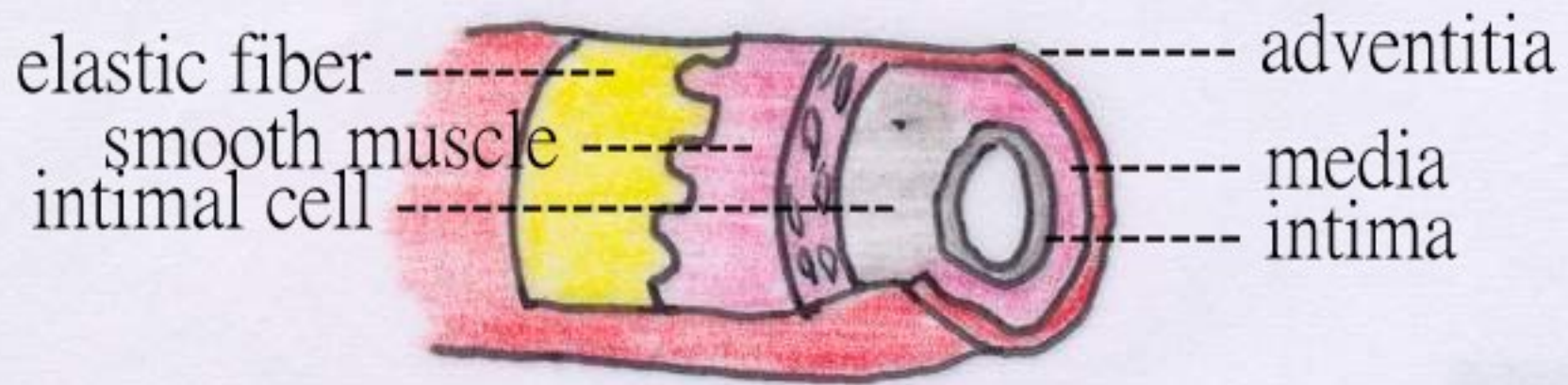


Ischemic heart disease

Andrew Ying-Siu Lee, MD, PhD.

Artery

- artery is made up of 3 layers : intima, media and adventitia



- artery is classified as: 1. large artery (elastic artery): with elastic fiber and smooth muscle so as to lessen blood pressure

2. medial artery (muscular artery) : with smooth muscle so as to control vessel tone

3. small artery

large artery (elastic artery)

Atherosclerosis

1. atherosclerosis (large artery)

2. medial calcification (medial artery)

3. arteriosclerosis (small artery)

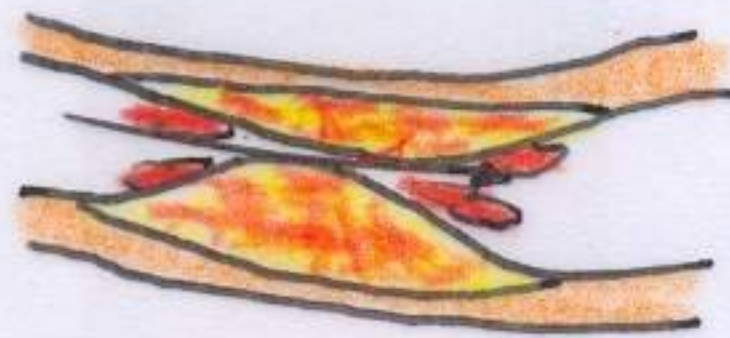
Coronary atherosclerosis

risk factors --> damage to intima of coronary artery --> lipid, plaque deposit on coronary artery = coronary atherosclerosis --> enlargement of plaque, inflammation, coronary stenosis --> myocardial ischemia (angina) --> plaque rupture, activate coagulation, thrombus formation, coronary obstruction --> acute coronary syndrome : unstable angina (severe coronary obstruction), myocardial infarction (total coronary obstruction)

