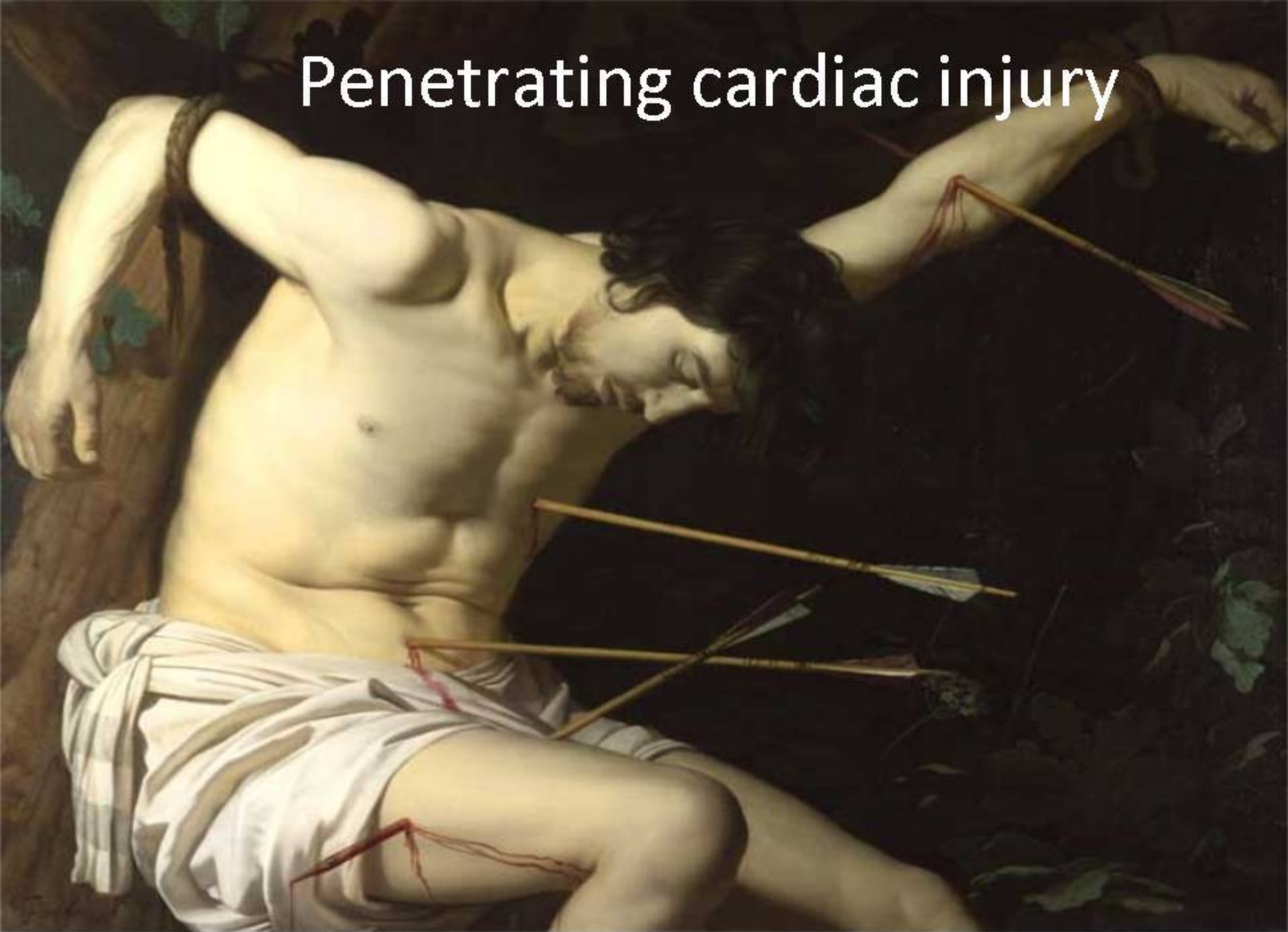
