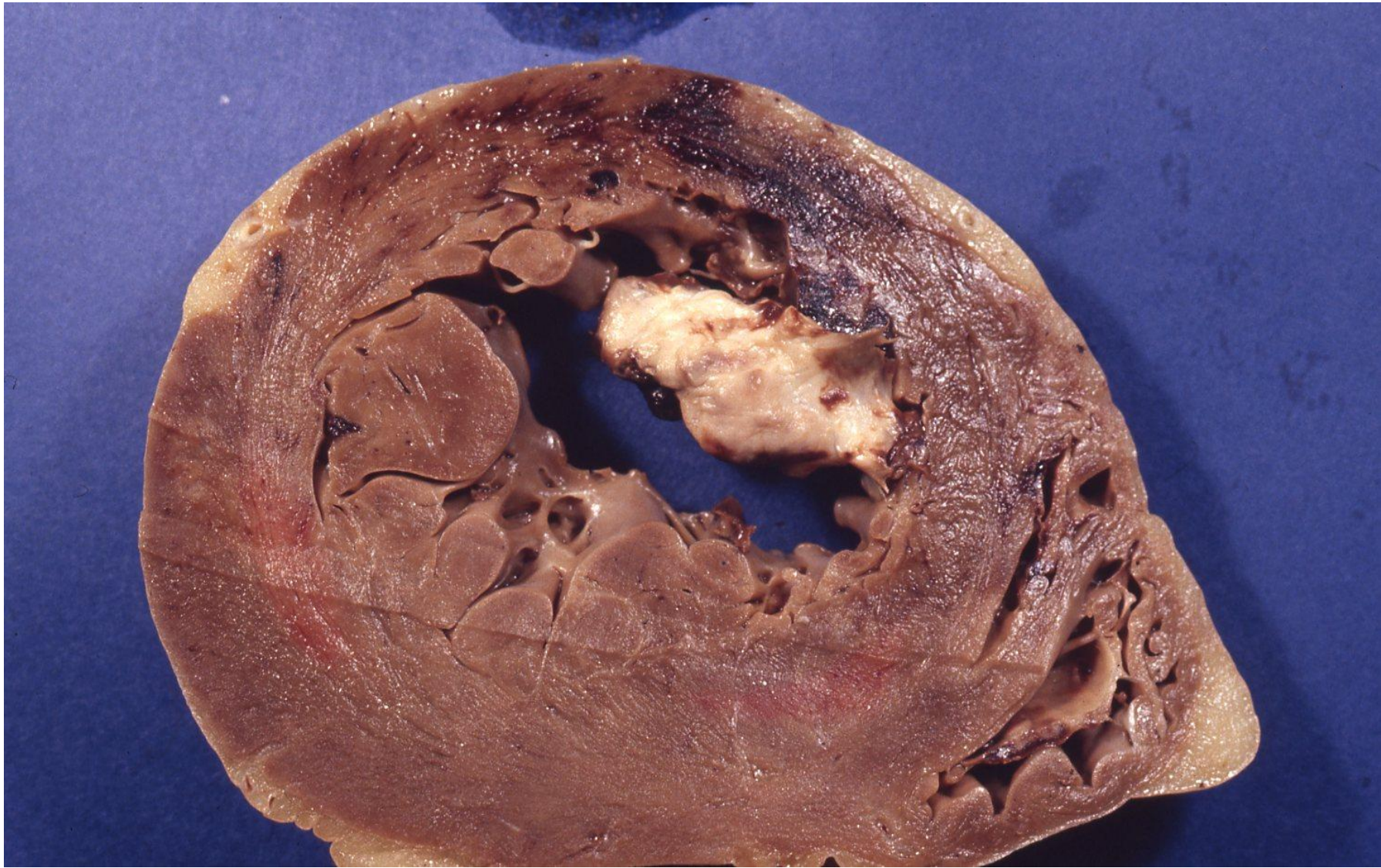
Acute myocardial infarction (posterolateral infarction) seen in a 56-year-old male patient (heart 390 g). Coagulation necrosis of the heart muscle cells is microscopically evident. The papillary muscle is also involved (right). H&E-1



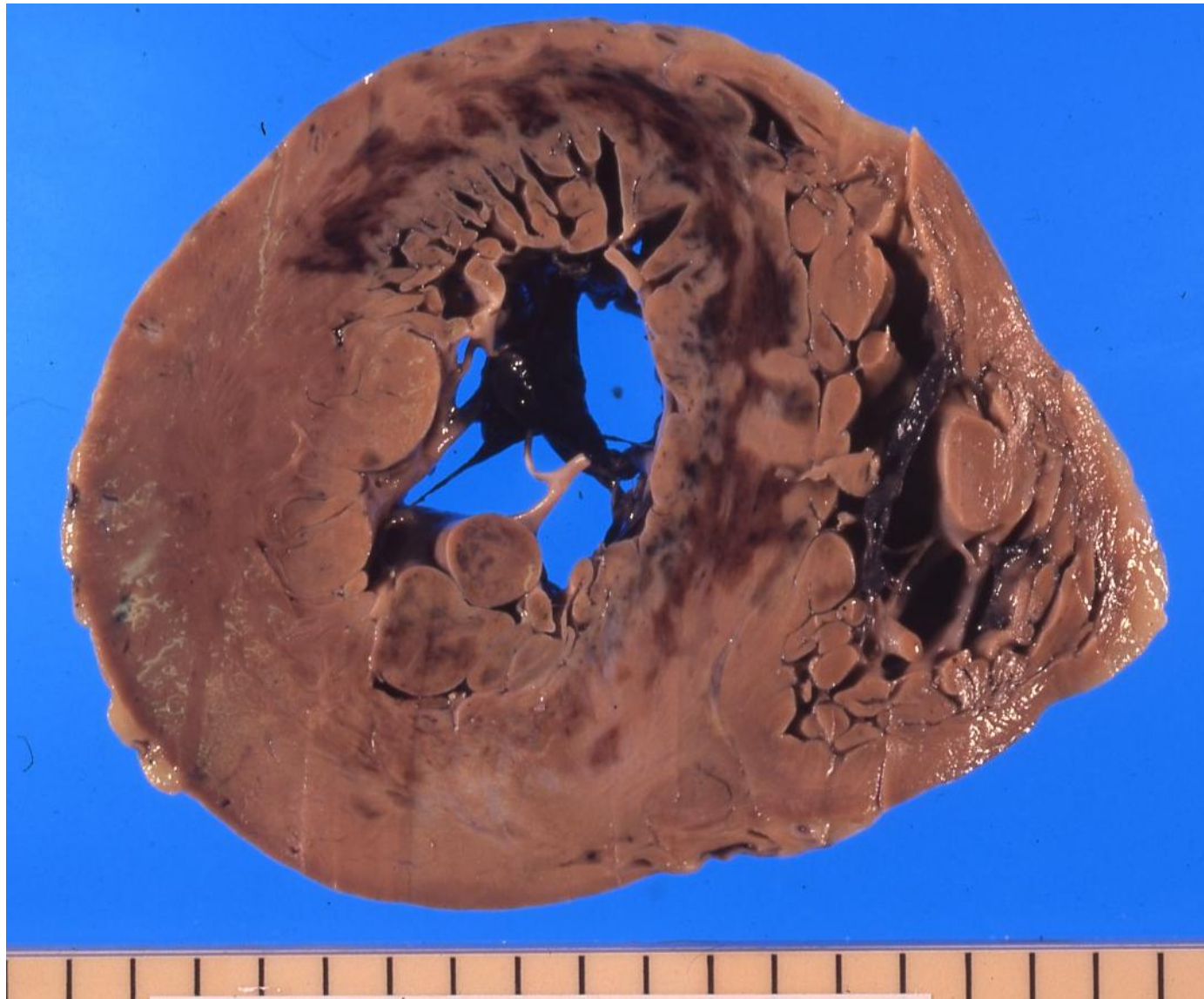
Microscopic features of fresh myocardial infarction. The right half of the cardiomyocytes shows coagulation necrosis with increased cytoplasmic eosinophilia, H&E-2



