

无症状房颤患者应如何管理？

第三军医大学西南医院

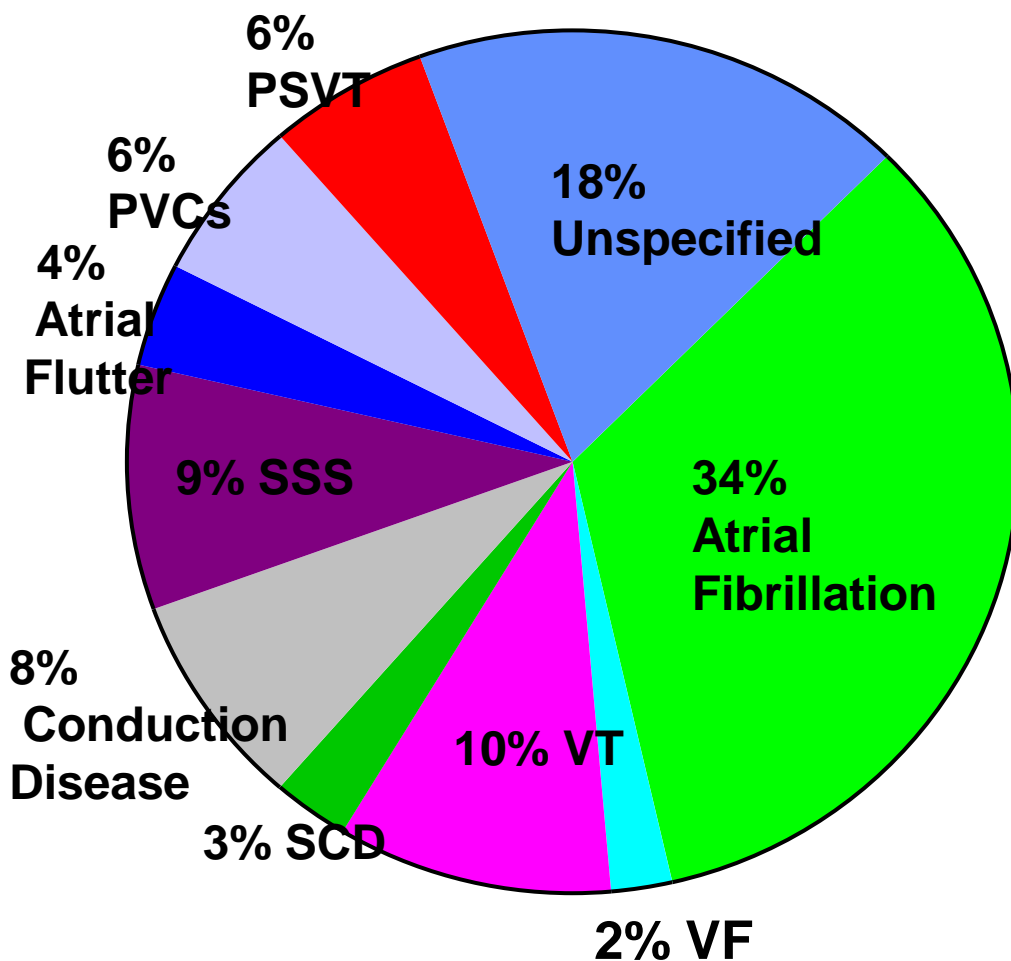
宋治远

asymptomatic atrial fibrillation

- 无症状房颤的概念
- 无症状房颤的发生率
- 无症状房颤的危害
- 如何发现无症状性房颤
- 无症状性房颤的管理策略

心房颤动是最常见的心律失常

占确诊心律失常事件的1/3



心房颤动的发病率

患病率：我国 0.77%（2004年）

美国 0.4~1%，230万人，人均花费3600\$/年

欧洲 450万人，总耗费 157亿\$/年

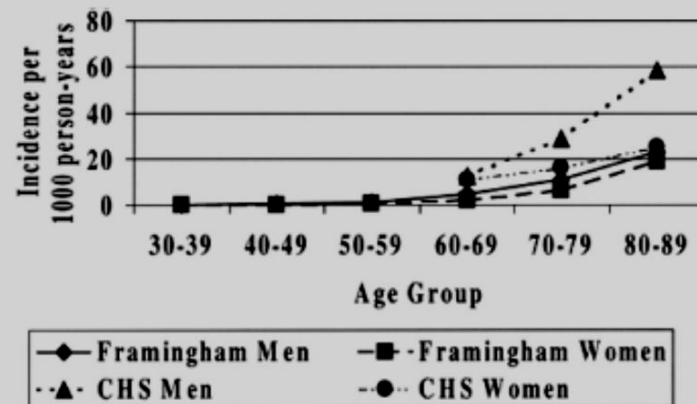


Figure 5. Incidence of atrial fibrillation in 2 American epidemiological studies. Framingham indicates the Framingham Heart Study. Data are from Wolf PA, Abbott RD, Kannel WB. Atrial fibrillation: a major contributor to stroke in the elderly. The Fra-

随年龄增长，发病率明显增加，超过80岁，AF发病率>20%/年
(Framinham、CHS研究)

atrial fibrillation in elderly subjects (the Cardiovascular Health Study). *Am J Cardiol* 1994;74:236-41,²² and Farrell B, Godwin J, Richards S, et al. The United Kingdom transient ischaemic attack (UK-TIA) aspirin trial: final results. *J Neurol Neurosurg Psychiatry* 1991;54:1044-54.⁴⁶

