

CASE REPORT

**Anxiety and depression in a patient with an implantable
cardioverter defibrillator for early repolarization syndrome: A case
report and clinical discussion**

Supplementary File

(A) Laboratory and surgical findings



Figure S1. Echocardiography results

手术名称: 冠状动脉造影术	
麻醉方式:(麻醉方式) 局部麻醉	
手术者:	一助: 二助: 麻醉医师: 护士
手术经过:	
体位: (仰卧位)	皮肤消毒: (安尔碘)
切口部位、方向、长度: 右手腕横纹上方2cm处米粒大小。	
术中改变手术方式: (否)	理由: —
签署知情同意书: (是)	
引流材料名称: - -	数目: - - 放置部位: - -
送验标本名称: - -	
术中用药(麻醉药品除外): 肝素钠 2000u iv 输血: —	
在DSA室施术, 患者平卧, 常规消毒铺巾, “1%利多卡因”局麻, 以Seldinger法穿刺右桡动脉, 置入6F鞘, 静推2000u肝素钠后, 鞘中送入泰尔茂左右冠共用造影导管顺利进入左冠脉口, 注入“碘克沙醇”, 显示左冠脉各分支走行自然, 血流通畅, 前降支中段心肌桥, 余未见明显狭窄; 再将共用造影导管送入右冠口, 注入“碘克沙醇”, 显示右冠脉走行自然, 血流通畅, 未见明显狭窄。退出造影导管, 拔除鞘管, 局部压迫止血, 无菌敷料覆盖并弹力绷带加压包扎。患者未诉不适。	
手术者签名	
Operation name: Coronary angiography	
Method of anesthesia: (method of anesthesia) local anesthesia	
Operator:	Isuke: Second assist: Anesthesiologist: Nurse
After surgery:	
Position: (supine position)	Skin disinfection: (Eriodide)
Incision site, direction, length: the size of a grain of rice 2cm above the transverse stripe on the right wrist.	
Intraoperative change of surgical method: (No)	Reason: One
Sign informed consent form: (Yes)	
Name of drainage material: - -	Number: - - Place: - -
Specimen name: -	
Intraoperative medication (except narcotic drugs): Heparin sodium 2000u iv Blood transfusion: One	
The right radial artery was punctured by Seldinger method and inserted into 6F sheath. The patient was supine, disinfected with routine towel and local anesthesia "1% lidocaine". After the infusion of 2000u heparin sodium, a common angiographic catheter for the left and right coronas was sent into the Termao sheath and smoothly entered the left coronary opening, and "ioxanol" was injected, which showed that all branches of the left coronary artery proceeded naturally and the blood flow was smooth, and the myocardial bridge in the middle part of the anterior descending branch did not show obvious stenosis. Then the shared angiography catheter was sent to the right coronary opening and injected with "ioxanol", which showed that the right coronary artery was out of shape naturally, the blood flow was smooth, and no obvious stenosis was observed. The angiography catheter was withdrawn, the sheath tube was removed, local pressure was applied to stop bleeding, sterile dressing was covered and elastic bandage was applied to cover the wound. The patient did not complain of discomfort.	
Signature of the operative	