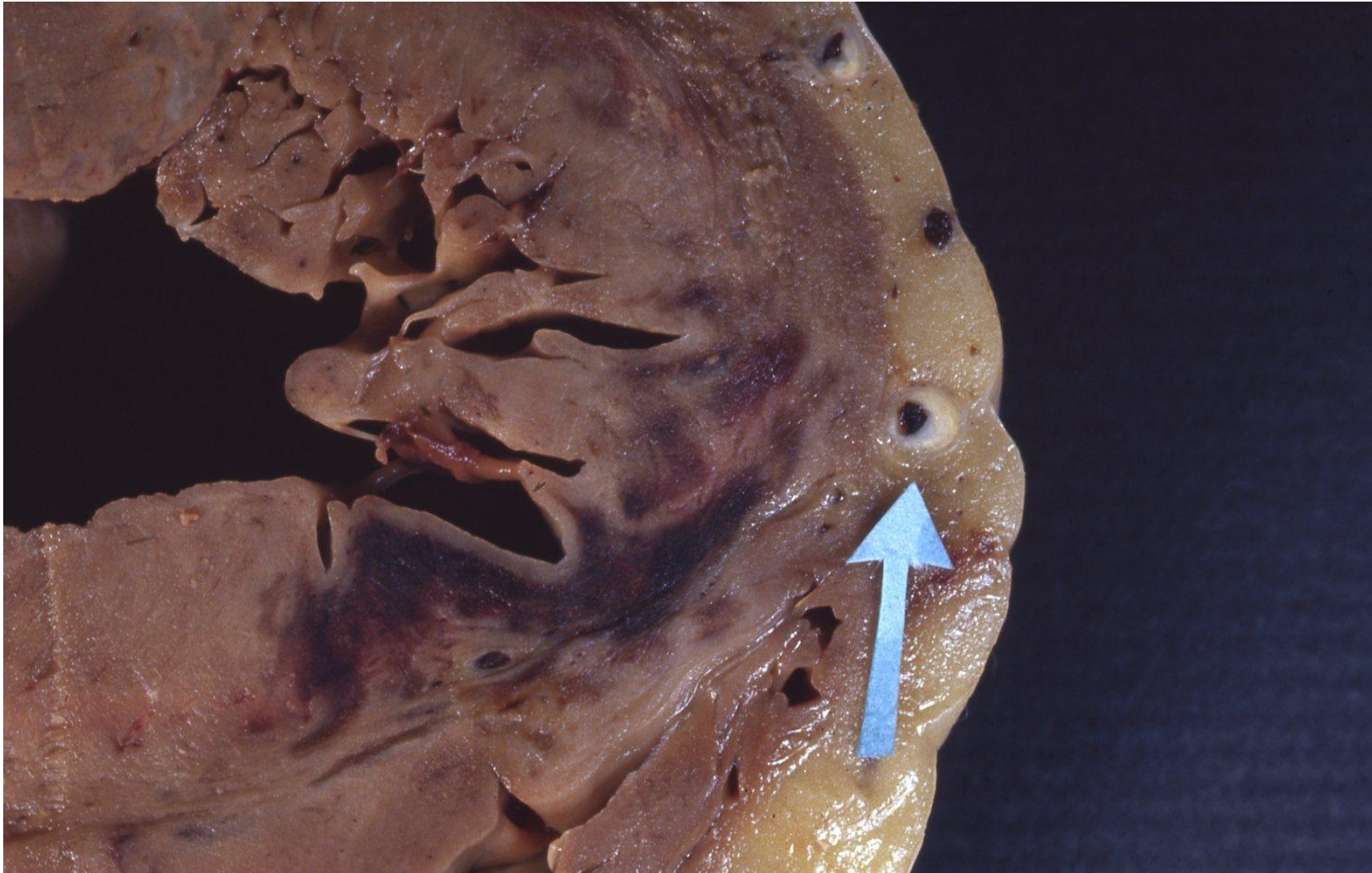
Acute myocardial infarction (posterolateral infarction) seen in a 56-year-old male patient (heart 390 g). Contraction band formation is microscopically evident in the ischemic heart muscle cells. H&E-3



A horizontal cut surface of anteroseptal myocardial infarction with mural thrombosis formation (63M, heart: 360 g)



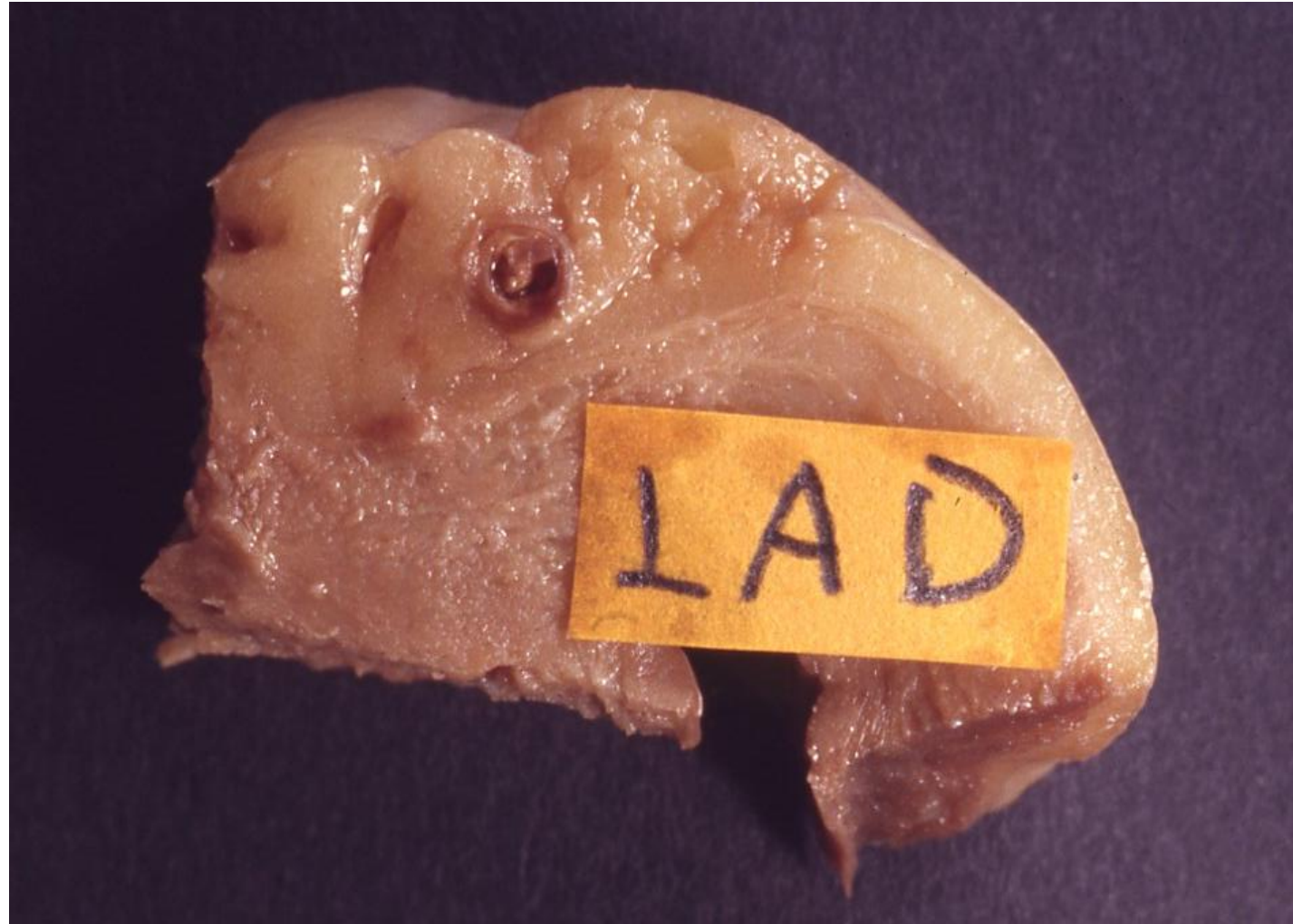
Horizontal cut surface of anteroseptal myocardial infarction (69M, heart: 370g). Hemorrhagic change is observed in the necrotic heart muscle.



