临床病理讨论
Clinicopathological Conference

A very old case of acute coronary syndrome

(the 41st case)

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Case presentation

A 83-year-old male patient was admitted to the First Hospital of Peking University on December 29, 2009 because of aggravation of intermittent chest pain for one month. The case suffered a dull or sharp chest pain with effort for 30 years. The pain can be relieved by rest or taking nitroglycerin. It attacked more than 10 times a year. The patient never took any regular examination or treatment. One month ago, the patient began to feel a strong pain after meal or with effort without any precipitating factor, accompanied with chest compression, nausea and muscle soreness of both shoulders. The pain attacked several times a day, but still ould be relieved by rest or taking nitroglycerin. The patient presented with a past medical history of hypertension and lipid abnormality. He had no smoking or alcohol drinking habit. He reported a family history of hypertension and coronary heart disease.

Physical examination: The blood pressure was 130/70 mmHg, pulse rate 70/min, respiratory rate 18/min, and heart rate 70/min. The border of cardiac dullness was normal, and no cardiac murmur was heard. No function disturbance in spine and extremities was found. No pathological reflex was detected.

Accessory examination: Liver and kidney function was normal. Electrolyte concentration was in normal range. creatine kinase(CK), CK-MB isoenzyme and cardiac troponin I (cTNI) were normal. The patient had taken fluvastatin (40 mg/d) for a long time. LDL-C was 3. 04 mmol/L. Electrocardiogram (ECG): asymptomatic ECG is shown in Fig 1, and ECG during angina attacking in Fig 2.

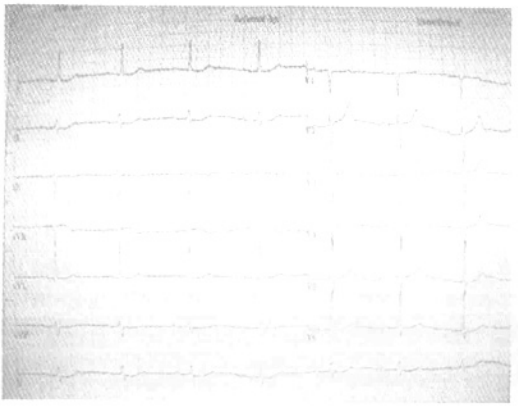

Fig 1 Asymptomatic ECG

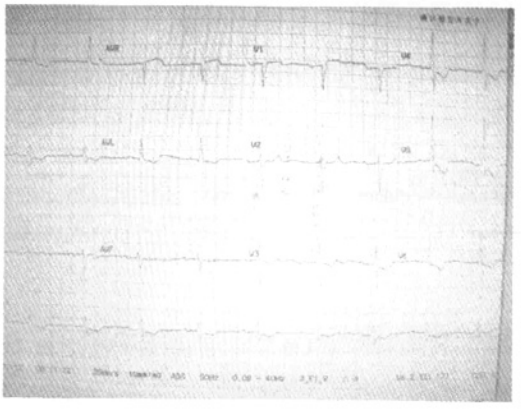

Fig 2 ECG during angina attack

Admission diagnosis: (1) Acute coronary syndrome (ACS), unstable angina pectoris (UAP); (2) hypertension, grade 3, very high risk; (3) lipid abnormality.

Treatment procedure: After admission, the patient was given double antiplatelet therapy with aspirin, clopidogrel and low molecular weight heparin immediately, as well as beta-blocker, angiotensin conver-

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ting enzyme inhibitor(ACEI) and statin, but the patient still complained chest pain. During angina attack, ST-segment depressed obviously and CK-MB and cTNI increased to 6 μg/L and 0.8 μg/L, respectively. Echocardiography showed enlarged left atrium, left ventricular ejection fraction (LVEF) of 58.7%, mitral regurgitation, and possible rupture of chordae tendineae. Coronary angiography showed that left main (LM) stenosis was >85%, proximal-median of left anterior descending (LAD) stenosis >95%, distal of LAD stenosis 95%, right coronary artery (RCA) stenosis > 95%, left circumflex coronary artery(LCX) total closure from proximal(Fig 3). The patient was advised to take revascularization therapy, but he and his families refused. So we changed the therapeutic regimen from fluvastatin 40 mg/d to rosuvastatin 10 mg/d. His LDL-C decreased to 1.6 mmol/L, and his heart rate was well-controlled (50/min at rest and 65/min in exercise) by using beta-blocker. Then, the patient's condition got stabilized gradually and no chest pain was reported. According to follow-up visit after discharge from the hospital, the patient had occasional complain of chest pain or discomfort in his daily life, but the symptoms can be relieved immediately after rest or taking nitroglycerin.