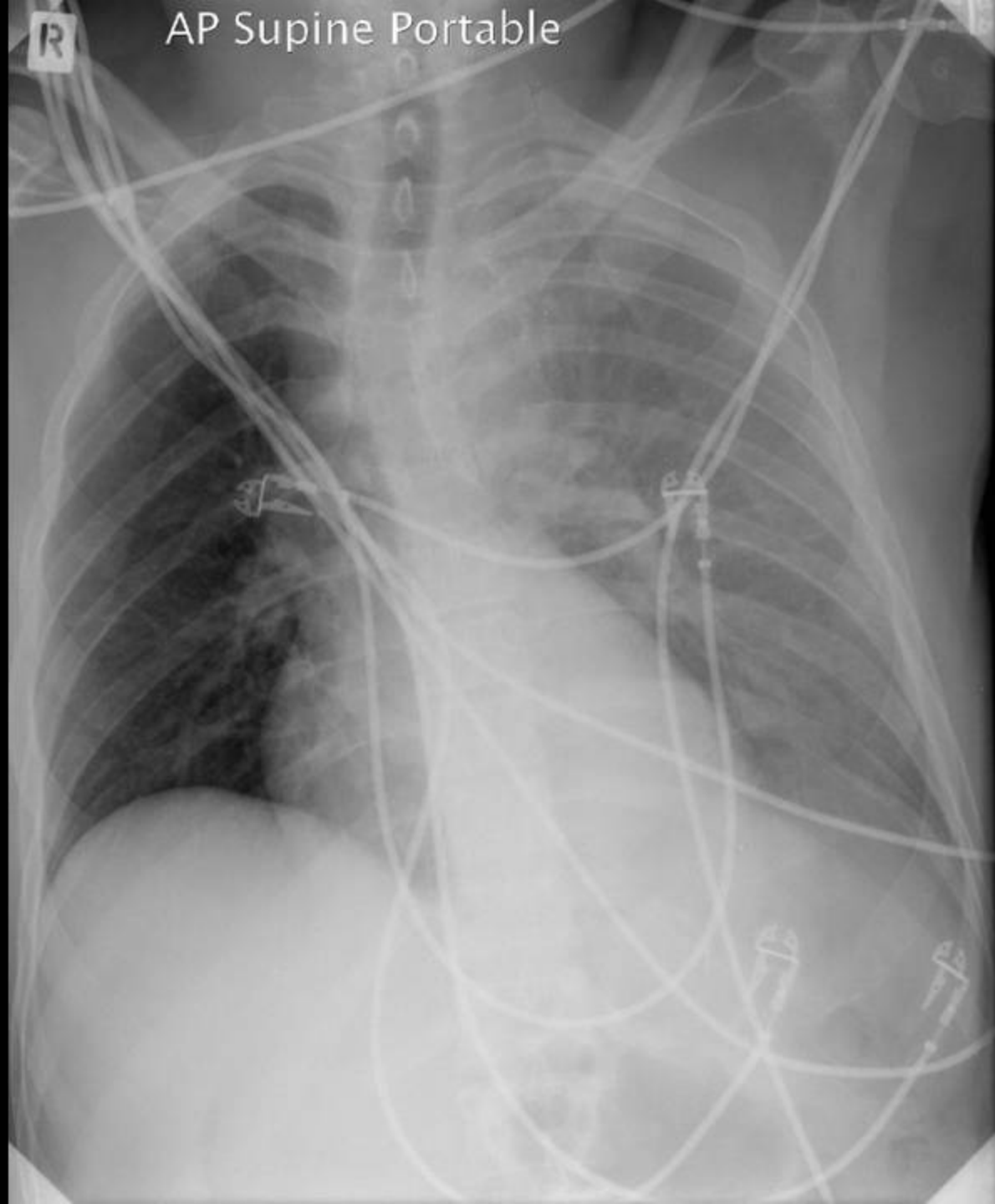