Horizontal cut surface of anteroseptal myocardial infarction with thrombotic obstruction of sclerotic anterior descending artery (arrow) (76M, heart: 450 g). Hemorrhagic change of the necrotic heart muscle is observed.



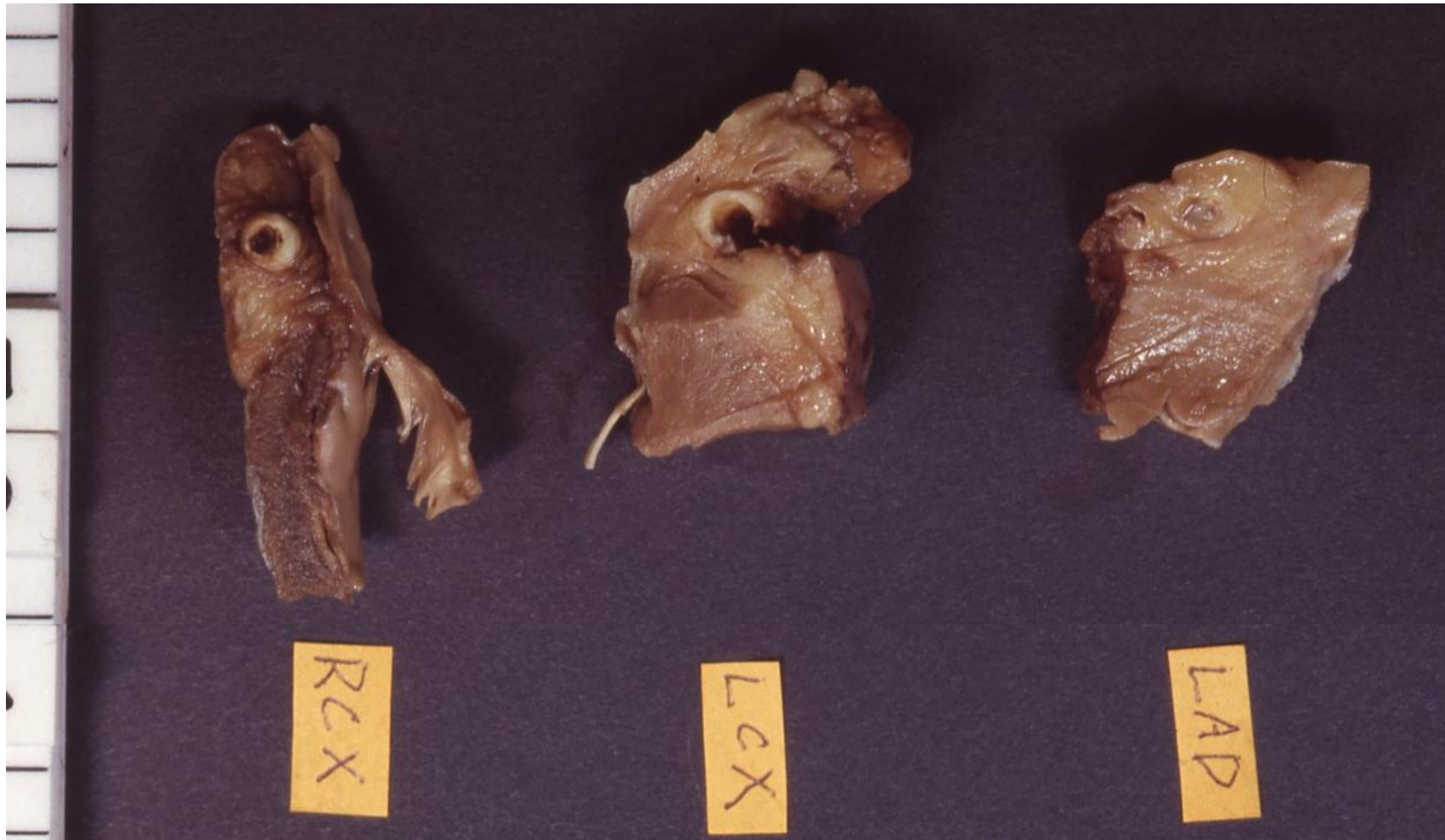
Horizontal cut surface of acute posteroseptal myocardial infarction (55M, heart: 460 g)



Thrombotic obstruction of the left anterior descending artery, causing anteroseptal infarction with cardiac rupture (54M)



Stenosis and thrombosis of the left anterior descending (LAD) and left circumflex (LCX) arteries (47M)



Coronary atherosclerosis with obstruction of the left anterior descending (LAD) artery. RCX: right circumflex artery, LCX: left circumflex artery



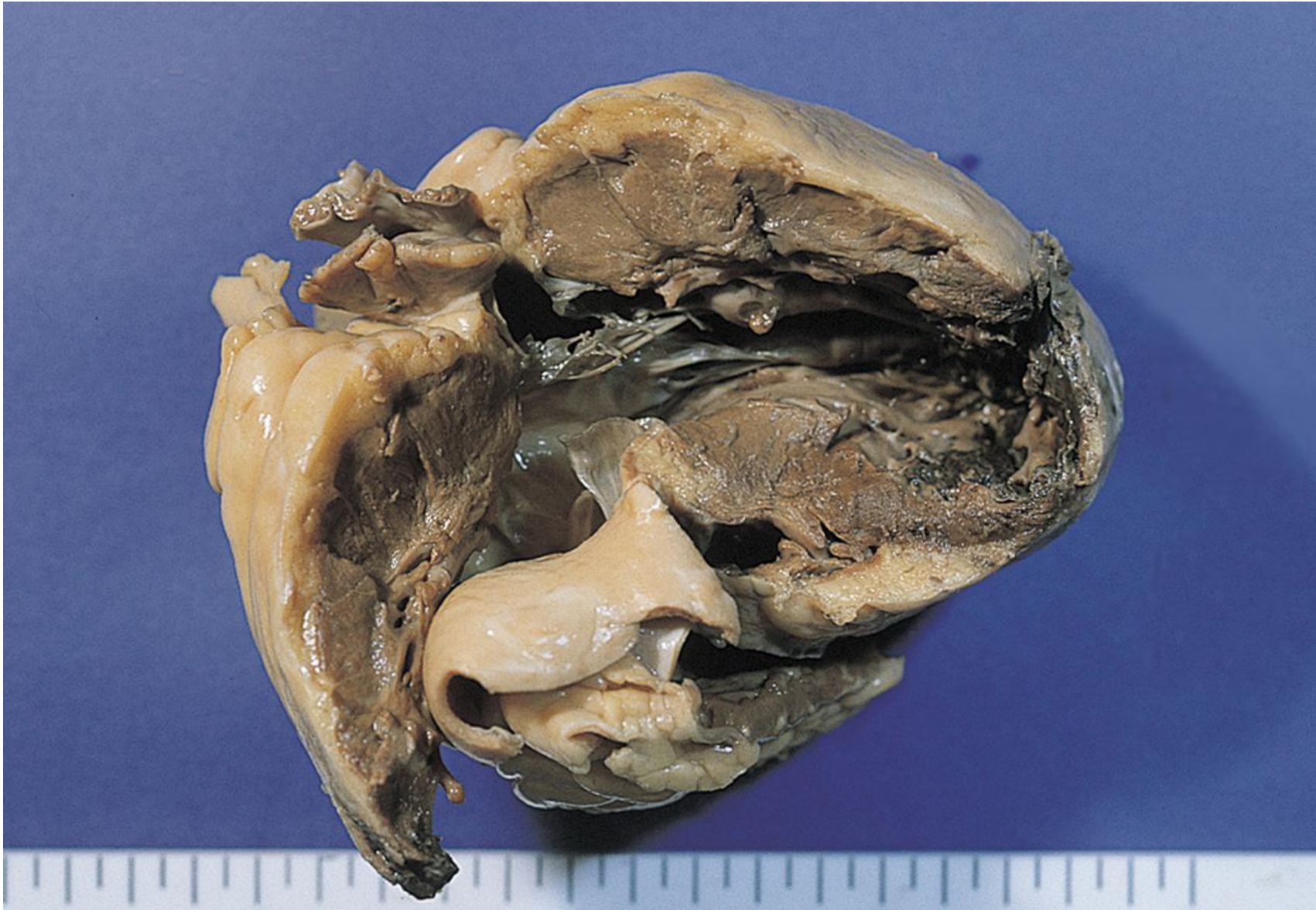
Thrombotic obstruction of dilated and atherosclerotic right circumflex (RCX) artery with posterolateral infarction (73M)