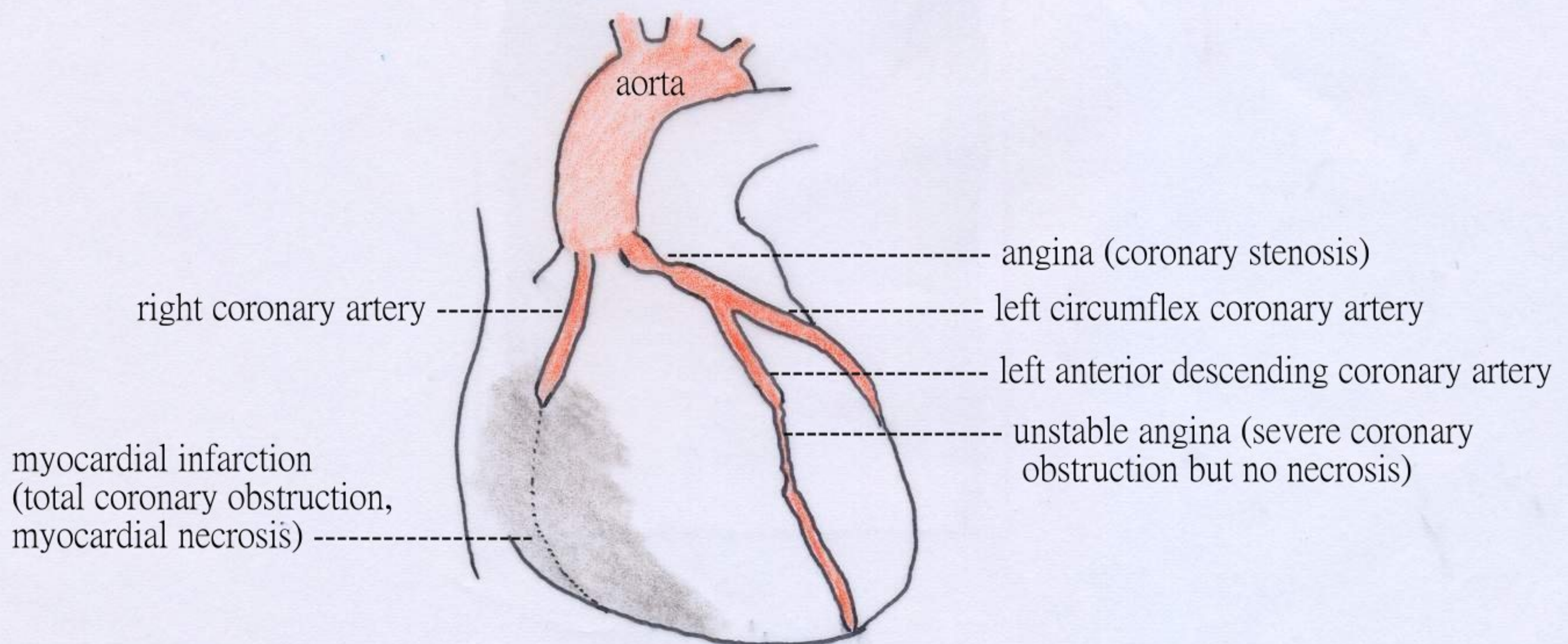
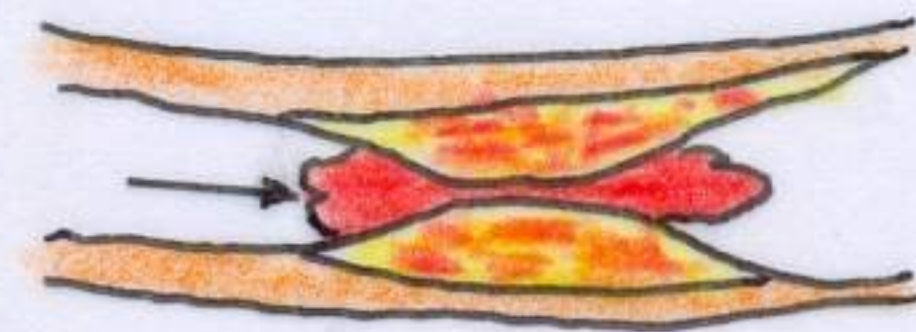
coronary stenosis (angina)



thrombus formation, severe coronary obstruction (unstable angina)



thrombus formation, total coronary obstruction (myocardial infarction)