房颤症状缺乏特异性

- 非特异症状：心悸、胸闷、胸痛、头晕等
- 房颤发作与非特异性症状相关性较差，个体间症状的变异较大
- 房颤发作时也可无任何症状
 - 可能与房颤持续时间较短和心室率反应性下降有关

asymptomatic atrial fibrillation

- 房颤患者症状多变且无特异性，难以根据症状确定有无房颤发作，必须依赖心电学检测证实
- 无症状性心房颤动：是指无症状但通过心电检测方法证实其存在的房颤

无症状性房颤 = 沉默性房颤

2010 ESC房颤指南将房颤分为5类：

- 首发房颤(首次发现房颤)
- 阵发性房颤(持续时间<48 h, 可以自行终止)
- 持续性房颤(持续时间>7 d)
- 持久性房颤(持续时间>1年)
- 慢性房颤(患者已处于适应状态)

因脑血栓或其他原因住院而发现房颤，患者无明显症状的房颤定义为**沉默性房颤**

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无症状性房颤发生率

- 准确发生率不清

- 主要是因为无症状性房颤的检出率受到患者的房颤负荷、检测设备和检测时间的影响

- 文献报告无症状性房颤发生率为**4.0-70.0%**

- **1980年Camm**等对**106例75岁以上**健康人进行常规心电图和**24h Holter**检查，发现无症状性房颤的发生率为**10.5%**

Am Heart J, 1980, 99:598-603

无症状性房颤发生率

Framingham心脏研究

- 研究对象：
 - 无房颤史“健康人群” 4731例（男2090例、女2641例）
 - 年龄55-94岁
- 每年查2次心电图，随访38年
- 结果：
 - 发现房颤562例（男264例、女298例），检出率11.9%
 - 40.0%患者为无症状性房颤发作

Asymptomatic versus symptomatic persistent atrial fibrillation: clinical and noninvasive characteristics

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Abstract. Frykman V, Frick M, Jensen-Urstad M, Östergren J, Rosenqvist M (South Hospital and Karolinska Hospital, Karolinska Institute, Stockholm, Sweden). Asymptomatic versus symptomatic persistent atrial fibrillation: clinical and noninvasive characteristics. *J Intern Med* 2001; 250: 390–397.

Objective. This prospective study was designed to investigate the differences between asymptomatic versus symptomatic arrhythmia as well as left ventricular dysfunction in a consecutive population of patients with persistent atrial fibrillation.

Design. A total of 282 consecutive outpatients referred with persistent atrial fibrillation formed

Results. The mean age of the patients was 69 years and the mean duration of atrial fibrillation was 7 months. The prevalence of symptomatic patients was 68%, while 32% had no symptoms from atrial fibrillation, left ventricular dysfunction was observed in 20%. Asymptomatic subjects had more often lone atrial fibrillation than those with symptoms. Valvular heart disease was an independent predictor of symptoms while male gender, ischaemic heart disease and a high heart rate were independent predictors of impaired left ventricular function.

Conclusion. Valvular heart disease is related to symptoms in persistent atrial fibrillation. Ischaemic

- Frykman等对282例持续性房颤患者进行24hHolter检测
 - 有症状性房颤 68%
 - 无症状性房颤发作32%

Introduction

Atrial fibrillation is the most common arrhythmia of clinical importance. It is associated with an increased long-term morbidity that includes congestive heart failure and stroke as well as increased mortality [1–3]. Many, although not all patients are symptomatic with palpitations, dyspnoea and decreased exercise capacity as the most important complaints. Symptoms associated with atrial fibrillation may relate to a loss of normal atrioventricular synchronization and loss of effective atrial contractions reducing cardiac output by 15–25%

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[4, 5]. Moreover, irregular R-R intervals cause decreased cardiac output, increased pulmonary wedge pressure and increased right atrial pressure [6–9]. Uncontrolled ventricular rate may cause reversible left ventricular systolic dysfunction or even a tachycardia-induced cardiomyopathy [10–12]. Factors such as concomitant heart disease, pharmacological treatment and not the least, individual patient perceptions may also influence the presence and character of symptoms. The true prevalence of symptoms and to what extent asymptomatic patients differ from patients with symptoms is unclear.

复律后房颤
预防试验
(PAFAC)



Clinical research

Prevention of atrial fibrillation after cardioversion: results of the PAFAC trial

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Thomas Meinertz^f, Michael Oeff^g, Ludger Seipel^h, Hans J. Trappeⁱ,
Norbert Treese^j, Günter Breithardt^{a,*}, for The Prevention of Atrial Fibrillation
after Cardioversion Investigators

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- 1182例持续性房颤患者、848复律成功
- 383例服用索他洛儿、377例奎尼丁、88例安慰剂
- 平均随访266天（每天1次远程心电检测）
- 348例（41%）房颤复发
- 其中70.0%为无症状性房颤发作

(300 patients), quinidine plus verapamil (300 patients) or placebo (50 patients). The primary outcome parameter was AF recurrence or death. All patients received an event recorder (Tele-ECG) and had to record and transmit via telephone at least one ECG per day during follow-up.

The mean follow-up period was 266 days. A total of 191,103 Tele-ECGs were recorded and transmitted. The primary outcome parameter (AF recurrence of any kind or death) was observed in 572 patients (67%) in whom at least one episode of AF recurrence was documented during follow-up, in 348 patients (41%) AF recurrence was persistent. The recurrence rates after one year for any AF were 83% for placebo, 67% for sotalol and 65% for quinidine plus verapamil, the latter being statistically superior to placebo but not different from sotalol. The recurrence rates for the secondary outcome parameter persistent AF were 77%, 49% and 38%, respectively. Quinidine plus verapamil was significantly superior to placebo and to sotalol. About 93% of all AF recurrences were initially detected in the daily Tele-ECG, about 70% of all AF recurrences occurred completely asymptomatic. Adverse events on sotalol and quinidine plus verapamil were comparable with the exception that all torsade de pointes tachycardias occurred on sotalol.