# Penetrating cardiac injury

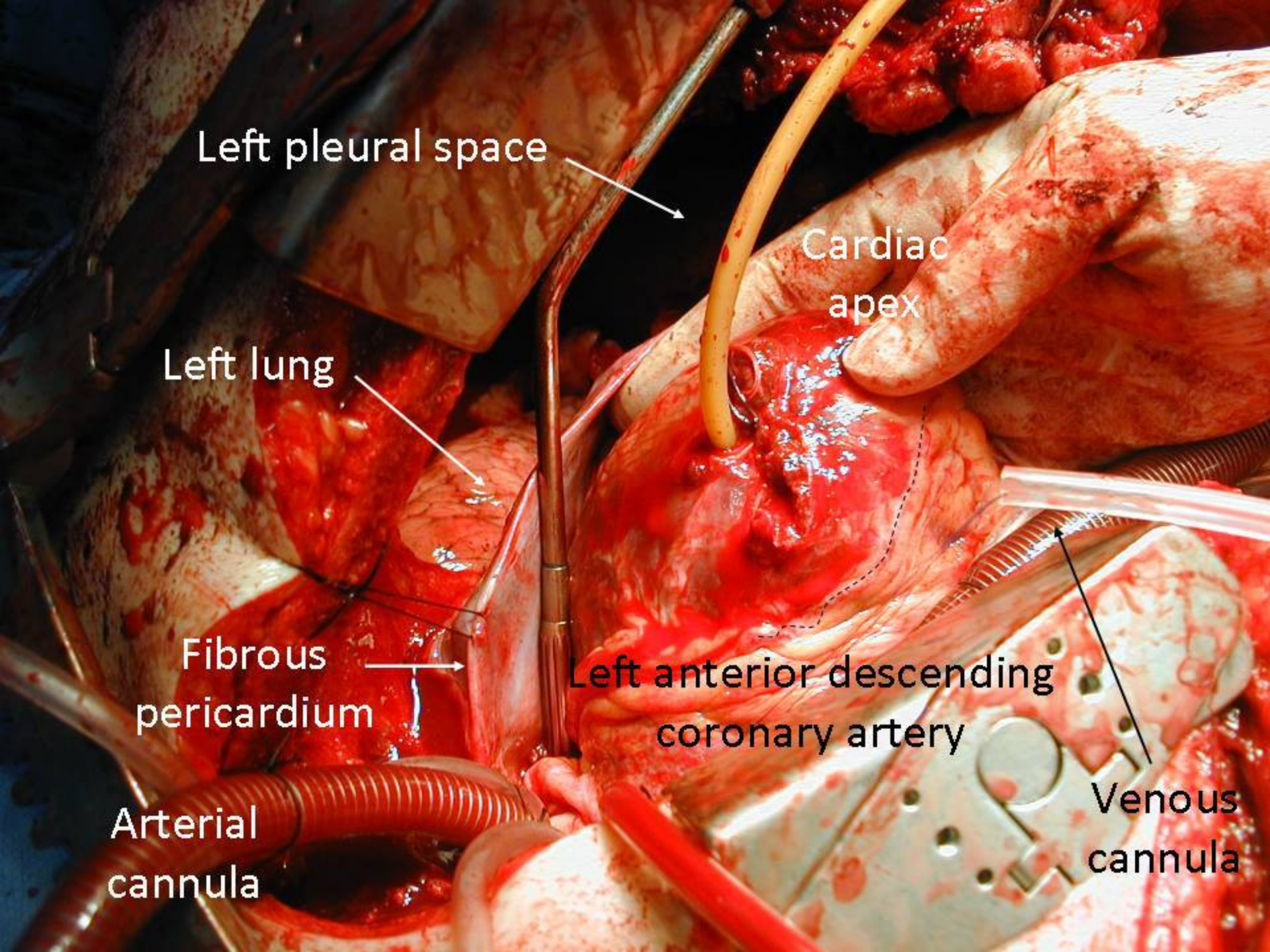


R

AP Supine Portable







Left pleural space

Cardiac  