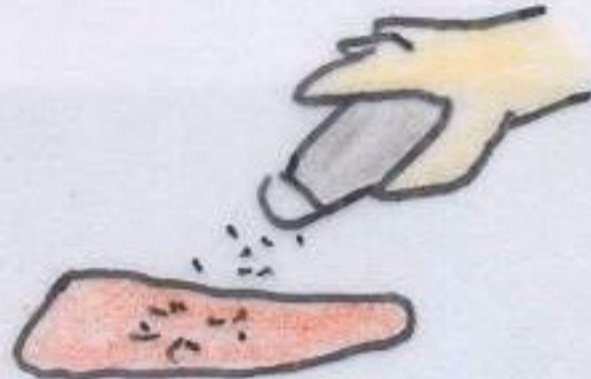
Coronary circulation and ischemic heart disease

Risk factors of ischemic heart disease

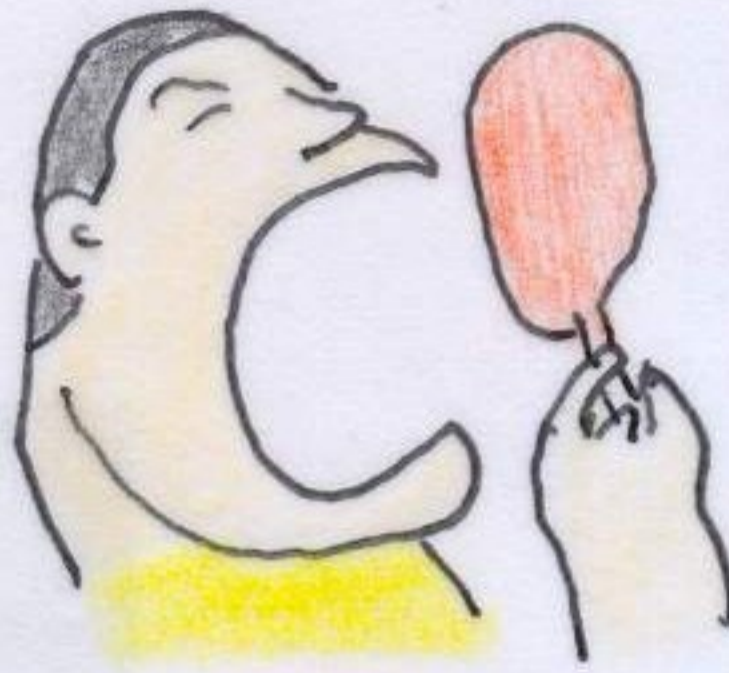
smoking



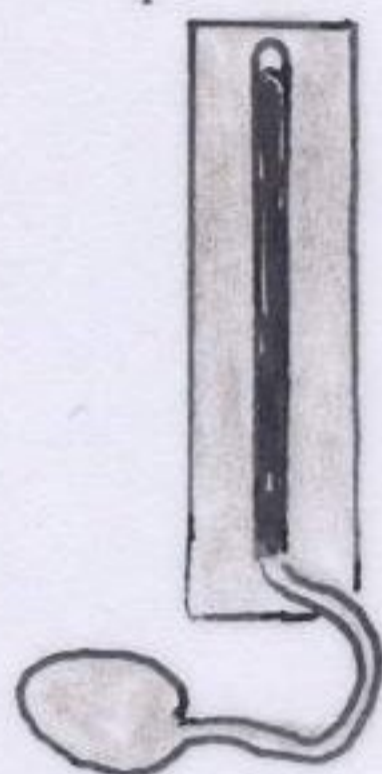
salty diet



eat too much



hypertension



insomnia, emotional upset