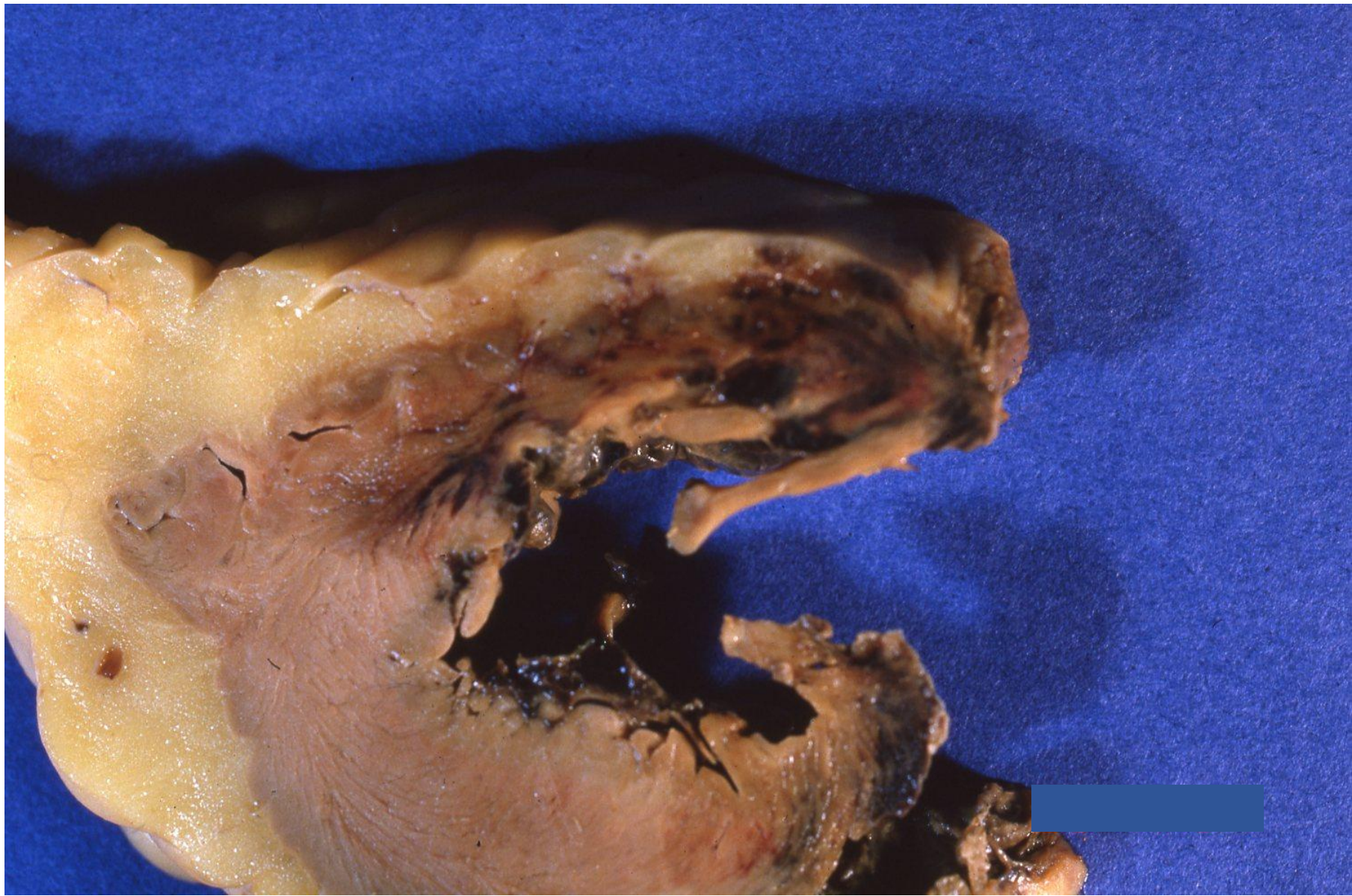
Cardiac rupture at the cardiac apex due to lateral infarction (73F)