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房颤与症状的相关性较差！

as Documented by an Implantable Monitoring Device
Implications for Optimal Patient Care

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Stefan H. Hohnloser, MD, FACC, FESC
Frankfurt, Germany

OBJECTIVES	The present study determined the incidence and time course of atrial fibrillation (AF) recurrences in patients with a history of AF and fitted with an implantable monitoring device.
BACKGROUND	The long-term risk of undetected recurrence of AF in patients receiving stable antiarrhythmic therapy remains uncertain.
METHODS	In 110 patients with a class I indication for physiologic pacing and a history of AF, a pacemaker with dedicated functions for AF detection and electrogram storage was implanted, and antiarrhythmic drug treatment was optimized. Patients were regularly followed up with evaluation of AF-related symptoms, a resting electrocardiogram (ECG), and interrogation of device memory. The incidence of AF recurrences lasting >48 h in asymptomatic patients presenting in sinus rhythm (SR) at the respective follow-up visit constituted the primary end point of this prospective study.
RESULTS	During 19 ± 11 months, 678 follow-up visits were performed. Atrial fibrillation was documented in 51 patients (46%) by ECG recording and in 97 patients (88%) by a review of stored electrograms ($p < 0.0001$). Device interrogation revealed AF recurrences lasting >48 h in 50 patients, 19 of whom (38%) were completely asymptomatic and in SR at subsequent

- Israel等对110例有房颤史者行植入性Holter检测
- 随访 19 ± 11 个月
- 结果：
 - 38.0%患者在房颤发作时无症状
 - 而报告的症状发作中40.0%为窦性心律

plications, as recently emphasized in two large prospective trials on rate versus rhythm control in AF (11,12). The incidence of complications was higher in patients in whom sinus rhythm (SR) appeared to be restored and maintained compared with those who were subjected only to rate control. This finding may be related to episodes of undetected asymptomatic AF, which may keep patients at continued risk for stroke. The prevalence of asymptomatic

observation period in patients fitted with a new implantable pacemaker with sophisticated arrhythmia documentation capabilities.

METHODS

Patient population. Patients were eligible for the study if they had a documented history of paroxysmal or persistent AF (at least 2 episodes in the previous 3 months), were available for long-term follow-up, and had a class I indication for physiologic pacing (sick sinus syndrome or atrioventricular [AV] block). Patients with permanent AF were excluded from the study. All patients gave written informed consent. The study was approved by the local ethics committee.

From the J. W. Goethe University Hospital, Department of Medicine, Division of Cardiology, Frankfurt, Germany. Dr. Israel is a member of the Speaker's Board of Medtronic, Inc.; Dr. Hohnloser is a member of the Advisory Board of Medtronic, Inc.

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发生脑梗塞风险更高

- 无症状性房颤与症状性房颤比较，具有同等或更高的脑卒中风险
 - 如何确定患者是否发生房颤或由房颤“真正”恢复窦性心律？非常困难！
 - 由于无症状，这些患者不能得到及时的抗栓治疗，或错误的认为恢复窦性心律而终止抗栓治疗
 - 无症状房颤患者具有更高的脑梗塞风险，识别这些患者尤其重要！

发生脑梗塞风险更高

- **Ciaroni**等对门诊心电图筛查出的无症状性房颤患者平均随访**4.6**年，发现**26%**患者发生脑血管疾病。(Arch Mal Coeur Vaiss. 1993; 86(7):1025-30)
- **AFFIRM**（房颤心率控制）研究：
 - 窦性心律维持组发生脑卒中患者中**57%**与恢复窦性心律而停止抗栓治疗有关
 - 该研究基线水平为无症状性房颤患者（**12%**）在随访**3.5**年内的死亡率与症状性房颤患者一样

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如何提高检出率？

- 房颤发作随机，持续时间不稳定，心电检测时间窗势必影响真实房颤发生率
- 不同研究中使用的检测方法、检测时间窗和检测对象不同是造成无症状性房颤发生率不同的主要原因
- 如何提高无症状性房颤检出率？
 - 采用密集的检测频率
 - 联合多种检测措施

常用心电检测方法

- 常规心电图
- **24h Holter**
- 远程心电图
- 心电事件记录仪（**EER**）
- 起搏器腔内心电图
- 院内和家庭心电检测系统
- 植入性**Holter**记录仪

(1) 常规心电图检测

- 是最基本的检测方法，操作简便，但检出率较低
- **Psaty**等对**5210**例**65**岁以上患者随访**3.28**年（**1**次/年心电图检测）发现无症状性房颤发生率为**11.8%**
- **Ciaroni**等对**46**例特发性房颤患者随访**4.6**年（常规心电图检测）发现无症状性房颤发生率为**24%**
(检出率高的原因：例数少、有房颤史)

([Arch Mal Coeur Vaiss.](#) 1993; 86(7):1025-30)

(2) Holter 检测: 简便、有效

Characterization of Different Subsets of Atrial Fibrillation in General Practice in France

The ALFA Study

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Alain Sebaoun, MD, on behalf of the College of French Cardiologists

法国
ALFA研究

Background—The clinical presentation and causes of atrial fibrillation (AF) in the 1990s may differ from AF seen 2 to 3 decades ago. It was the objective of this prospective study to characterize various clinical presentations and underlying conditions of patients with AF observed in general practice in France.