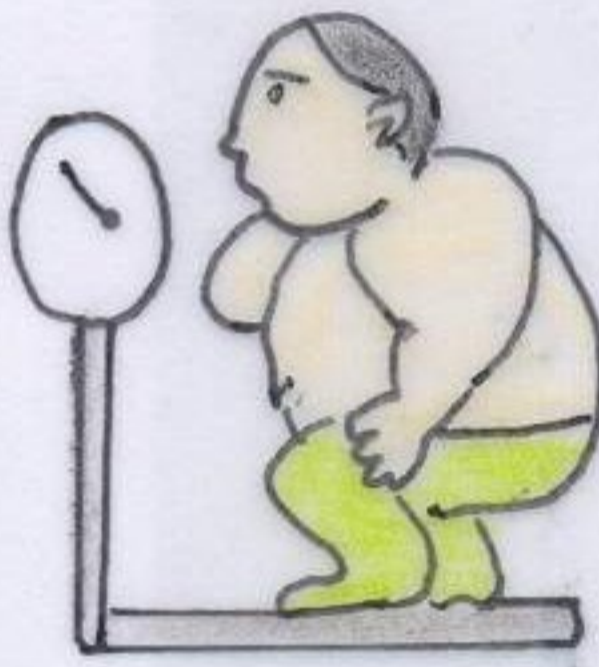
stressful life



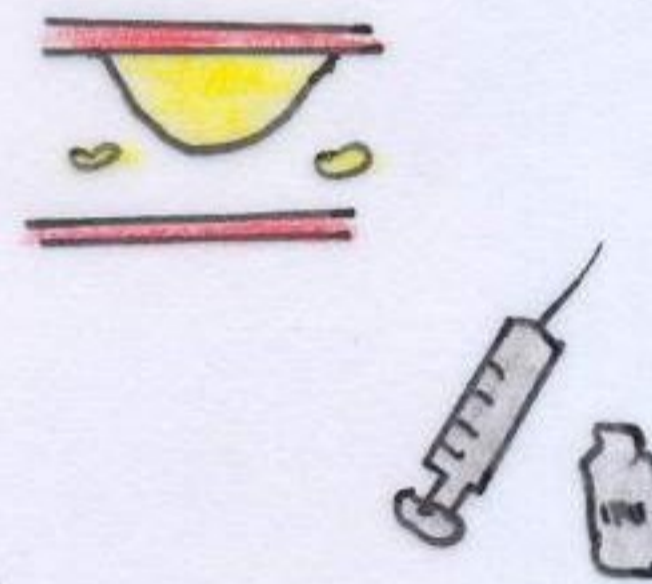
sedentary



overweight

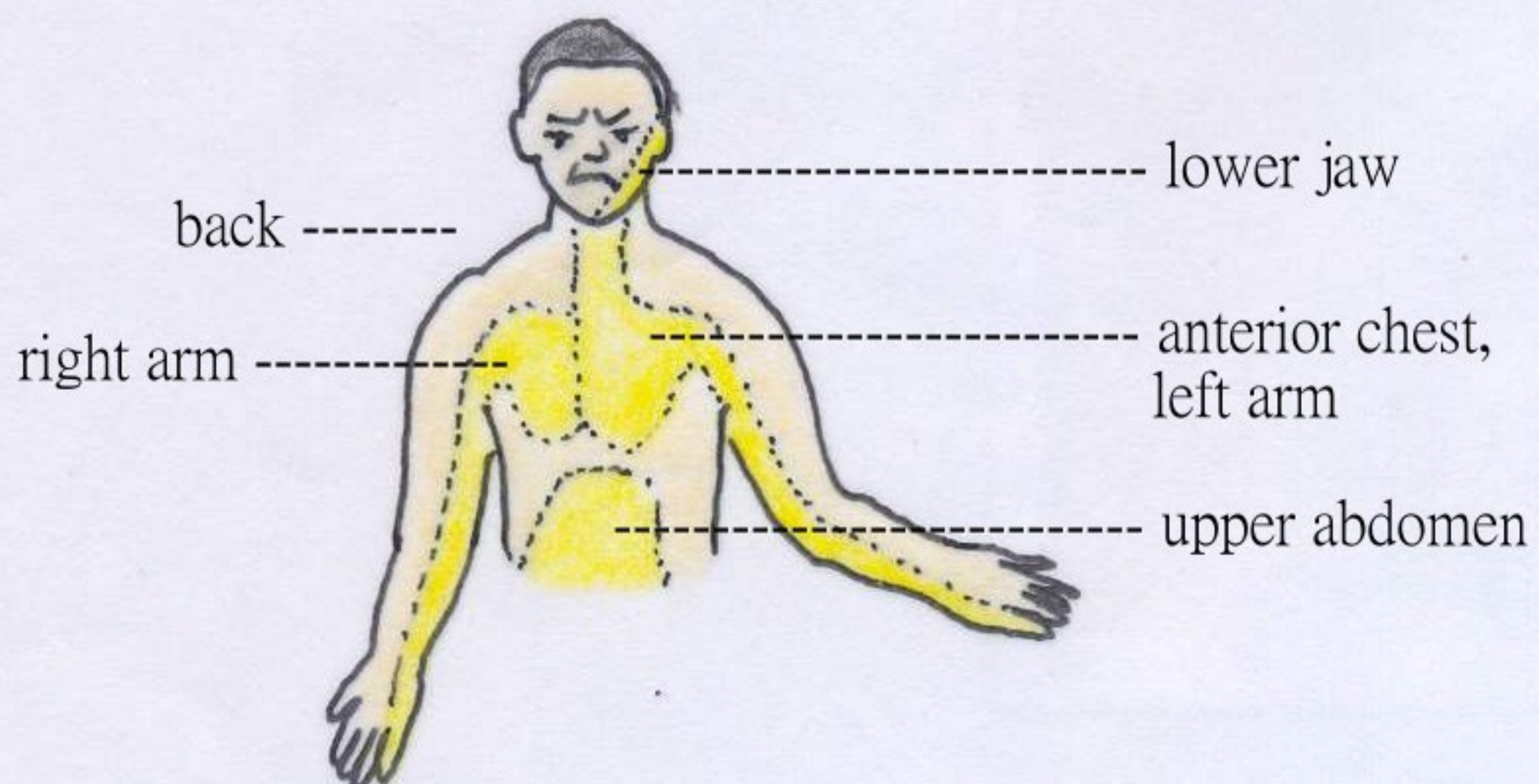


hyperlipidemia, diabetes



Symptoms of ischemic heart disease

chest tightness pain discomfort and radiation



dyspnea



dizziness, syncope



pallor, cold sweating



palpitation



Diagnosis of ischemic heart disease

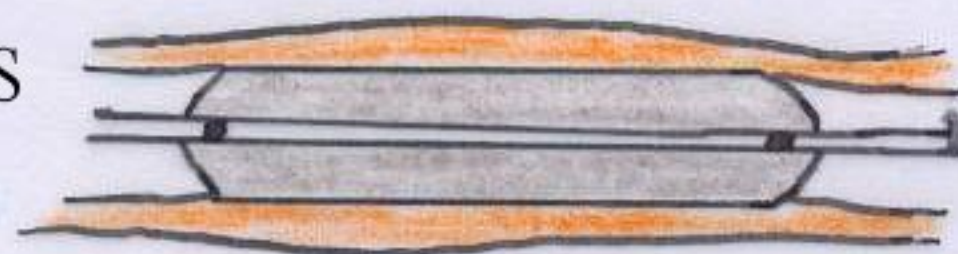
history
electrocardiogram
blood examination
X ray
exercise test
scintigraphy
64 slices spiral CT
cardiac catheterization