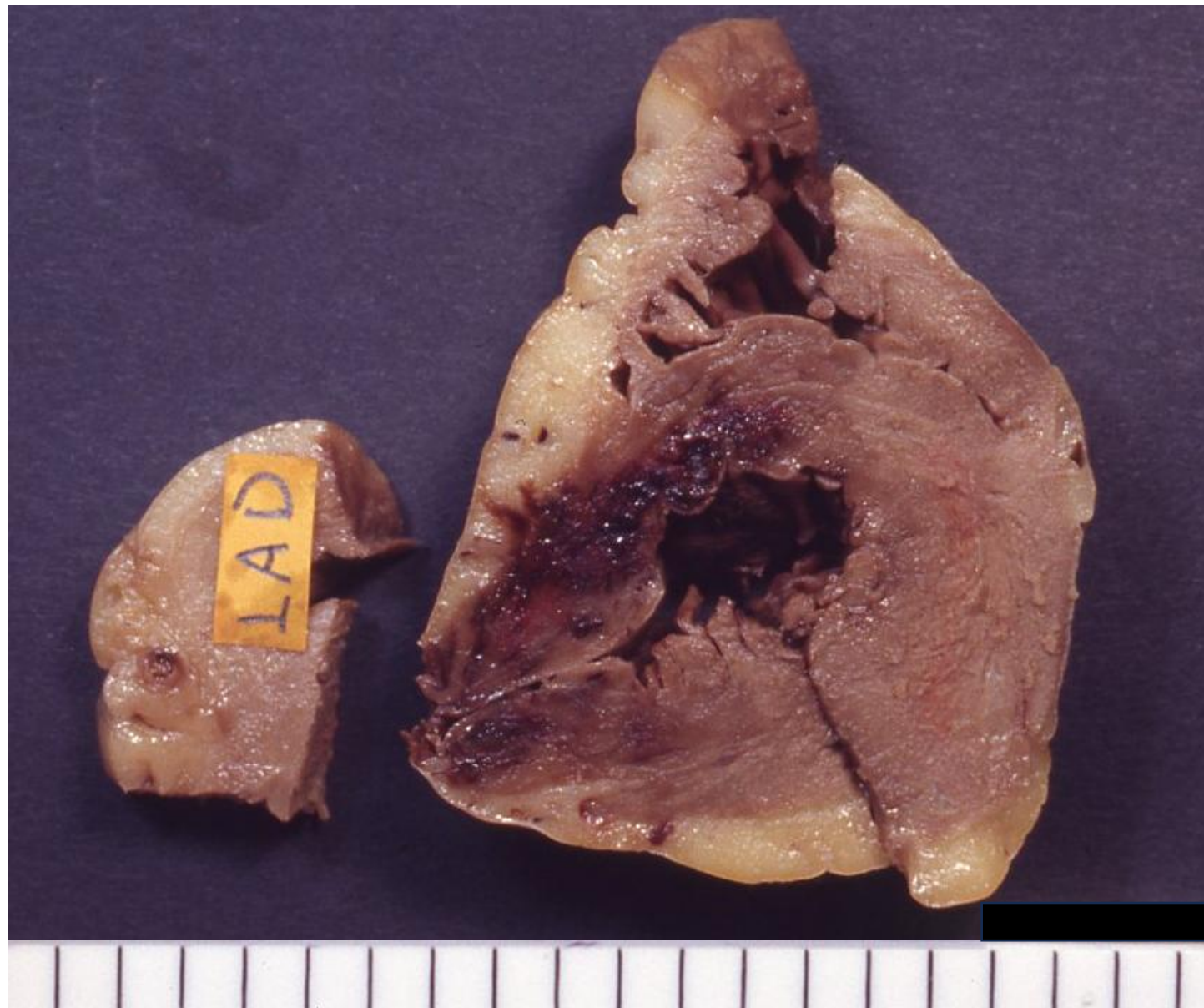
Horizontal sections of cardiac rupture due to acute lateral myocardial infarction (73F)



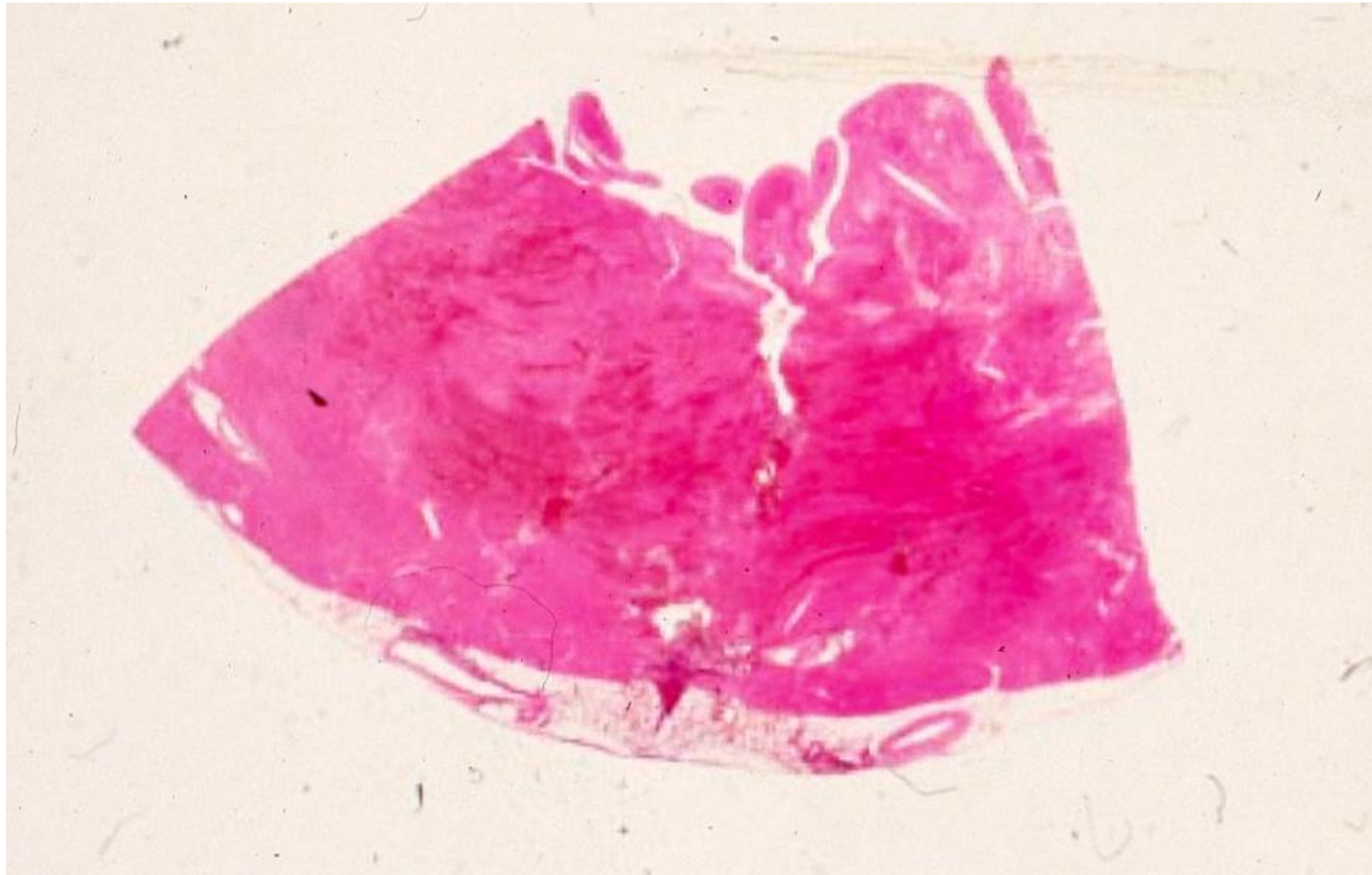
Cardiac rupture at the apex (54M, heart: 350 g). The rupture occurred at the 5th day of the heart attack.