Methods and Results—The study population comprised 756 patients (19 to 95 years of age) with electrocardiographically documented AF subdivided into paroxysmal (<7 days), chronic (last episode >1 month) and recent onset AF (persistent >7 days and <1 month). Symptoms were present in 670 patients (88.6%). The relative prevalences of paroxysmal, chronic, and recent onset AF were 22.1%, 51.4%, and 26.4%, respectively. Cardiac disorders, present in 534 patients (70.6%), included hypertension (39.4%), coronary artery disease (16.6%), and myocardial diseases (15.3%) as the most common. Rheumatic valvular disease represented a common cause in women (25.0%) but not in men (8.0%). The paroxysmal group differed by a high percentage of palpitations (79.0%) and a low percentage of underlying heart disease (53.9%). With a mean follow-up of 8.6±3.7 months, 28 patients (3.7%) died, including 6 fatal cerebrovascular accidents. Among the 728 patients who survived, congestive heart failure occurred in 30 patients (4.1%), and embolic complications occurred in 13 patients (1.8%). In the paroxysmal AF group, 13 patients (8.0%) developed chronic AF and 51 (31.3%) had AF recurrences. At the time of follow-up, 53 patients (14.3%) from the chronic AF group and 108 patients (55.7%) from the recent onset AF group were in sinus rhythm.

Conclusions—This large-scale study establishes the current demographic profile of out-of-hospital patients with AF and highlights some of the changes that have occurred in the past decades, including a particular shift in cardiac causes toward nonrheumatic AF. This study also demonstrates significant differences between various subsets of AF. (*Circulation*. 1999;99:3028-3035.)

Key Words: fibrillation ■ embolism ■ atrial ■ antiarrhythmia agents

There has been, in recent years, an increased awareness of the morbidity and mortality associated with atrial fibrillation (AF).¹⁻⁴ Symptoms of AF, embolic complications, and left ventricular dysfunction are responsible for frequent physician visits and hospitalizations at a high cost.⁵ Few studies have attempted to characterize the various clinical presentations and causes of AF.^{6,7} Data on the causes of AF, derived from studies published 2 to 3 decades ago,⁸⁻¹⁵ may not be applicable to the AF population seen in the 1990s (particularly regarding the prevalence and type of underlying heart diseases).

The purpose of this prospective study was to characterize causes of different subsets of AF observed in general practice in France and to evaluate the outcome of these patients after 6 to 12 months of follow-up.

Methods

Patient Population

This prospective study, entitled ALFA (Etude on Activité Libérale de la Fibrillation Auriculaire), was undertaken under the auspices of the

College of French Cardiologists and involved 206 cardiologists established in general office practice and distributed in all regions of France. This survey involved only general cardiologists in office practice, representative of the vast majority of cardiologists in France. Each cardiologist agreed to enroll, to report on, and to follow 6 consecutive patients with documented AF.

Definitions

Electrocardiographic diagnosis of AF was made according to Beller's definition.¹⁶ AF was subdivided into 3 types: paroxysmal, chronic, or recent onset. Paroxysmal AF was diagnosed in a patient with a history of recurrent episodes of AF lasting >2 minutes and <7 days. Patients with a first episode of AF lasting <7 days or cardioverted within 7 days were also classified in this group. Chronic AF was defined as AF present for >1 month. Recent onset AF was defined as persistent (nonself-terminating) AF lasting ≥7 days and <1 month. A first symptomatic attack of AF lasting ≥7 days and <1 month, an asymptomatic or mildly symptomatic AF of recent discovery, or an AF episode for which the onset could not be determined were classified in this group. Should the physician opt for cardioversion (either pharmacological or electrical) of AF lasting >7 days before 1 month, the patient was classified in the recent onset AF group.

- 756例心内科门诊患者
- 随访6-12个月 (24h Holter)
- 670例有症状(88.6%)
- 86例(11.4%)为无症状性房颤发作

(*Circulation*. 1999;99:3028-3035.)

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Symptomatic and Asymptomatic Atrial Fibrillation after Pulmonary Vein Ablation and the Impact on Quality of Life

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Background: The aim of this prospective study was to evaluate the recurrences of atrial fibrillation (AF) and flutter (AFL) after circumferential pulmonary vein ablation (CPVA) using repetitive long-term Holter recordings, and to evaluate the change in quality of life (QoL), especially in patients with asymptomatic AF recurrences.

Methods: A total of 149 patients with AF were followed up with 7-day Holter monitoring at 3, 6, and 12 months after CPVA. We calculated the burden of AF/AFL defined as the percentage of time in

- Pontoppidan等对149例房颤患者射频消融术后随访1年
- 每3个月进行一次连续7天Holter检测
- 结果:
 - 44%患者存在无症状性房颤发作
 - 而持续性房颤患者无症状性房颤发作达63%

Conclusion: The aim of treatment is to improve the quality of life (QoL) by reducing the symptoms and the risk of thromboembolism. Medical treatment strategies include either rate control

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lative with variable success rates depending on the AF classification and the defined endpoints of outcome.⁸ Several studies show that successful left atrial ablation significantly improves the QoL in patients with AF.⁷⁻⁹ However, the follow-up (FU) in these studies was either relatively short or without objective measures of rhythm outcome. Self-reported symptoms do not always correspond to AF recurrences,¹⁰ and recent studies indicate that symptom-based FU should be replaced by repetitive long-term Holter recordings or event recorders to detect AF recurrences more reliably.¹¹⁻¹³ Asymptomatic AF after ablation has been reported in several studies, but the impact on the QoL of patients is unclear. The aim of this prospective study was to (1) evaluate the AF recurrences after left atrial ablation using repetitive long-term Holter recordings and (2) evaluate the

(3) 心电事件记录仪(EER)

- 能随时记录心电信息，增加了心电检测时间窗，对无症状性房颤的检出率**优于常规Holter**检测
- **Reiffe**等随机选取**1800**例**怀疑**心律失常患者行**24h Holter**、循环记录仪和自动触发式心电记录仪检测，结果发现无症状性房颤检出率由**0.2%**增加到**8.7%**

Frequent and Prolonged Asymptomatic Episodes of Paroxysmal Atrial Fibrillation Revealed by Automatic Long-Term Event Recorders in Patients with a Negative 24-Hour Holter