apex

Left lung

Fibrous  
pericardium

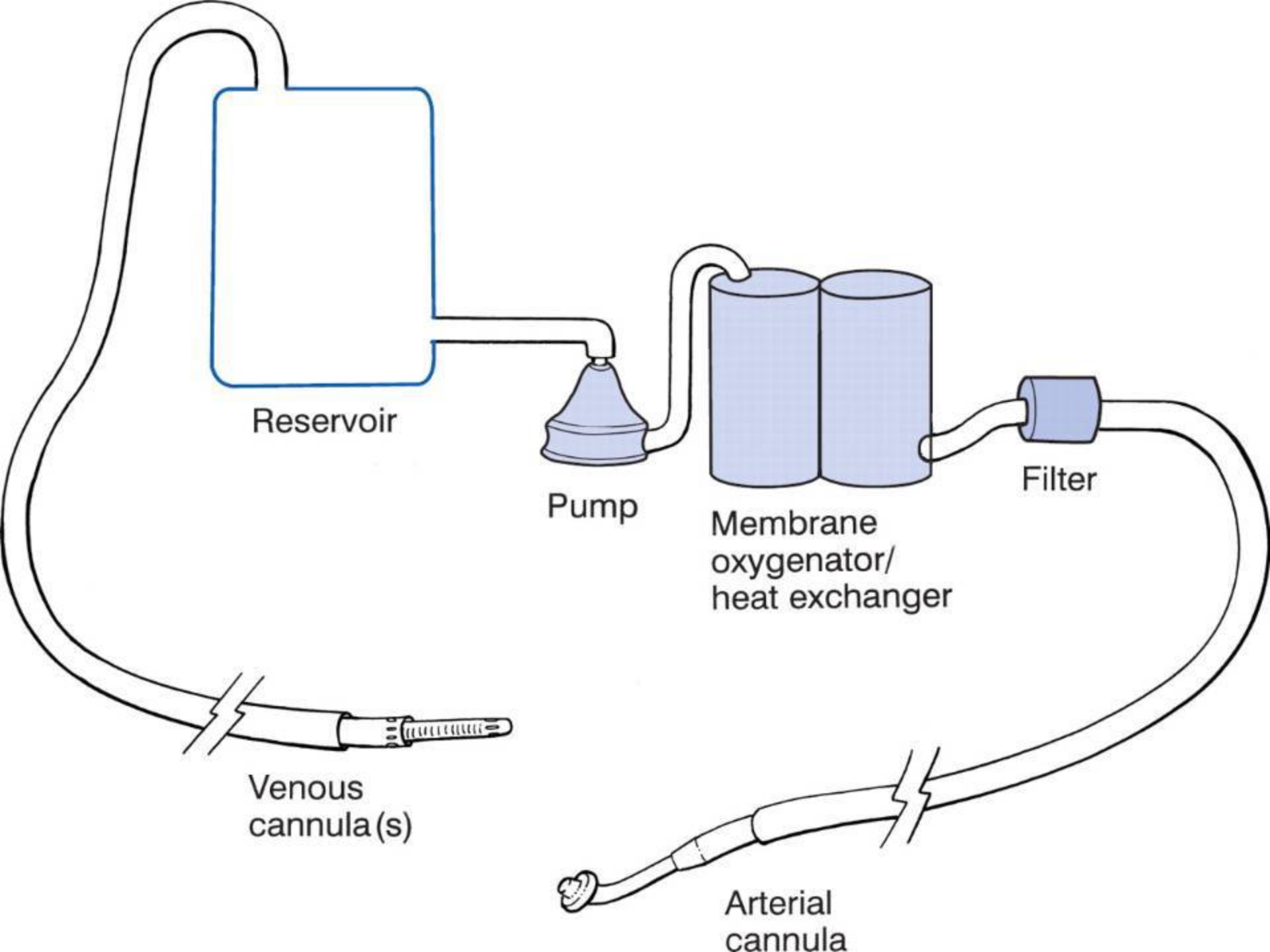
Left anterior descending  
coronary artery