Clinical discussion

Dr. LI Shaofei: This is a case of non-ST-segment elevation ACS. Risk stratification is important for designing therapeutic strategy. There are several kinds of methods for risk stratification, such as the Thrombolysis in Myocardial Infarction(TIMI), the Grobal Registry of Acute Coronary Events (GRACE), and the Platelet glycoprotein Ⅱb/Ⅲa in unstable Angina: Receptor Suppression Using Integrilin Therapy(PURSUIT) scores. According to the three scores, this case belongs to very high risk level. If the patient suffered repeated attack of agina pectoris even after intensive drug therapy, revascularization should be considered as soon as possible.

Dr. TIAN Qingping: Coronary angiography showed that this case had severe left main and triple vessel lesions, with definite indication of revascularization. But concerning the relative risks, the patient and his families refused revascularization, so drug therapy became the only choice of treatment. Treatments, including antithrombosis, lipid regulation, myocardial ischemia alleviation, and decrease of myocardial oxygen consumption, should be taken in consideration. When the patient had unstable condition and suffered frequent attack, double antiplatelet therapy, asprin and clopidogrel plus low molecular weight heparin were administrated. Rosuvastatin, which can reverse the plaque according to evidence-based studies, was used to control LDL-C to a lower level. Ester nitrate was applied reasonably to avoid drug resistance. Beta blocker was used to slow down the heart rate and to decrease myocardial oxygen consumption. ACEI was used to improve endothelial function, inhibit plaque progression, and improve the

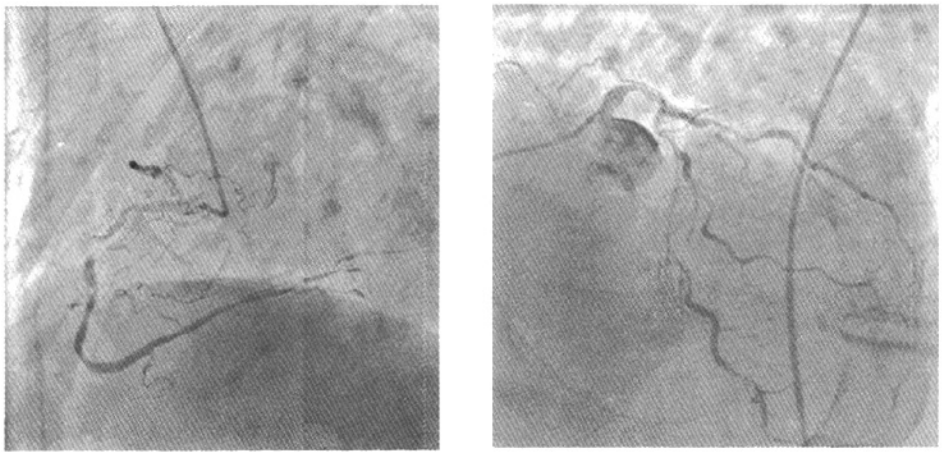

Fig 3 Coronary angiography

prognosis. Trimetazidine was used to improve myocytes metabolism and help to alleviate the symptom. After comprehensive medications, the patient's condition was greatly improved, and his daily life quality can be guaranteed.

Dr. LIU Meilin: Coronary lesions in aged patients are usually severe and accompanied with diabetes, lipid disorder, hypertension, heart failure, kidney failure or respiratory problems, which will make the situation much worse. For aged patients, it is difficult to target the "culprit" vessels, and perform percutaneous intervention(PCI). Besides, bleeding is an another risk due to long-term double antiplatelet therapy. So individualized treatment is of the best choice for aged patients. Although high risk patients can benefit from revascularization, aged patients usually prefer conservative drug therapy. PCI just alleviated the symptoms instead of improving prognosis in patients with stable angina pectoris. So whether choosing revascularization or not, rational drug therapy and life style change are the basis for treatment of coronary heart disease.

Final diagnosis: (1) ACS, non-ST elevation myocardial infarction; (2) Hypertension, grade 3, very high risk; (3) Lipid metabolism disorder.

(Translator: TIAN Qingping)

高龄老年急性冠脉综合征 1 例

1 病历摘要

患者男性，83 岁，因间断心前区不适 30 余年，加重月余于 2009 年 12 月 29 日入院。患者劳力时出现心前区疼痛 30 余年，为闷痛或刺痛，伴大汗，休息或含服硝酸甘油明显缓解，每年发作 10 余次，未诊治。1 个月前无诱因出现餐后或劳力时心前区压迫性疼痛，伴胸闷、恶心及双侧肩部酸痛，休息或含服硝酸甘油后数分钟缓解，每天数次发作。有高血压、高血脂症等病史。不嗜烟酒。有高血压和冠心病的家族史。

查体：血压 130/70 mmHg，脉搏 70 次/min，呼吸 18 次/min，心界不大，心率 70 次/min，心律齐，各瓣膜区未闻及杂音及附加心音，双下肢无水肿，腹部及神经系统查体未见异常。

辅助检查：肝肾功能、电解质正常；CK、CK-MB、cTNI 均正常。长期服用氟伐他汀，低密度脂蛋白胆固醇(LDL-C)3.04 mmol/L。无症状时心电图见图 1，发作胸闷时心电图见图 2。