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- Roche等对65例心悸而24h Holter检测结果为阴性的患者进行连续7d的EER监测发现
- 31%患者有阵发性房颤发作
- 其中55%为无症状性房颤发作

these 20 patients were asymptomatic and would have remained undiagnosed without the automatic mode of the event recorder. Asymptomatic PAF episodes were longer than symptomatic ones (10 hours 30 minutes \pm 6 hours 30 minutes vs 4 hours 50 minutes \pm 4 hours, $P < 0.05$). In addition, episodes of sustained paroxysmal supraventricular tachycardia (PSVT) were diagnosed in 39 (57%) patients, of whom 34 (87%) were symptomatic. In this prospective cohort, a second standard 24-hour monitoring would have missed 44% of the patients with PAF or PSVT and a classical patient-triggered event recorder 13%. In patients still complaining of palpitations after one negative 24-hour Holter, numerous, prolonged, and often asymptomatic episodes of PAF can be revealed by long-term automatic event recorders. These devices should help clarify the clinical consequences of such episodes. (PACE 2002; 25:1587–1593)

paroxysmal atrial fibrillation, arrhythmia detection, automatic cardiac event recorder

Introduction

Among cardiac arrhythmias, chronic atrial fibrillation is of particular concern because of its recognized increased risk for cerebral emboli.^{1–3} However, the responsibility of the type and duration paroxysmal atrial fibrillation (PAF) in ischemic stroke has been questioned. Answers to this major issue are limited by the lack of figures about the true frequency and duration of PAF

episodes and, consequently, by the difficulty to establish a clear correlation between their characteristics and cerebrovascular damages.

Repeated 24-hour Holter recordings have already demonstrated a higher prevalence of PAF episodes than previously assumed; however, available data do not result from continuous prolonged recordings, but have been extrapolated from repeated recorded samples.^{6,7} Increasing recording duration has appeared as the only way to get a better knowledge of the phenomenon of PAF. The introduction of patient-triggered event recorders could have provided a proper way to this answer, since it became possible to extend monitoring duration up to 1 month, resulting in an arrhythmia detection far superior to

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(PACE 2002; 25:1587–1593)

(4) 起搏器腔内心电图

- 起搏器携带者可通过心房电极感知的心房高频事件(AHRE)发现无症状性房颤患者
- 起搏器模式选择试验(MOST)
 - 无症状性房颤发生率为17.6%
 - 无症状性房颤发作增加总死亡率

永久心脏起搏中无症状性心房颤动的发生及临床意义

滕志涛¹ 赵培勇¹ 钱焕德¹ 吴荣² 李婧¹ 郑武扬² 李尚艾¹

[摘要] 目的: 研究接受 DDD 永久心脏起搏器患者中无症状性心房颤动的发生及临床意义。方法: 47 例安装 DDD 永久心脏起搏器的患者, 分别于术后 3、6 个月随访程控起搏器, 记录患者发生心房颤动的次数和持续时间, 及发生心房颤动时的症状。结果: 术后 3 个月随访时 18 例(38.3%) 出现心房颤动, 其中无症状性心房颤动 9 例, 占总心房颤动人数的 50%; 术后 6 个月随访时 19 例(40.4%) 出现心房颤动, 其中无症状性心房颤动 10 例, 占总心房颤动人数的 52.6%。结论: 永久起搏器置入后许多患者出现心房颤动, 许多心房颤动事件是无相关症状的, 通过起搏器自动模式转换功能可以发现此类患者并进行适当的临床干预。

[关键词] 心房颤动, 无症状性; 起搏器

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置入起搏器后心房颤动(房颤)的发生率以及血栓栓塞事件的发生率增加, 无论心室起搏(VVI/R)或生理性起搏(DDD/R 或 AAI/R)后由于房颤发生脑卒中或死亡的风险均增加^[1,2]。51%的

10 例, 占总房颤人数的 43.5%, 对新发房颤发作的患者进行室率控制和抗栓治疗。所有患者随访 6 个月均无心脑血管事件发生。

3 讨论

永久心脏起搏器植入患者无症状性房颤检出率高达50%以上

(5) 自动识别房颤功能的血压计

Screening for Asymptomatic Atrial Fibrillation While Monitoring the Blood Pressure at Home: Trial of Regular Versus Irregular Pulse for Prevention of Stroke (TRIPPS 2.0)

Joseph Wiesel, MD*, Saji Abraham, MD, and Frank C. Messineo, MD

Asymptomatic atrial fibrillation (AF) is a common cause of strokes. Physician screening for AF has been recommended. Home screening for AF may increase the likelihood of detecting asymptomatic AF in patients at risk for stroke because of AF. The aim of this study was to assess the feasibility and accuracy of screening for AF when taking home blood pressure (BP) measurements using an automatic AF-detecting BP monitor. Subjects aged ≥ 64 years or those with hypertension, diabetes, congestive heart failure, or previous stroke were enrolled by their primary physicians and given the AF-BP monitor and an electrocardiographic event monitor to use at home for 30 days. The AF-BP monitor reading was compared with the electrocardiographic reading to calculate the sensitivity and specificity of the device for detecting AF. A total of 160 subjects were enrolled, with 10 withdrawing, 1 excluded, and 10 with no AF-BP monitor logs or electrocardiographic recordings. Of the 139 subjects included, 14 had known AF. There was a total of 3316 days with AF-BP