Arterial  
cannula

Venous  
cannula











Exsanguination is the greatest threat

Haemothorax: an ominous sign

CPB can be life-saving



Ludwig Rehn  
1896



Stephen Paget  
1896



Knife  
removed

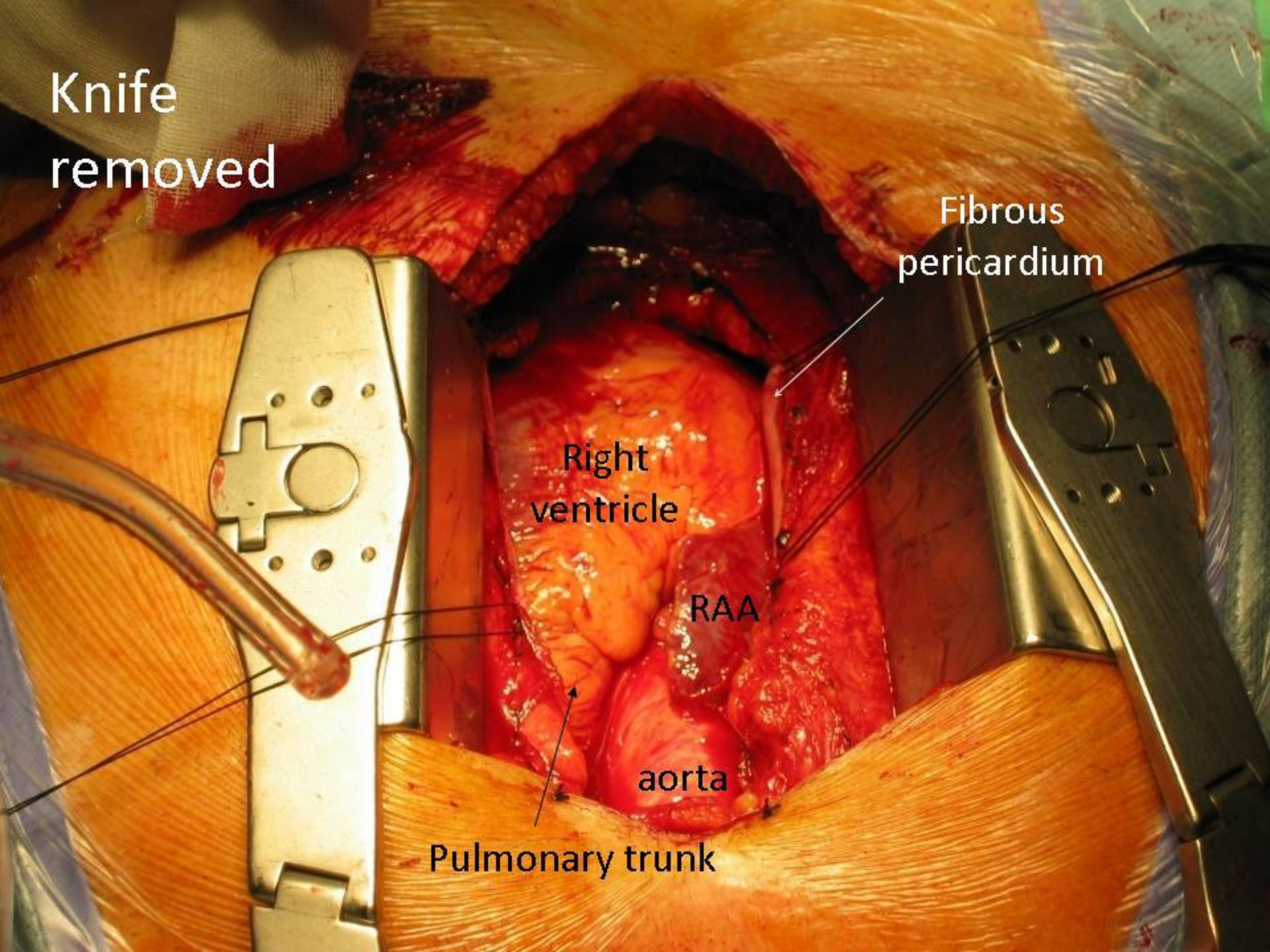
Fibrous  
pericardium

Right  
ventricle

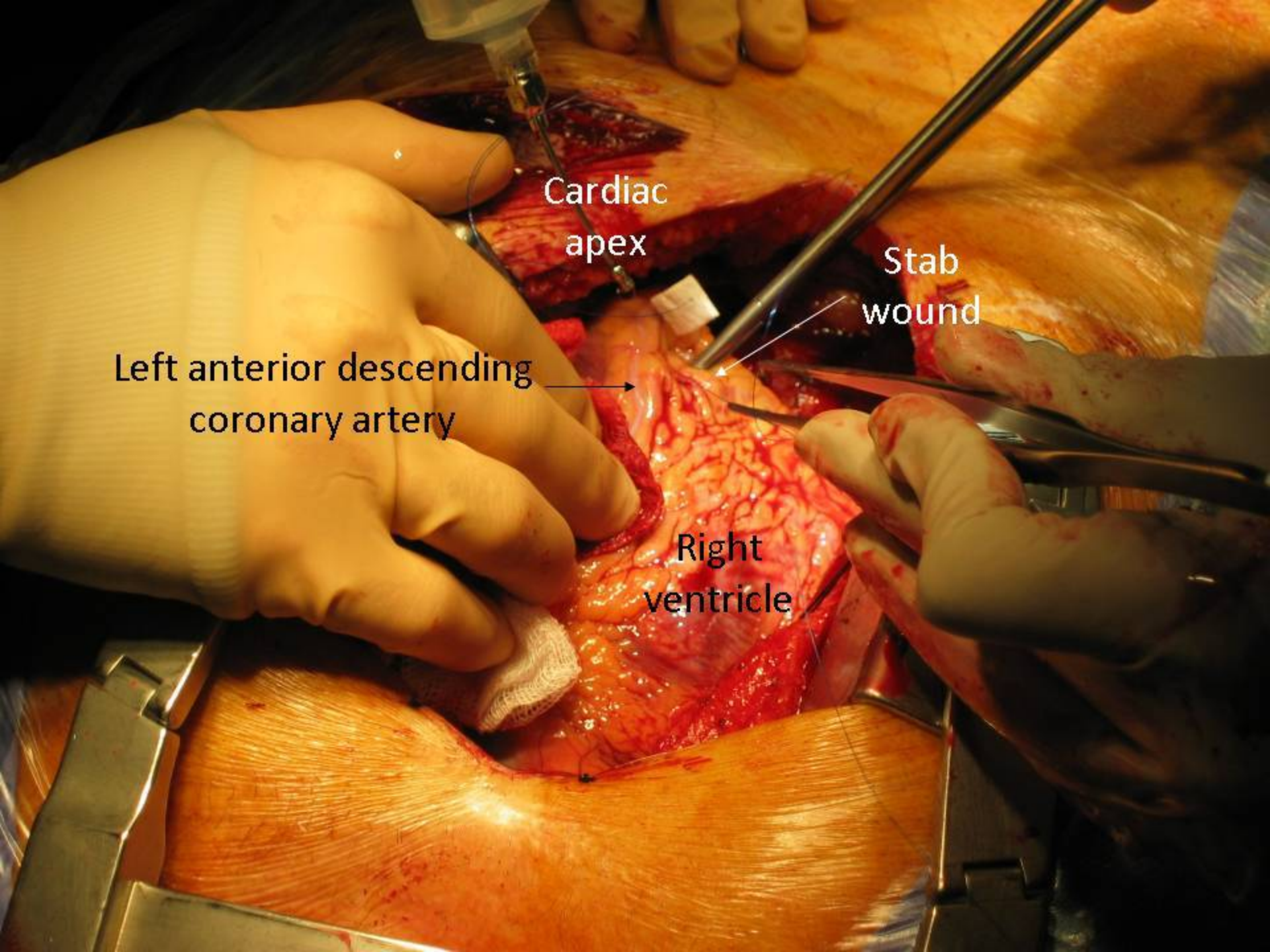
RAA

aorta

Pulmonary trunk