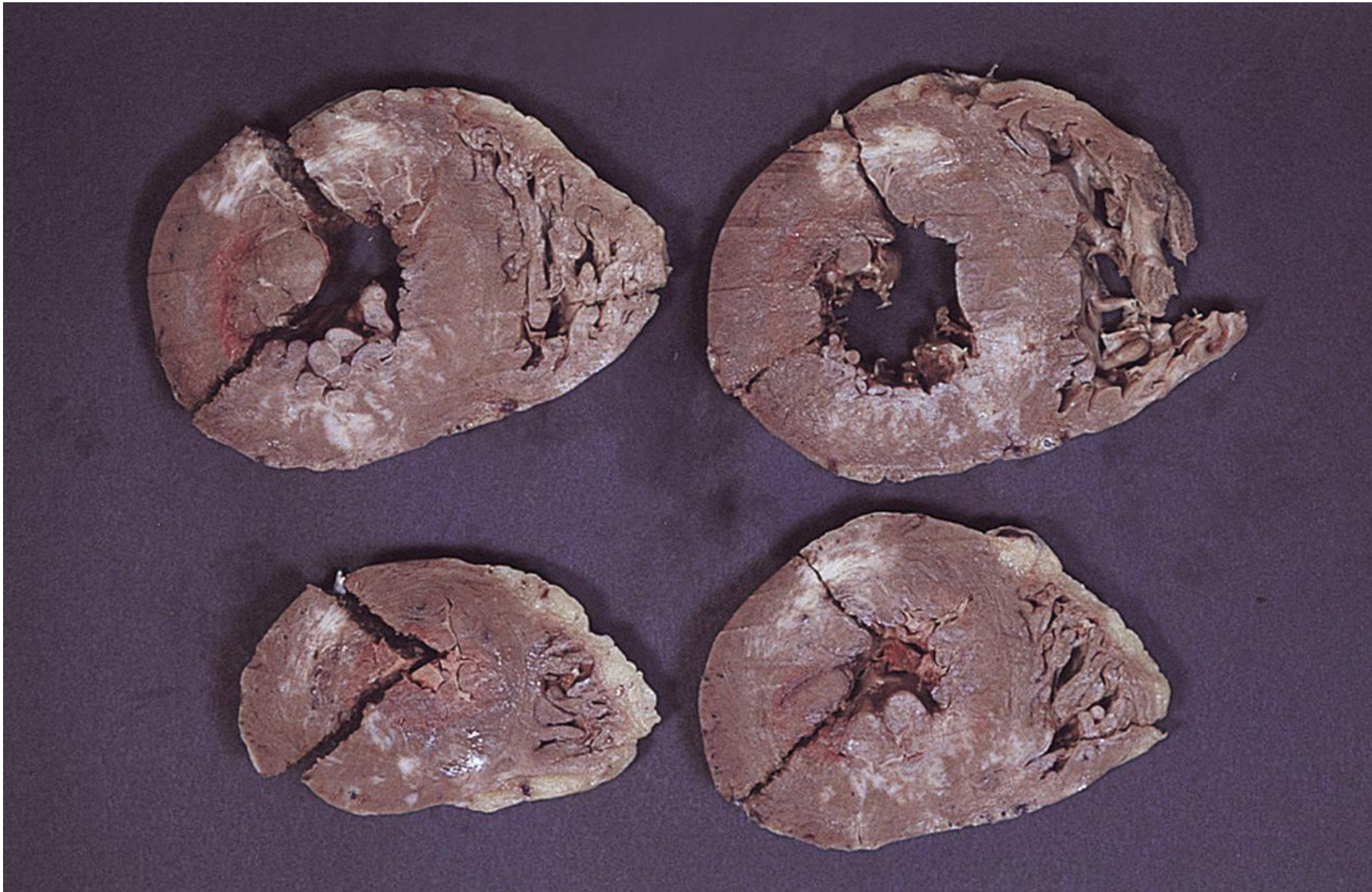
Cardiac rupture due to anteroapical infarction (86F)



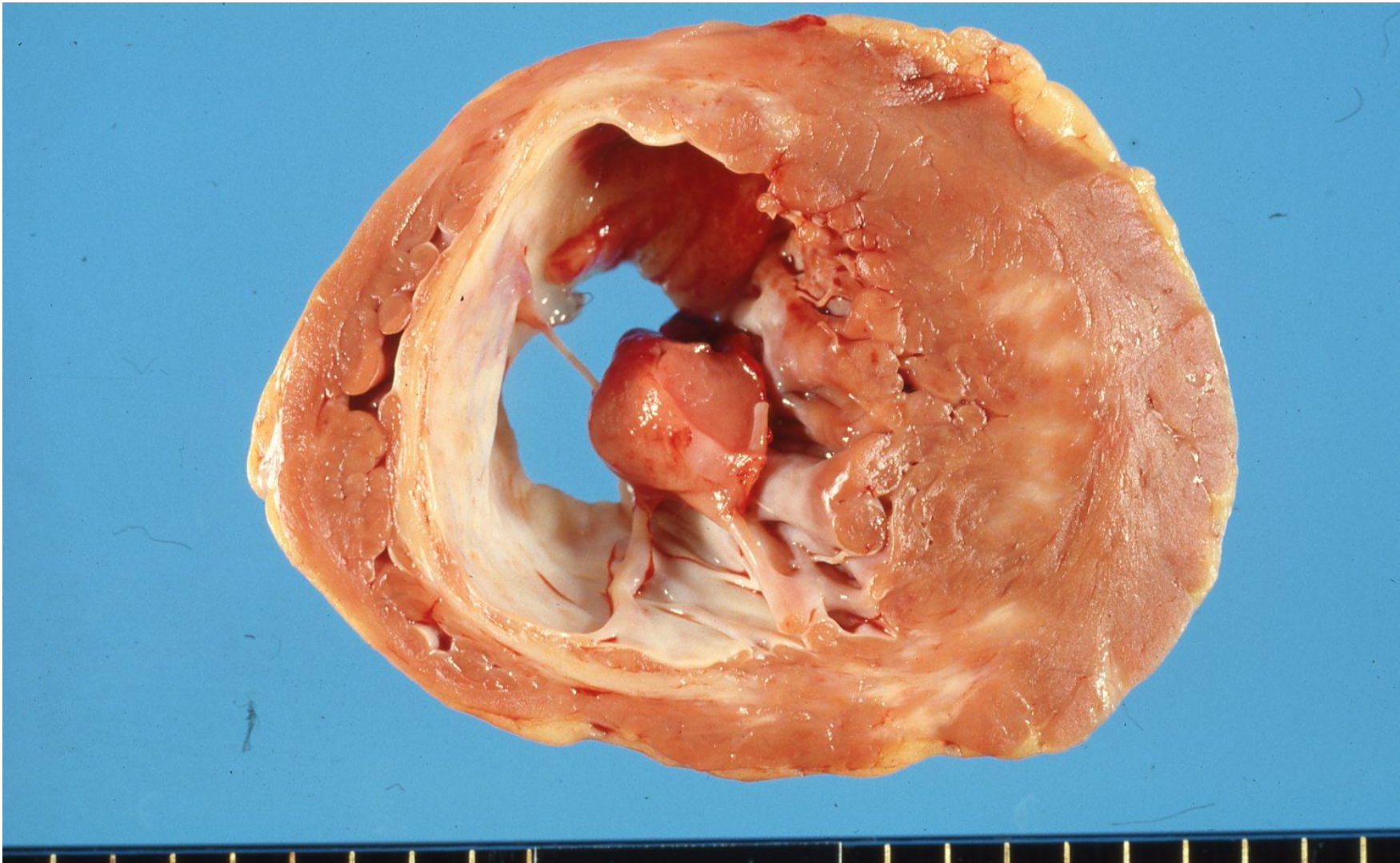
Cardiac rupture due to anteroseptal infarction (54M). Thrombotic obstruction of the left anterior descending (LAD) artery is seen.