TRIPPS研究

家庭血压测量计筛查无症状性房颤：脉搏规则与否用于卒中预防

- 采用带有**自动房颤识别功能的血压计**，评价该仪器在家庭血压测量时筛查房颤的可行性和准确性
- 研究对象：年龄 ≥ 65 岁，有高血压、糖尿病、心力衰竭，或卒中史者
- 基层医师负责患者入选，并将带有房颤识别功能的血压计和心电事件记录仪交患者检测**30**天，通过比较两者结果，评估带有房颤识别功能的血压计检测房颤的敏感性和特异性
- 该研究共有**160**人参加，**10**退出，**1**人被排除，**10**人无记录数据。最后入组**139**例患者，其中**14**例发生房颤，两种方法一共记录**3316**天房颤心律
- 带房颤识别功能的血压计检测房颤的敏感性为**99.2%**，特异性为**92.9%**
- 结论：在家庭测量血压的同时可以准确地监测房颤

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the AF-BP monitor device to take home, to use daily for 30 days and to chart the readings on a log. An electrocardiographic event monitor (Heartrak 2; Mednet Healthcare, Ewing, New Jersey) was also provided to the subjects to obtain 60-second electrocardiographic recordings before the AF-BP monitor readings and to transmit the electrocardiograms to the monitoring center daily. If the daily AF-BP monitor reading indicated AF, the subject was to take

asymptomatic atrial fibrillation

- 无症状房颤的概念
- 无症状房颤的发生率
- 无症状房颤的危害
- 如何发现无症状性房颤
- 无症状性房颤的管理策略

治疗策略：同症状性房颤

心率控制

药物：

钙拮抗剂
 β -blocker
地高辛

非药物：

房室结消融
+起搏

节律控制

药物：

Ia
Ic
III
 β -blocker

非药物：

导管消融
起搏
心房除颤器
外科手术

预防卒中

药物：

华法令
达比加群酯
利伐沙班
阿司匹林

非药物：

左心耳切除
左心耳封堵
左心耳缝扎

1. 尽早筛查出无症状性房颤患者

- 应用较密集的心电学检测措施
 - 有助于筛查出更多的无症状性房颤患者
- 采用多种心电学检测手段
- 加强高危人群无症状性房颤的筛查
 - 老年人（**ESC 2012**指南建议对**>65**岁者进行房颤筛查）
 - 高血压病、糖尿病、高血脂患者
 - 心肌梗死后
 - 有脑卒中史者

ADVERSE PROGNOSIS OF ASYMPTOMATIC ATRIAL FIBRILLATION DETECTED INCIDENTALLY: A CASE FOR SCREENING

Poster Contributions
Poster Sessions, Expo North
Sunday, March 10, 2013, 3:45 p.m.-4:30 p.m.

Session Title: Arrhythmias: AF/SVT VII
Abstract Category: 4. Arrhythmias: AF/SVT
Presentation Number: 1236-41

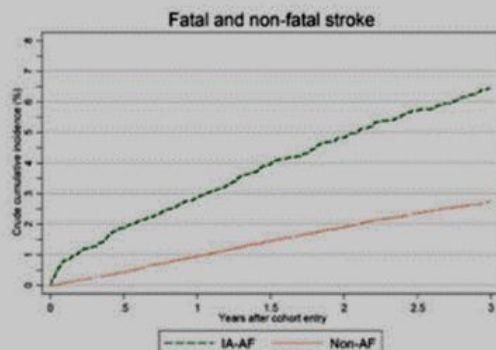
Authors: S. Ben Freedman, Anja Katholing, Carlos Martinez, Sydney Medical School University of Sydney, Concord Hospital Dept of Cardiology, Sydney, Australia, Pharmaepi, Frankfurt, Germany

Background: Stroke is not uncommonly the first clinical manifestation of atrial fibrillation (AF). Although ACC guidelines do not mention screening, ESC 2012 guidelines now recommend opportunistic screening for AF in patients ≥ 65 , but the prognosis of incidentally detected asymptomatic AF that might be detected on screening is not known.

Methods: The UK Clinical Practice Research Datalink (primary care data from general practices with linkage to hospital discharge diagnoses and causes of death) was interrogated to generate a cohort of patients with incident asymptomatic AF (IA-AF) detected in general practice. An age, gender and index day (day of IA-AF diagnosis) matched cohort of patients without AF was selected at random in a ratio of 5:1. Both cohorts were followed for 3 years.

Results: We identified 9,714 patients with IA-AF and 44,024 matched non-AF controls, mean age 70.5 \pm 10, 57% male. Mean CHA2DS2-VASc scores were 2.5 and 2.2 resp ($p < 0.001$). Stroke risk was significantly higher in the IA-AF cohort (Figure). Incidence rate per 100 patient years (IR) (95% CI) for IA-AF vs matched controls, excess IR was: 1.8 (1.65-2.0) vs 0.7 (0.66 - 0.76), excess 1.1 (0.9 - 1.3) for stroke; 0.75 (0.65 - 0.88) vs 0.51 (0.47 - 0.56), excess 0.24 (0.12-0.36) for MI; and 3.9 (3.6 - 4.1) vs 1.95 (1.87 - 2.03), excess 1.9 (1.6 - 2.2) for mortality.

Conclusion: Incidentally detected asymptomatic AF is not benign, with high excess rates of stroke, MI and death in the first 3 years after diagnosis, justifying a recommendation to screen.