Figure S2. Coronary angiography results

手术日期: 2017-04-18 开始时间: 11:00 结束时间: 11:30 全程时间: 00 时30分	Date of operation: 2017-04-18 Start time: 11:00 End time: 11:30 Full time: 00:30
术前诊断: 1. 心肺复苏后综合征 2. 冠状动脉粥样硬化性心脏病? 3. 肺部感染 4. 唇腭裂 5. 肝功能不全 6. 低钾血症	Preoperative diagnosis: 1. Post-cpr syndrome 2. Coronary atherosclerotic heart disease? 3. Pulmonary infection 4. Cleft lip and palate 5. Hepatic insufficiency 6. Hypokalemia
术后诊断: 心律失常未诱发	Postoperative diagnosis: Arrhythmia not induced
手术名称: 腔内电生理检查	Name of operation: Intracavitary electrophysiological examination
麻醉方式: 局麻	Method of anesthesia: local anesthesia
手术者: 一助: 二助: 麻醉医师: - 护士:	Operator: Isuke: Second assist: Anesthesiologist: - Nurse:
手术经过:	Procedure:
体位: 仰卧位 皮肤消毒: 安尔碘	Position: Supine position Skin disinfection: Aliodine
切口部位、方向、长度: 右腹股沟韧带下方2cm 长度 3mm	Incision site, direction, length: 2cm below the right inguinal ligament and 3mm in length
术中改变手术方式: 否 理由: —	Intraoperative changes Surgical method: No Reason: —
签署知情同意书: 是	Signing informed consent form: Yes
引流材料名称: - 数目: - 放置部位: -	Name of drainage material: - Number: - Place of placement: -
送验标本名称: -	Specimen Name: -
术中用药(麻醉药品除外): 肝素2000iu 输血: —	Intraoperative medication (except narcotic drugs): heparin 2000iu —
患者平卧在台, 常规消毒铺巾, 1%利多卡因局部麻醉, 穿刺右侧股静脉(两点), 分别放置右房和冠状窦电极, AH间期88ms、HV间期76ms。测量窦房结恢复时间, 右心房S1S1刺激, S1S1刺激500ms、450ms、400ms、350ms时, 窦房结恢复时间分别为1344ms、1244ms、842ms、744ms。其中400ms时出现AV 2:1下传。将右心房电极送至右心室, 行右心室程序电刺激, S1S1从600ms起, 10ms步长负扫, 300ms时出现VA文氏传导; 280ms时出现VA分离; 再行右心室程序电刺激, 先行S1S2刺激, 从450/400ms起, 10ms步长负扫, 450/210ms为心室不应期; 再行S1S2S3刺激, 从450/330/300ms起, 10ms步长负扫, 450/330/210ms为心室不应期。静脉滴注异丙肾上腺素将心率升至100次/分, 再行心室程序电刺激, S1S2刺激、S1S2S3刺激, 未能诱出心律失常, 拔除鞘管, 安返病房。	Blood transfusion: The patient was lying flat on the table, with routine disinfection and tissue, local anesthesia with 1% lidocaine, puncture of the right femoral vein (two points), and placement of electrodes in the right atrial and coronary sinus, respectively. The AH interval was 88ms and the HV interval was 76ms. The recovery time of the SA node was measured. When the right atrium was stimulated by S1S1, the recovery time of the SA node was 1344ms, 1244ms, 842ms and 744ms when the S1S1 was stimulated by 500ms, 450ms, 400ms and 350ms, respectively. AV 2:1 downpass was observed at 400ms. The right atrial electrode was sent to the right ventricle, and the right ventricular routine electrical stimulation was performed. S1S1 was started from 600ms, and the step length of 10ms was negative scan. VA conduction appeared at 300ms. VA separation was observed at 280ms; Then the right atrial program electrical stimulation, S1S2 stimulation first, starting from 450/400ms, 10ms step length negative scan, 450/210ms for ventricular refractory period; And then S1S2S3 stimulation, starting from 450/330/300ms, 10ms step length negative scan, 450/330/210ms for ventricular refractory period. Intravenous infusion of isoproterenol increased the heart rate to 100 beats/min, and then electrical stimulation of ventricular procedures, S1S2 stimulation and S1S2S3 stimulation failed to induce arrhythmia, and the sheath was removed and returned to the ward.
手术者签名: 主任医师: / 副主任医师	Signature of operator: Chief Physician: Deputy chief physician

Figure S3. Intracardiac electrophysiologic study

(B) Assessments of the patient's psychological state

广泛性焦虑量表(GAD-7)

您的姓名: _____ 性别: 男 出生年月: _____ 职业: _____ 文化程度: _____

在过去的两周内, 有多少时候您收到以下任何问题困扰? 请阅读每一条, 然后在右侧适当的表格里打勾。

题目	A.完全不会	B.好几天	C.超过一周	D.几乎每天
1、感到紧张、焦虑或急切。				✓
2、不能够停止或控制担忧				✓
3、对各种各样的事情担忧过多	✓			
4、很难放松下来				✓
5、由于不安而无法静坐				✓
6、变得容易烦恼或急躁				✓
7、感到似乎将有可怕的事情发生而害怕				✓

Generalized Anxiety Disorder-7

Patient Name _____ Date of visit 2022.12.15

Over the past 2 weeks, how often have you been Not Several More Nearly
bothered by all of the following problems? at all days than every
half the day
days

1. Feeling nervous, anxious or on edge				✓
2. Not being able to stop or control worrying				✓
3. Worrying too much about different things				✓
4. Trouble relaxing	✓			
5. Being so restless that it's hard to sit still				✓
6. Becoming easily annoyed or irritable				✓
7. Feeling afraid as if something awful might happen				✓

Column Totals: 0 + 0 + 18

Figure S4. Generalized anxiety disorder-7 questionnaire completed by the patient

病人健康问卷(PHQ-9)
 您的姓名: _____ 性别: 男 出生年月: _____ 职业: _____ 文化程度: _____

The Patient Health Questionnaire-9

Patient Name _____ Date of visit 2022.12.15

在过去的两周里, 你是否经常收到以下问题的困扰?