Management of ischemic heart disease

1. drugs



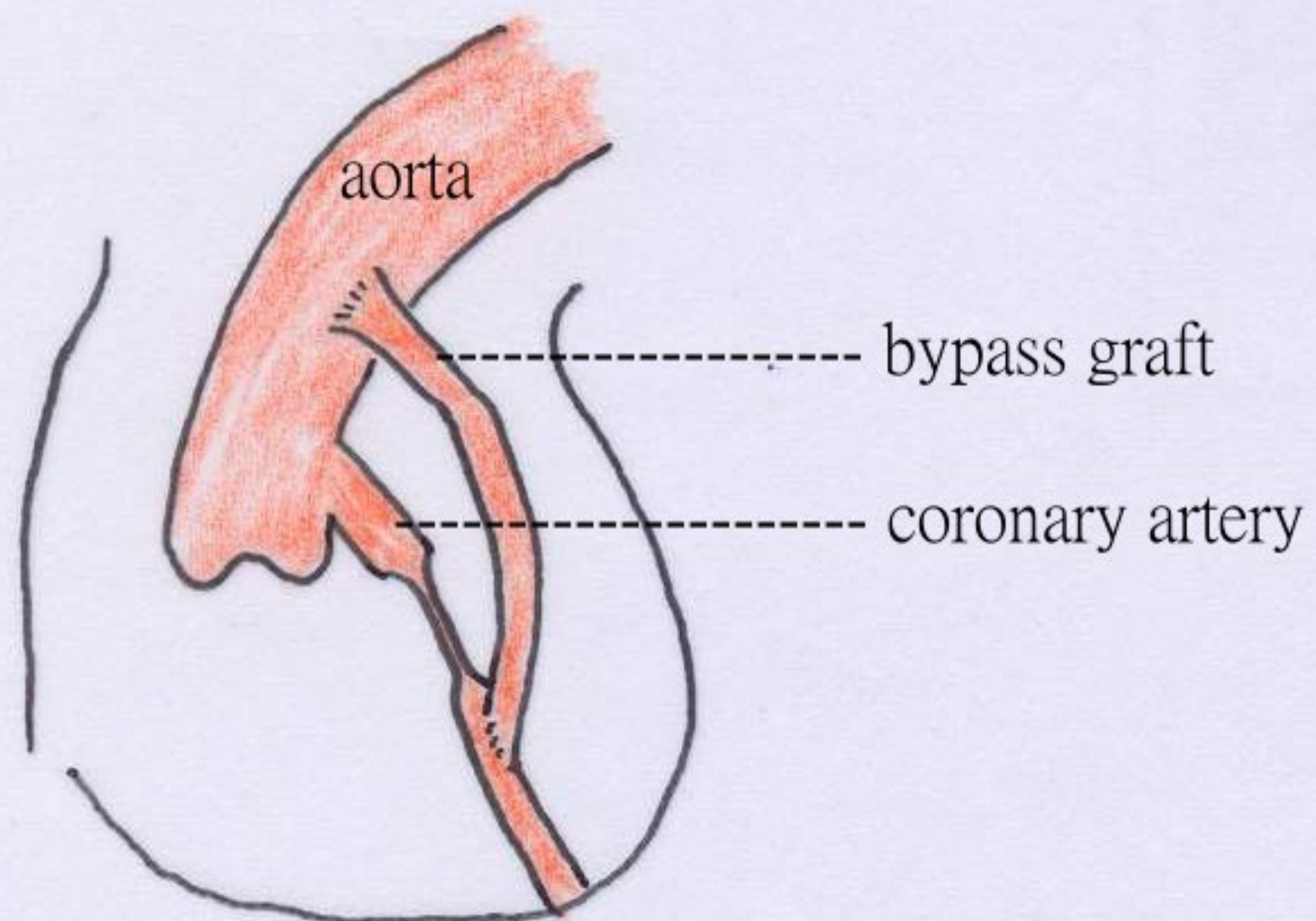
2. coronary interventions



angioplasty



stent



3. coronary artery bypass surgery