无症状性心房颤动预后 分析：病例筛查

- 方法：通过对英国临床实践研究数据库进行查询，建立了一个意外发现无症状性房颤患者队列。根据该队列患者年龄、性别、确诊日期（无症状性房颤），随机与无房颤的患者按照1:5的比例进行为期三年的配对研究
- 结果：入选9714例无症状性房颤患者，及44024例配对的非房颤患者，平均年龄70.5 \pm 10，男性57%
- 无症状性房颤组的卒中风险明显高于对照组。心肌梗死、死亡风险也较对照组明显增加
- 结论：意外发现的无症状性房颤并非良性的，其三年脑卒中、心肌梗死、死亡的风险增加，**表明筛查房颤非常必要**

2. 药物治疗：效果有限

The incidence of asymptomatic paroxysmal atrial fibrillation in patients treated with propranolol or propafenone

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Abstract

Anti-arrhythmic therapy for paroxysmal atrial fibrillation leads to complete symptomatic relief in a number of patients. The elimination of symptoms may be associated either with a complete elimination of arrhythmia or with a conversion of symptomatic atrial fibrillation into asymptomatic episodes of arrhythmia. The aim of the study was to evaluate the

- Wolk等对52例阵发性房颤患者，用24h Holter检测发现
- 普罗帕酮能使74%房颤患者完全无症状，但其中仍有27%的患者出现无症状性房颤发作

Keywords: Paroxysmal atrial fibrillation; Ambulatory ECG monitoring

1. Introduction

Anti-arrhythmic drug therapy in patients with paroxysmal atrial fibrillation leads to complete symptomatic relief in a number of patients. The elimina-

tion of symptoms may be associated, either with a complete elimination of the arrhythmia, or with a conversion of symptomatic paroxysmal atrial fibrillation into asymptomatic episodes of arrhythmia. In the latter situation the risk of embolic episodes may still exist. However, the true incidence of drug-induced conversion of symptomatic atrial fibrillation into asymptomatic episodes has not been established.

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Azimilide 对无症状性 房颤的疗效

Asymptomatic or “Silent” Atrial Fibrillation Frequency in Untreated Patients and Patients Receiving Azimilide

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Stephen R. Marcello, MD; William E. Wilkinson, PhD; Edward L.C. Pritchett, MD; for the Azimilide
Supraventricular Arrhythmia Program (ASAP) Investigators

Background—Asymptomatic, or “silent” atrial fibrillation could increase the risk of stroke. Little is known about the frequency of asymptomatic atrial fibrillation in patients who also have symptomatic atrial fibrillation; similarly, little is known about the effect of antiarrhythmic drug therapy on asymptomatic atrial fibrillation.

Methods and Results—Patients in sinus rhythm with a history of symptomatic atrial fibrillation or atrial flutter received placebo or azimilide (35 to 125 mg) once daily for 6 or 9 months in 4 similar double-blind trials. The end point was the first recurrence of a symptomatic ECG-documented supraventricular arrhythmia. Routine transtelephonic electrocardiograms, in the absence of symptoms, were recorded for 30 seconds every 2 weeks until patients completed follow-up or documented a symptomatic supraventricular arrhythmia. Of the 1380 patients, 489 received placebo. Among these patients receiving placebo, 303 transmitted at least one routine ECG while asymptomatic. Asymptomatic atrial fibrillation was recorded in 50 (17%) within 6 months and before recurrence of symptomatic supraventricular arrhythmia. In the 3 trials evaluating azimilide in therapeutic doses (100 and 125 mg), asymptomatic atrial fibrillation occurred in 49 of 382 (13%) receiving azimilide and 43 of 233 (18%) receiving placebo. Although drug effect on time to first asymptomatic event was not statistically significant (hazard ratio, 0.70; $P=0.09$), there was a 40% reduction in asymptomatic atrial fibrillation on azimilide compared with placebo ($P=0.03$) when repeated observations were considered.

Conclusions—Asymptomatic atrial fibrillation is common in untreated patients with a history of symptomatic atrial fibrillation (and is likely underestimated by this analysis). Azimilide may reduce the occurrence of this silent arrhythmia. (*Circulation*. 2003;107:1141-1145.)

Key Words: fibrillation ■ atrial flutter ■ antiarrhythmia agents ■ drugs

Atrial fibrillation is the most common arrhythmia that requires medical therapy and accounts for substantial morbidity and mortality, as well as for substantial health-related costs.^{1,2} Although most patients with atrial fibrillation are identified because they have symptoms,³ atrial fibrillation also may be asymptomatic^{4,5}; in fact, atrial fibrillation is sometimes first diagnosed when patients present with a stroke.^{6,7} Clinical trials of antiarrhythmic drug therapy have treated asymptomatic atrial fibrillation in different ways; some measured only symptomatic arrhythmia recurrence,^{8,9} whereas others considered both symptomatic and asymptomatic arrhythmias¹⁰ as end points and did not report them separately. Few trials have incorporated methods that capture both symptomatic and asymptomatic recurrences and dis-

criminate between them. Because of the difficulty of documenting asymptomatic atrial fibrillation events, it has been challenging to determine whether antiarrhythmic drugs decrease the frequency of asymptomatic recurrences or increase them possibly by converting symptomatic episodes into asymptomatic ones. The 4 recent clinical trials of the class III antiarrhythmic drug azimilide permit data to be combined to address the issue of how this and perhaps other antiarrhythmic drugs affect both symptomatic and asymptomatic atrial fibrillation.

The efficacy of azimilide was studied in 4 double-blind, randomized, placebo-controlled clinical trials with almost identical trial designs.¹¹⁻¹³ These trials demonstrated antiarrhythmic efficacy of azimilide for symptomatic atrial fibril-

- 是一项安慰剂对照双盲试验
- 阿奇利特组：1380例、安慰剂组489例
- 结果：与安慰剂相比，阿奇利特能减少40%无症状房颤发作

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This study was supported by grants from Procter & Gamble Pharmaceuticals. T.W. Tilsch and Drs Schnell and Marcello are employees of Procter & Gamble Pharmaceuticals, and Drs Page, Connolly, Pritchett, and Wilkinson are investigators and consultants to Procter & Gamble.

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(*Circulation*. 2003;107:1141-1145.)