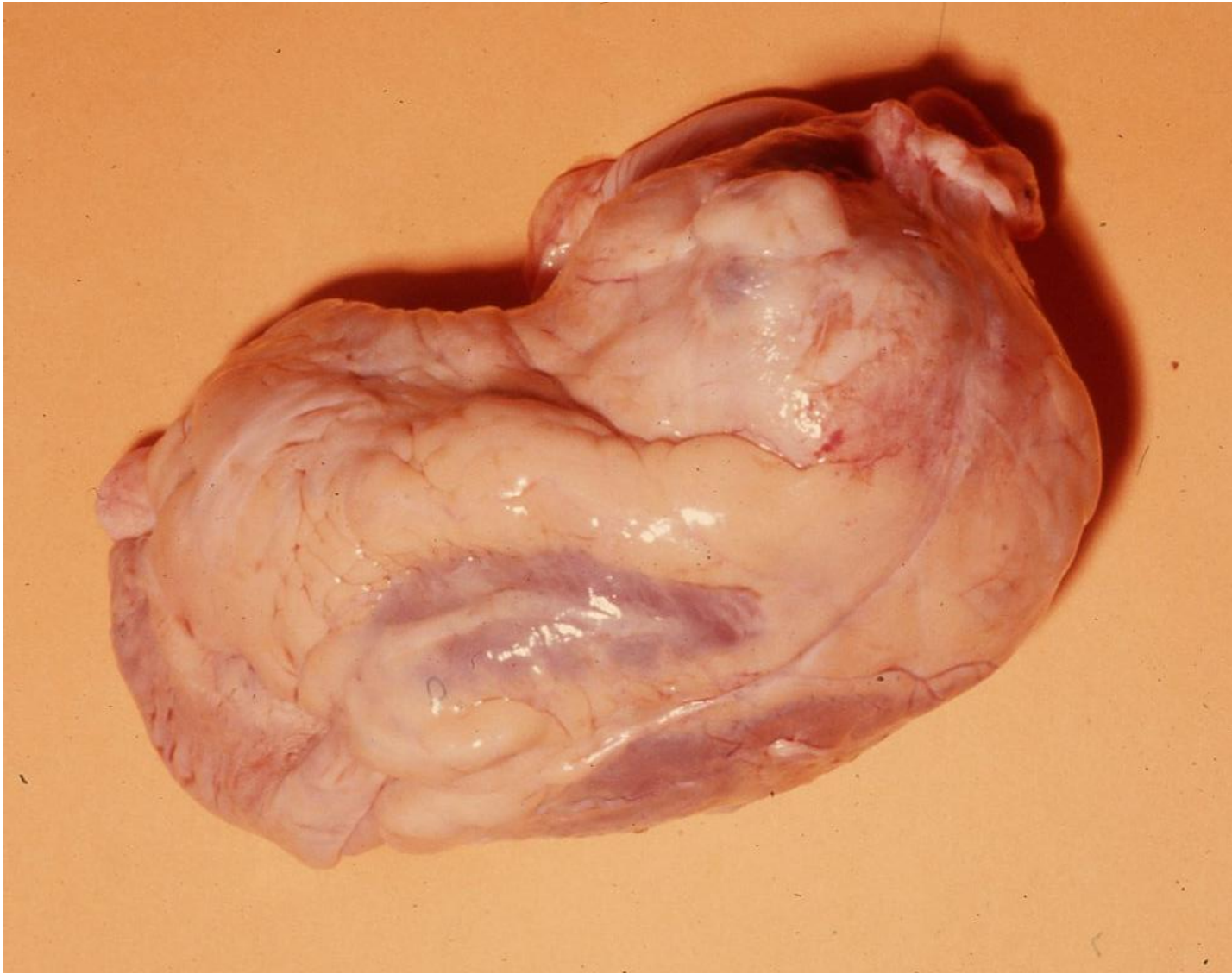
Microscopic picture at the cardiac rupture. Hemorrhagic myocardial necrosis with a slit formation is noted. H&E



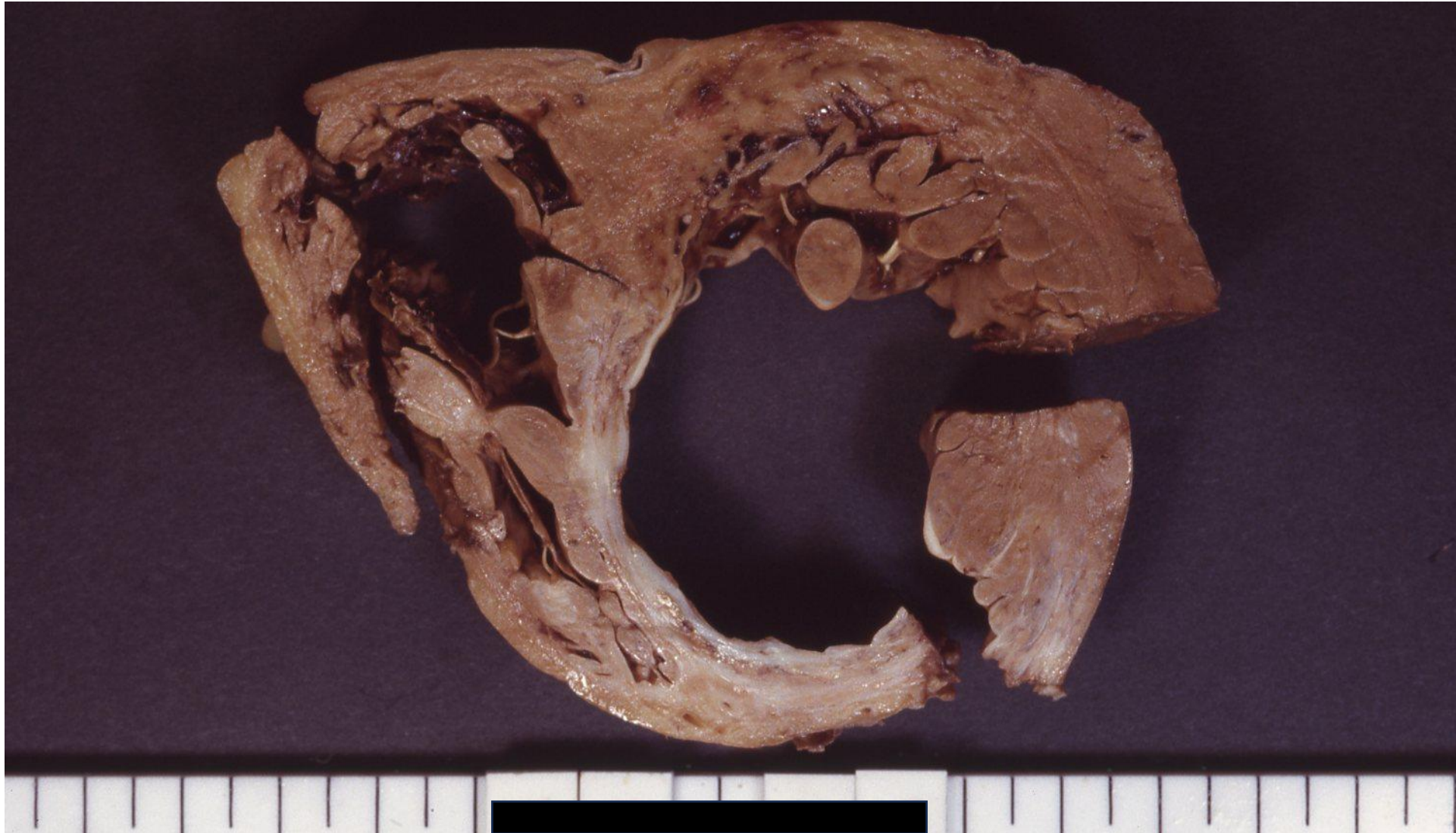
Multifocal old myocardial infarction with scar fibrosis (72M, heart: 420 g).
The patient had no history of acute myocardial infarction.