Over the past 2 weeks, how often have you been bothered by all of the following problems? Not at all Several days More than half the day Nearly every day

题目	A.完全不会	B.好几天	C.一半以上的天数	D.几乎每天
1.做事时提不起劲或没有兴趣。	✓			
2.感到心情低落、沮丧或绝望。				✓
3.入睡困难、睡不安稳或睡眠过多。				✓
4.感觉疲倦或没有活力。	✓			
5.食欲不振或吃太多。	✓			
6.觉得自己很糟或觉得自己很失败, 或让自己或家人失望。			✓	
7.对事物专注有困难, 例如阅读报纸或看电视时。	✓	✓		
8.动作或说话速度缓慢到别人已经察觉? 或正好相反, 烦躁或坐立不安、动来动去的情况更胜于平常。	✓			
9.有不如死掉或用某种方式伤害自己的念头。		✓		

1. Little interest or pleasure in doing things	✓			
2. Feeling down, depressed or hopeless				✓
3. Trouble failing asleep, staying asleep, or sleeping to much				✓
4. Feeling tired or having little energy	✓			
5. Poor appetite or overeating	✓			
6. Feeling bad about yourself - or that you're a failure or have let yourself or your family down			✓	
7. Trouble concentrating on things, such as reading the newspaper or watching television		✓		
8. Moving or speaking so slowly that other people could have noticed. Or, the opposite- being so fidgety or restless that you have been moving around a lot more than usual	✓			
9. Thoughts that you would be better off dead or of hurting yourself in some way		✓		

Column Totals: 2 + 2 + 6

Figure S5. Patient health questionnaire-9 completed by the patient

躯体化症状自评量表 (SSS)

您的姓名: _____ 性别: 男 出生年月: _____ 职业: _____ 文化程度: _____

您发病过程中可能出现以下症状, 如果能让医生确切了解您的这些疾病症状, 就能给您更多的帮助, 对您的治疗有积极影响。请您阅读以下各栏后, 根据发病过程中的实际情况选择对应的数值。

- 没有: 发病或不舒服时, 没有出现该症状;
- 轻度: 发病或不舒服时, 有该症状但不影响日常生活;
- 中度: 发病或不舒服时, 有该症状且希望减轻或治愈;
- 重度: 发病或不舒服时, 有该症状且严重影响日常生活。

发病时存在的症状	没有 (0分)	轻度 (1分)	中度 (2分)	重度 (3分)
1. 头晕/头痛		✓		
2. 睡眠障碍 (入睡困难、多梦、易惊醒、早醒)				✓
3. 易疲劳乏力	✓			
4. 情绪不佳、兴趣减退	✓			
5. 心血管症状 (心慌、胸闷、胸痛、气短)				✓
6. 易紧张不安或担忧害怕			✓	
7. 易产生消极想法、多思多虑			✓	
8. 记忆力减退、注意力下降	✓			
9. 胃肠道症状 (腹胀、腹痛、食欲下降、便秘、腹泻、口感、恶心)		✓		
10. 肌肉酸痛 (颈部、肩部、腰部、背部)	✓			
11. 易伤心哭泣			✓	
12. 手脚或身体某部位发麻、刺痛、抽搐	✓			
13. 视物模糊	✓			
14. 易激动烦躁、对声音过敏				✓
15. 强迫感 (强迫思维、强迫行为)		✓		
16. 肢体易出汗颤抖或忽冷忽热	✓			
17. 经常会担心自己生病		✓		
18. 呼吸困难、喜大叹气			✓	
19. 咽部不适、喉咙有阻塞感	✓			
20. 易尿频、尿急				✓

总分: 44 分

Somatic Self-rating Scale

Patient Name _____ Date of visit 2022.12.15

You may have the following symptoms in the course of the disease, if you can let the doctor know exactly your symptoms of these diseases, can give you more help, have a positive impact on your treatment. Please read the following columns and choose the corresponding value according to the actual situation in the course of the disease.

- None: when sick or uncomfortable, the symptom does not appear;
- Mild: when you are sick or uncomfortable, you have this symptom but it does not affect your daily life;
- Moderate: when you are sick or uncomfortable, you have this symptom and want to alleviate or cure it;
- Severe: When sick or uncomfortable, this symptom has a serious impact on daily life.

Symptoms present at the time of onset None Mild Moderate Severe

Symptoms present at the time of onset	None	Mild	Moderate	Severe
Dizziness, headache		✓		
Sleep disorders (difficulty falling asleep, multiple dreams, easy awakening, early awakening)				✓
Fatigue easily	✓			
Poor mood and decreased interest	✓			
Cardiovascular symptoms (palpitation, chest tightness, chest pain, shortness of breath)				✓
Easily nervous or anxious			✓	
Prone to negative thoughts, excessive thinking			✓	
Memory loss, attention loss	✓			
Gastrointestinal symptoms (bloating, abdominal pain, loss of appetite, constipation, diarrhea, taste, nausea)		✓		
Sore muscles (neck, shoulders, waist, back)	✓			
Easy to cry			✓	
Tingling, tingling and twitching in the hands, feet or parts of the body	✓			
Blurred vision	✓			
Irritable, sensitive to sound				✓
Compulsions		✓		
Limbs easily sweat and tremble or hot and cold	✓			
Worry about getting sick frequently		✓		
Difficulty breathing, great sigh of joy			✓	
Pharynx discomfort, throat obstruction	✓			
Easy to urinate frequently and urgently				✓

Column Totals: 8 + 8 + 12 + 16

Figure S6. Somatic self-rating scale questionnaire completed by the patient