3.加强房颤复律前的抗凝治疗

- 房颤持续时间超过**48h**而未接受抗凝治疗者复律后发生血栓事件的风险为**5%**
- 房颤持续时间**<48h**或接受**3周**以上抗凝治疗者复律后发生血栓事件的风险**<1%**

“方法”与症状性房颤相同

口服华法林，维持**INR 2~3**

或口服阿司匹林+氯比格雷

4.房颤治疗“成功”后继续抗凝治疗

- 因无症状性房颤的存在，往往高估治疗成功率
- “误”认为治疗成功者停用抗凝治疗使血栓栓塞风险增加
- 有建议：“一旦口服华法林即需终身口服华法林”，以降低无症状性房颤引起的栓塞风险

Clinical Benefit of Catheter Ablation for Atrial Fibrillation Comment on “Discerning the Incidence of Symptomatic and Asymptomatic Episodes of Atrial Fibrillation Before and After Catheter Ablation (DISCERN AF)”

Rita F. Redberg, MD, MSc

JAMA Intern Med. 2013;173(2):157. doi:10.1001/jamainternmed.2013.2308.

recurrences are asymptomatic, judging the success of AF ablation based on symptomatic recurrences will surely overstate the success rate of the procedure. Future clinical trials of AF therapies should consider using implantable cardiac monitors to quantify AF burden after ablation, because symptoms and periodic 48-hour Holter monitors are not sufficiently sensitive to document recurrent AF.

Moreover, the clinical risks and economic costs of AF ablation call for a careful evaluation of real-world outcomes after the procedure. The results of this study provide additional impetus to the ongoing development of AF ablation registries in Europe and the United States.^{7,8} Such registries should capture patient and provider information, procedures performed, complications, long-term medication use, and key clinical outcomes, such as recurrent AF, stroke, and cardiac events. The widespread deployment of such registries will require the active participation of all key stakeholders. Health care providers are most likely to collect longitudinal data if payers require data submission (or provide financial incentives to do so) and if patient groups or quality improvement organizations insist on registry.

Verma and colleagues⁷ make a compelling case for a careful evaluation of the risks and benefits of AF abla-

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EDITOR'S NOTE

Clinical Benefit of Catheter Ablation for Atrial Fibrillation

In a careful study of symptomatic and asymptomatic recurrences of atrial fibrillation (AF) after catheter ablation, Verma and colleagues find that fewer patients experience symptomatic AF after ablation, but most patients still experience AF, albeit of a decreased frequency and duration. Because ablation has never been studied in a randomized blinded fashion, we cannot know whether patients experience fewer symptoms after

ablation because crease following i self was beneficia Furthermore, i sists, whether AF efit on survival a dure, which has s be established.

- 对象：50例症状性房颤患者
- 方法：导管消融手术前3个月至术后18个月期间植入了心脏记录仪，并记录患者症状
- 结果：
 - 共有2355次心律失常事件被记录
 - 其中69%为房颤、房扑、或者房速
 - 导管射频消融减少房性心律失常86%（平均每天0.3-2次， $P < 0.001$ ）
 - 无症状性房颤增加
 - 导管消融术前52%
 - 导管消融术后79%
 - 导管消融使无症状性房颤与症状性房颤间的比值从1.1提高到3.7

ATRIAL FIBRILLATION

Proportion of asymptomatic AF increases after catheter ablation

Atrial fibrillation (AF) can be treated with catheter ablation. However, a report from the DISCERN AF study shows that, despite a reduction in the total number of AF events, the proportion of episodes that were asymptomatic increased after the procedure.

Data from implantable cardiac monitors were collected from 50 patients with symptomatic AF for 3 months before and 18 months after catheter ablation. Concurrently, patients recorded their symptoms in a diary. A total of 2,355 episodes of arrhythmia were recorded, 69% of which were AF, atrial flutter, or atrial tachycardia. Catheter ablation reduced the incidence of AF, atrial flutter, or atrial tachycardia by 86% (from a mean of 2.0 to 0.3 episodes per day, $P < 0.001$).

Although the presence of AF symptoms was one of the enrollment criteria, 52% of episodes before ablation and 79% of episodes after ablation were asymptomatic. Therefore, the ratio of asymptomatic to symptomatic AF increased from 1.1 to 3.7

after the procedure. Postablation state was the strongest predictor of asymptomatic AF. Six patients (12%) had exclusively asymptomatic AF after ablation. Therefore, the success rate for ablation, if defined by the absence of symptomatic AF, overestimates the actual success rate.

Changes in autonomic innervation might explain the increase in asymptomatic AF. Postablation episodes were also shorter and more likely to be atrial flutter or atrial tachycardia. Regardless, "operators should think twice before stopping chronic anticoagulation therapy in their AF patients postablation", says DISCERN AF investigator Atul Verma.

Megumi Cally

Original article Verma, A. et al. Discerning the incidence of symptomatic and asymptomatic episodes of atrial fibrillation before and after catheter ablation (DISCERN AF): a prospective, multicenter study. *Arch. Intern. Med.* doi:10.1001/archinternmed.2013.1561

导管射频消融术后无症状性房颤的比例增加

- 基于DISCERN 房颤研究结果：导管消融治疗使总的心房颤动事件减少，但无症状性心房颤动的比例增加
- DISCERN 房颤研究者指出：对于房颤患者的导管消融术后，在停用抗凝治疗问题上，**应三思而后行**

5. 控制心室率预防心动过速性心肌病

- 长期心室率 $> 120-130$ 次/分或者每天 $10\%-15\%$ 的时间处于快速心室率下的房颤患者会进展为心肌病
- 无症状性房颤患者因未能及时发现而长期暴露于快速的心室率之下，发生心动过速性心肌病的危险更高

控制心室率措施同症状性房颤

地高辛或 β -受体阻滞剂

小 结

- 无症状性房颤检出率与检测方法、检测时间及检测密集度有关
- 无症状性房颤并非“良性”，具有与症状性房颤相同或更高的栓塞风险
- 无症状性房颤的管理与症状性房颤相同,甚至更严格：节律控制、心率控制、抗凝治疗



Thanks!