Cardiac  
apex

Stab  
wound

Left anterior descending  
coronary artery

Right  
ventricle





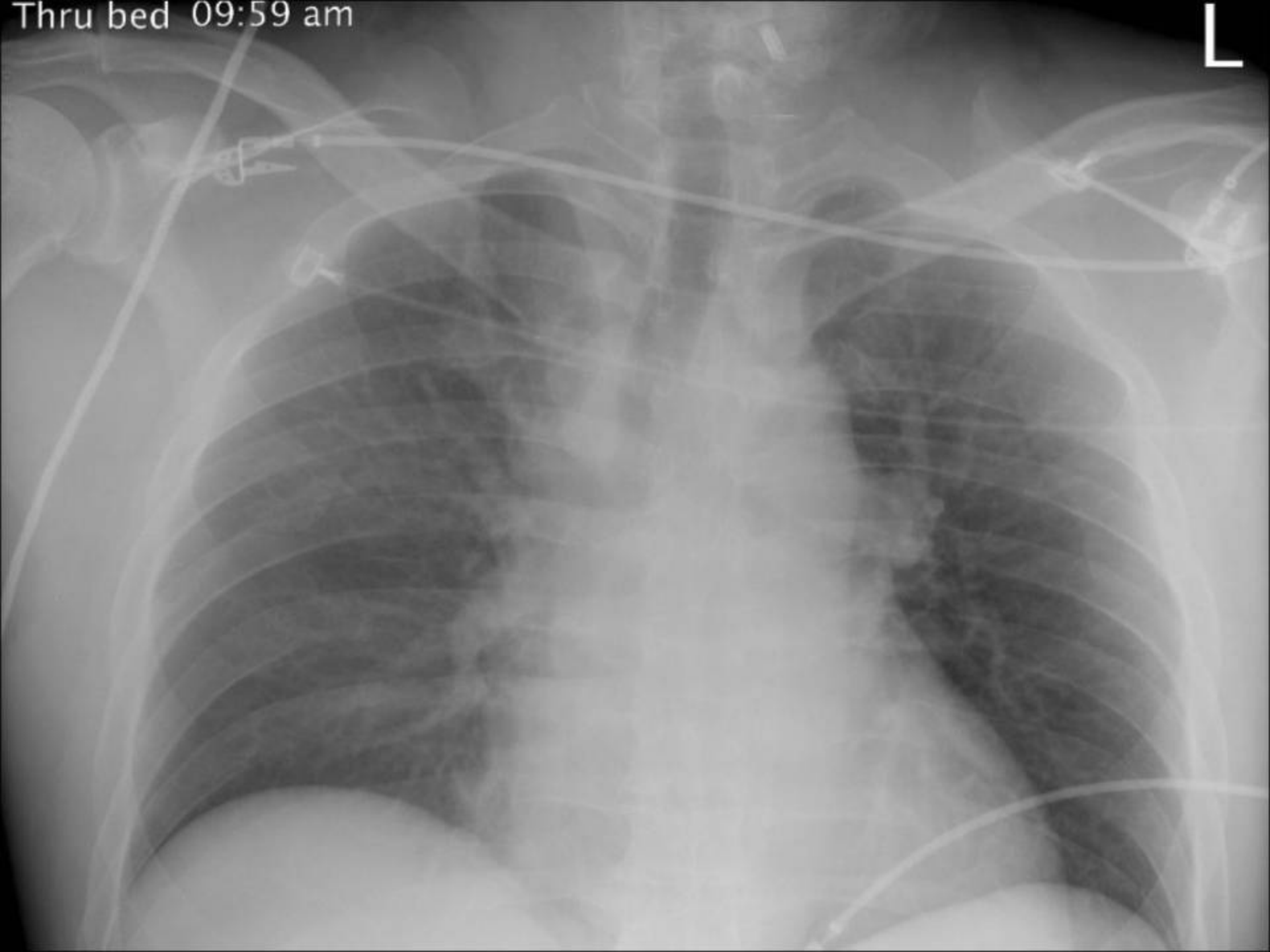
Clinical presentation is highly variable