入院诊断：(1)急性冠脉综合征，不稳定型心绞痛，(2)高血压病 3 级 极高危，(3)血脂异常。

诊疗经过：入院后给予阿司匹林和氯吡格雷双联抗血小板，低分子肝素抗凝，硝酸酯类药物以及 β 受体阻滞剂、ACEI、他汀等药物治疗，同时虽加用了 PPI 和胃黏膜保护剂后，患者仍然稍微活动即有胸闷发作，发作时心电图缺血性改变明显，CK-MB 升高到 6 μg/L，cTNI 升高到 0.8 μg/L。超声心动图提示左房增大，LVEF 58.7%，未见室壁运动异常，舒张功能下降，二尖瓣反流，小腱索断裂不除外。冠脉造影提示左主干和 3 支病变，左主干管状病变狭窄＞85%，前降支近中段最重狭窄＞95%，远段最重狭窄 95%、右冠第一屈膝部狭窄＞95%，回旋支自近段完全闭塞(图 3)。建议患者行冠脉搭桥术，但患者及家属拒绝接受任何血运重建手术治疗，坚决要求药物保守治疗。遂在双联抗血小板和 β 受体阻滞剂、ACEI 以及硝酸酯类药物治疗的基础上，将氟伐他汀 40 mg/d 换为瑞舒伐他汀 10 mg/d，使 DLD-C 降至 1.6 mmol/L，将心率控制在静息时 50 次/min、活动时 65 次/min 左右。患者症状逐渐稳定，在病房内一般活动没有胸闷胸痛发作。出院后随访至今，患者病情平稳，日常生活中偶有胸闷、胸痛发作，含服硝酸甘油或休息后症状可以迅速缓解。

2 临床病例讨论

栗少飞医师：这是一位非 ST 段抬高急性冠脉综合征患者，首先应根据危险分层决定治疗策略，常用的危险分层方法有 TIMI 评分、GRACE 评分和 PURSUIT 评分等。本病例属于极高危患者，根据 ESC 关于非 ST 段抬高急性冠脉综合症的指南，在积极药物治疗后仍反复有心绞痛发作者，应及早行血运重建手术治疗。

田清平副主任医师：冠脉造影显示本例患者存在严重的左主干和 3 支病变，具有血运重建治疗的适应证。尽管过去的研究显示血运重建手术使高龄老年患者获益，由于大于 80 岁的不稳定型心绞痛患者手术的风险增加，在患者和家属不能积极配合的前提下，药物保守治疗成为本患者唯一的选择。抗栓、调脂、改善心肌缺血和降低心肌耗氧量等积

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(收稿日期：2008-06-04；修回日期：2009-01-08)

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极药物治疗成为改善患者心绞痛症状的主要措施。患者症状频发、病情不稳定时，给予双联抗血小板治疗加用低分子肝素抗凝治疗；使用有逆转斑块循证医学证据的瑞舒伐他汀，使LDL-C达到血脂指南推荐的极高危患者目标水平甚至更低，以期获得稳定斑块减少心血管事件的作用；合理选择硝酸酯类药物，避免因持续大量使用导致的耐药，对改善心肌供血缓解心绞痛症状有良好疗效；β受体阻滞剂减慢患者心率，有效降低心肌耗氧量，根据指南静息心率可降至50次/min；ACEI改善血管内皮功能，抑制斑块进展，长期使用对缓解心绞痛症状、改善冠心病患者预后有充分临床证据；此外，曲美他嗪等改善心肌细胞代谢，也有助于缓解患者心肌缺血症状。尽管该患者的冠脉病变非常严重，经过充分药物治疗，心绞痛症状明显改善，可保证患者基本的生活质量。

刘梅林教授：高龄冠心病患者常同时合并糖尿病、血脂异常、高血压、心功能不全、肾功能损害或呼吸系统疾病等，病情复杂，导致诊治困难。高龄患者常见多支、多处血管病变，导致罪犯血管识别困难；血管钙化、迂曲，使介入治疗手术难度大；此外，围手术期及术中、术后出血等并发症发生率增加，长期双重抗血小板治疗出血危险增加。因此，高龄冠心病患者治疗方案选择应该高度个体化。尽管对于高龄高危患者血运重建治疗可以使其获益，但是高龄老年患者更多采用药物保守治疗。对于稳定型冠心病患者，介入治疗仅在一定时期内改善患者症状，与积极的药物治疗比较，介入治疗的优势在于改善心绞痛症状，而对预后没有显著改善。因此，无论是否采用血运重建治疗，合理的药物治疗和生活方式的改变是冠心病治疗的基石。

最后诊断：(1)急性冠脉综合征 非ST段抬高性心肌梗死，(2)高血压病3级 极高危，(3)血脂异常。

(参加讨论医师：栗少飞，田清平，刘梅林)

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(收稿日期：2010-06-30；修回日期：2010-08-30)