Objectives To study the angiographic features and effects of drug treatment of spontaneous coronary artery dissection (SCAD).

Methods Data from coronary angiography performed in 2458 patients that from Department of cardiology, No 252 Hospital of PLA, were analysed to discover SCAD. The following image changes is judged to be SCAD: (1) The translucent line in age formed by intimal dissection was looked transluminal coronary, the line image parallel or spiral to the luminal; (2) Contrast agent filling the false lumen, the true lumen narrows with or without change, contrast agent emptied delay or stagnation in the false lumen; (3) The isolated intimal dissection flap swinging with the blood flow transluminal coronary. To analyse the imaging characteristics and the effect of drug treatment. (including aspirin 0.1 g/d, Clopidogrel 75 mg/d, Low molecular weight heparin 6000 U/d and so on).

Results SCAD is that without human intervention, the coronary artery intima tore spontaneously, or subintimal haematoma formation, also known as spontaneous coronary artery intimal tear. Two cases of SCAD were discovered. The incidence was 0.81‰. Mainly related to the young women that of pregnancy, puerperium, using oral contraceptive, at the age of about 30 years old, without hypertension, diabetes, hyperlipidaemia, smoking, family history and other risk factors, both were acute myocardial infarction. Coronary angiography confirmed that coronary artery without significant atherosclerosis in two patients, the true lumen compressed not obviously, dissection occurred in the right coronary artery, blood TIMI Level 3, no stents were implanted. Myocardial enzymes elevated not obviously, clinical symptoms of the patients were significantly alleviated after aggressive antithrombotic drug therapy, myocardial enzymes returned to normal, cardiac ultrasound showed normal or mildly abnormal wall motion, discharge when the condition was stable.

Conclusions SCAD is rare, low incidence, mainly related to young women, myocardial infarction happened first in the most cases. The treatment of coronary artery dissection, there is no uniform standard currently, but there’s successfully reported that the implantation of stents in the treatment of coronary artery dissection, the dissection at the edges of stents and in-stent restenosis was not completely solved, The patients which coronary angiography confirmed that coronary artery without significant atherosclerosis, the true lumen compressed not obviously, blood TIMI Level 3, drug therapy could also be used as the ideal treatment method.