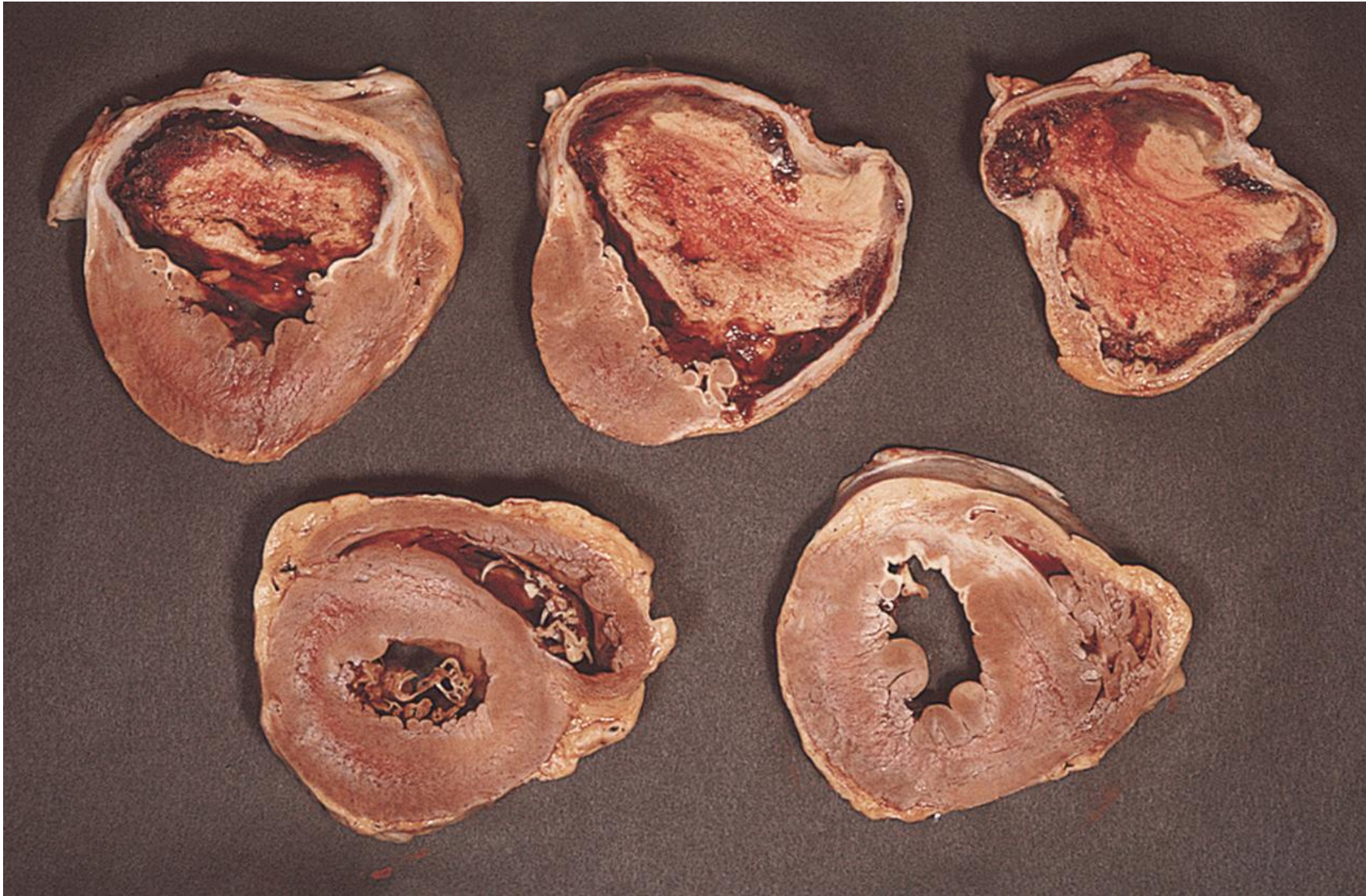
Old myocardial infarction of the posterolateral wall (60M, heart: 400 g).
Diffuse endocardial fibrosis and hypertrophic papillary muscles are associated.



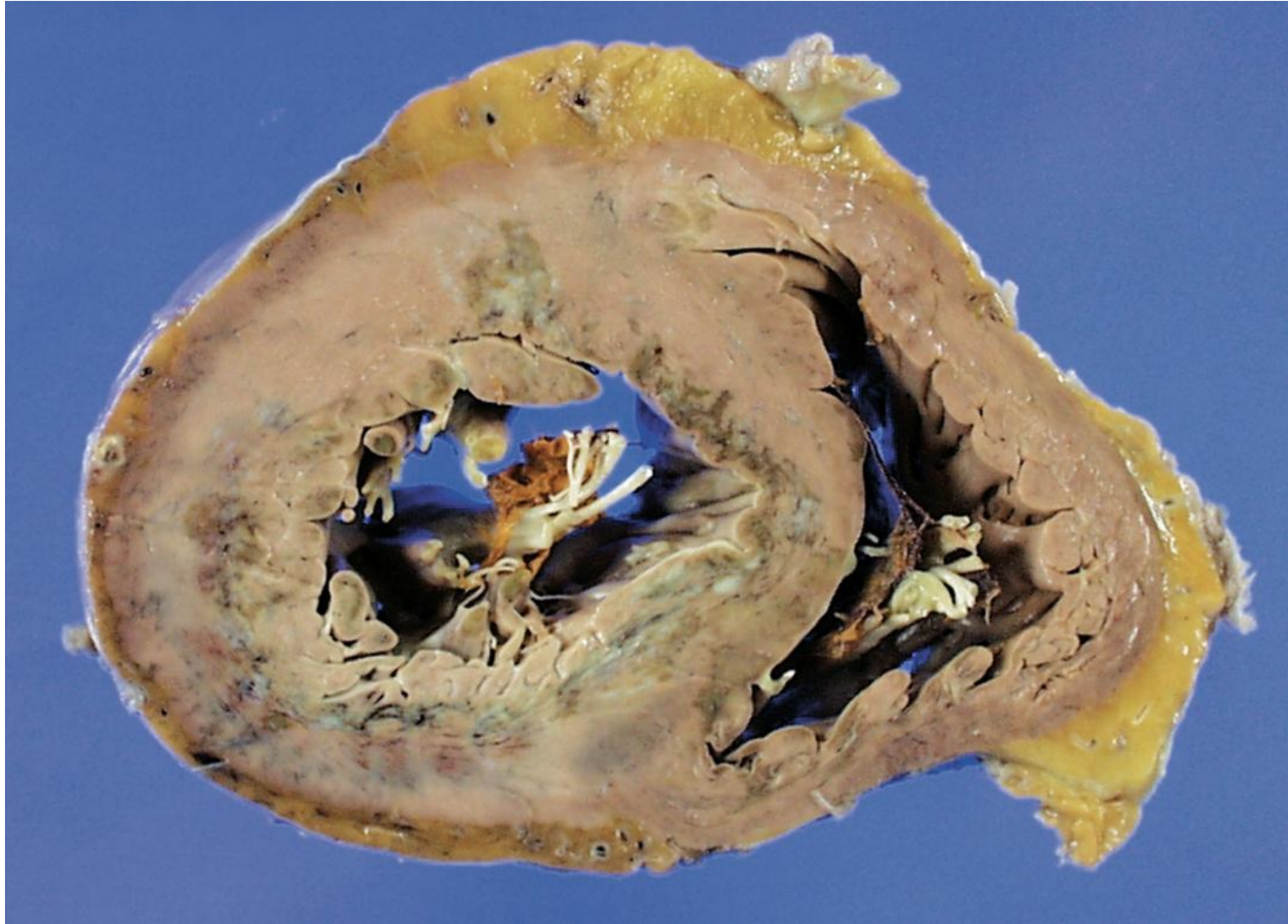
Cardiac aneurysm seen in the apex of the heart (70M, heart: 400 g)



Horizontal cut surface of cardiac aneurysm formed in the anterior wall, due to old myocardial infarction (83M). Fresh myocardial infarction is focally seen in the posterior wall.



Horizontal cut surfaces of cardiac aneurysm with marked mural thrombosis
(70M, heart: 430 g)



Horizontal cut surface of subendocardial infarction (57M, heart: 430 g). Circumferential distribution of subendocardial infarction is characteristic. The coronary artery obstruction is not observed. Spasm of the myocardial penetrating arteries should be the cause of this type of cardiac ischemia.