RV most frequently injured chamber

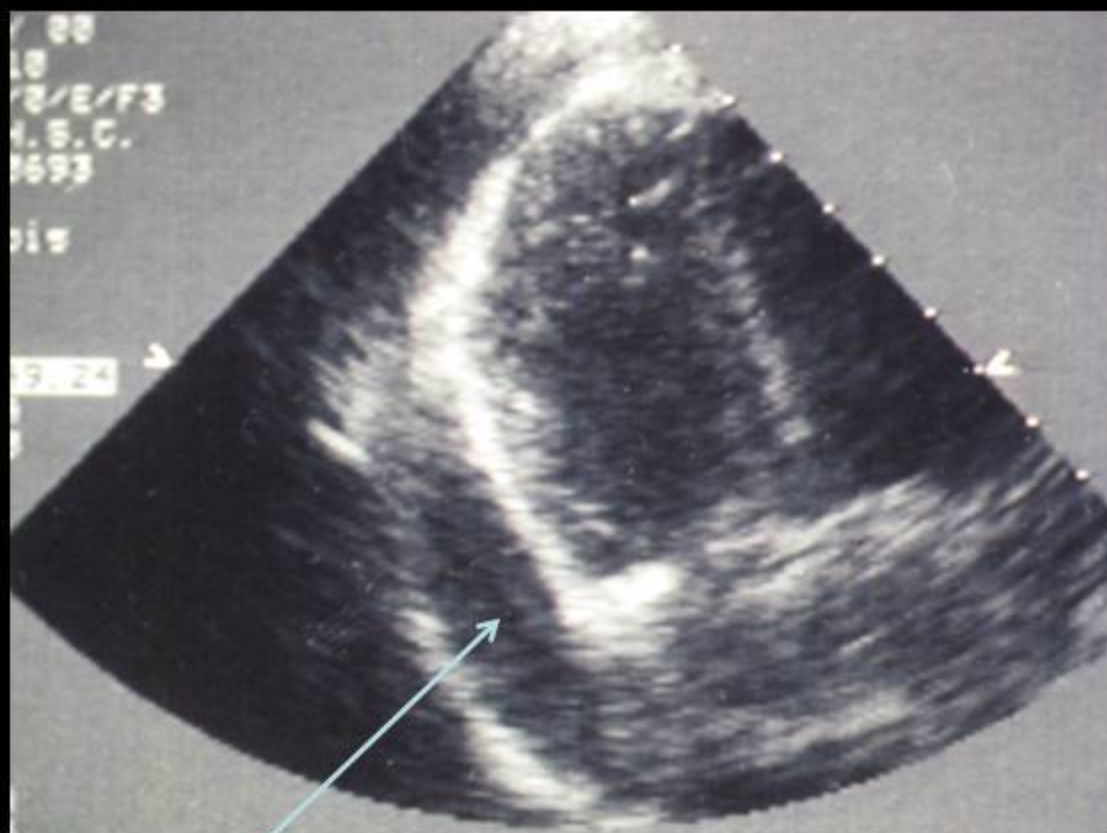
Median sternotomy affords best access

Thru bed 09:59 am

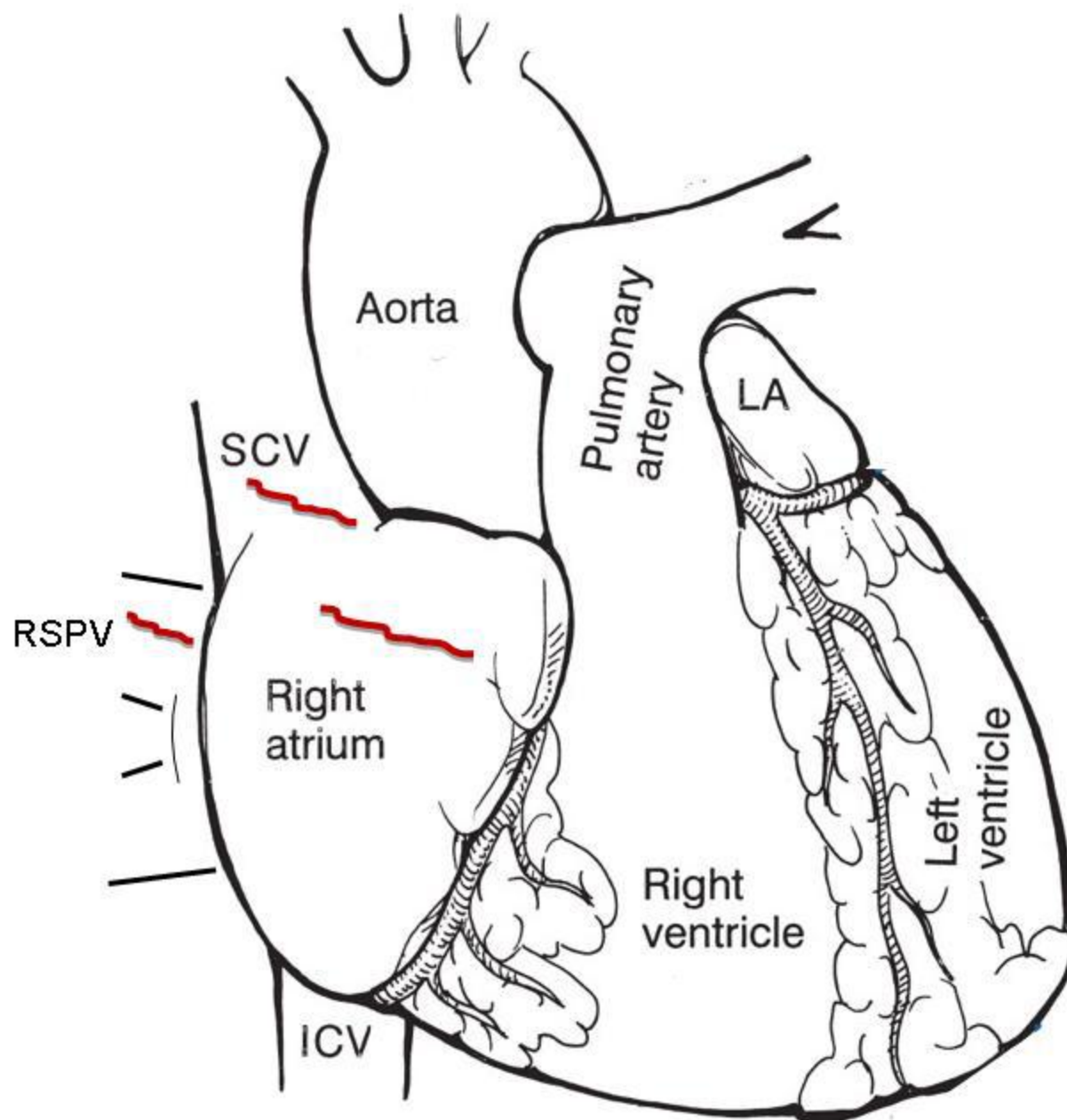
L







Pericardial  
effusion







1/3 heart lies to right of midline

Tamponade: unique & life-threatening  
manifestation of cardiac injury

Ultrasound is useful (but not infallible)