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Girişimsel Kardiyologlar Arasında Atriyal Fibrilasyon Farkındalık Anketi Değerlendirmesi

A Survey Among Invasive Cardiologists to Assess Their Awareness of Atrial Fibrillation

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ÖZ

GİRİŞ ve AMAÇ: *Atriyal fibrilasyon (AF), farklı klinik durumlarda ortaya çıkabilir ve çeşitli tedavi seçeneklerine sahiptir. Bu nedenle, gerçek yaşam koşullarında klinik uygulama da heterojen olabilir. Bu araştırmanın temel amacı, invazif kardiyologların AF' ye yaklaşımını ve bu konudaki tedavi yaklaşımlarını değerlendirmektir.*

YÖNTEM ve GEREÇLER: *2017 Girişimsel kardiyoloji kongresinde, katılımcıların rastgele seçildiği ancak katılımın gönüllük esasına dayandığı bir anket çalışması yapılmış ve 134 anket sonucu değerlendirilmiştir. Anket formu, i) AF'yi tanıma ve belirli durumlarda medikal tedavi yaklaşımları, ii) AF ablasyonu yaklaşımları ve iii) stent takılan hastalarda antikoagülasyon ve antiplatelet tedavinin yönetimi konularını içermiştir.*

BULGULAR: *AF ve hafif mitral darlığı olan hastada, katılımcıların çoğu yeni oral antikoagülan kullanımını tercih ederken, katılımcıların dörtte biri vitamin K antagonisti kullanmayı tercih etmiştir. CHA2DS2-VASc skoru 0, hipertrofik kardiyomiyopatisi olan AF hastasında katılımcıların çoğu asetilsalisilik asit kullanmayı tercih etmiş, oral antikoagülan tercih oranı ise %33.58 olmuştur. Semptomatik AF hastalarında hekimlerin %73,88' i üçüncü ataktan sonra ablasyonu tercih etmiş. Akut miyokard enfarktüsü nedeniyle ilaç kaplı stent takılan hastalarda ikili antiplatelet tedavi ile beraber oral antikoagülasyon süresine bakıldığında, çoğunlukla 3 ay üçlü tedavi, 12 aya kadar ikili tedavi seçeneği tercih edilmiştir (%64.18).*

TARTIŞMA ve SONUÇ: *Mevcut araştırma, girişimsel kardiyologlar arasında atriyal fibrilasyona yaklaşım konusunda farklılıklar ve bazı durumlarda kılavuzlarla uyumsuz yaklaşımlar olduğunu göstermiştir. Bu sonuç, kılavuzların yetersiz takibinden veya bazı konularda yeterli veri ile desteklenen net bir tavsiyenin bulunmayışından kaynaklı olabilir.*

Anahtar Kelimeler: *Atriyal fibrilasyon, anket çalısması, oral antikoagülan tedavi, ablasyon*

ABSTRACT

INTRODUCTION: *Atrial fibrillation (AF) may occur in different clinical situations and has various treatment options. Therefore, clinical practice in real-life conditions may also be heterogeneous. The main aim of this survey was to evaluate the treatment approaches taken by invasive cardiologists in response to AF.*

METHODS: *At the 2017 interventional cardiology congress, a survey was conducted in which voluntary participants were randomly assigned, and 134 survey results were evaluated. The survey questionnaire covered topics of i) AF recognition and medical treatment approaches in certain situations, ii) approaches to AF ablation, and iii) the management of anticoagulation and antiplatelet therapy in patients with recent stent implantations.*

RESULTS: *Most participants preferred novel oral anticoagulation in patients with AF and mild mitral stenosis, but one-quarter of the participants preferred using VKA. For AF patients with hypertrophic cardiomyopathy whose CHA2DS2-VASc score was zero, 58.96% of participants preferred acetylsalicylic acid. Regarding their approach to ablation, 73.88% of physicians preferred ablation after third attack in symptomatic AF patients. When it came to the duration of prescribing oral anticoagulants in combination with dual antiplatelet therapy for patients with implanted drug-eluting stents due to acute myocardial infarctions, 64.18% of physicians preferred to prescribe triple therapy for three months, followed by 12 months of dual therapy.*

DISCUSSION and CONCLUSION: *The present survey showed differences in the approach to AF and, in some cases, incompatibility with the guidelines. This may be due to insufficient follow-up of the guidelines, or it may be due to a lack of clear recommendations supported by sufficient data on some subjects.*

Keywords: *Atrial fibrillation, survey study, oral anticoagulant therapy, ablation*

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INTRODUCTION

Atrial fibrillation (AF) is the most common type of sustained arrhythmia, and its prevalence in worldwide is approximately 3% in adults aged 20 years or older (1, 2). In Turkey, it is estimated that the incidence of chronic AF is 1/35.000 adults per year and its prevalence is 1/310.000 adults (3). Due to the symptoms and related thromboembolic complications, AF can lead to several adverse outcomes ranging from the deterioration in quality of life to death. For that reason, the current guidelines in the management of AF patients are constantly being updated in the light of new information. Given that AF can manifest in a variety of clinical situations and different treatment options are available, physician responses to these situations may not be equally homogeneous. It is not known exactly how well the current guidelines can be adopted for physicians in clinical practice. To partly clarify this issue, we share the results of an AF awareness questionnaire that was conducted at the 2017 interventional cardiology congress.

MATERIALS and METHODS

We conducted a paper-based survey of cardiologists attending the 2017 interventional cardiology congress. Cardiologists participating in the study were required to be experts and fellowships were not accepted. The questionnaire was randomly offered to the participants, but the participation in the survey was voluntary. The demographic data related with age, sex and years of professional experience were collected. Participants were queried on; i) AF recognition and medical treatment approaches in a certain situation, ii) approaches to AF ablation, and iii) the perioperative management of anticoagulation and antiplatelet therapy in patients with recent stent implantations. To identify the bleeding risk, HAS-BLED (Hypertension, Abnormal renal/liver function, Stroke, Bleeding history or predisposition, Labile international normalized ratio, Elderly (> 65 years), Drugs/alcohol concomitantly) score was used in some circumstances (4). The CHA2DS2-VASc score (congestive heart failure, hypertension, age, diabetes mellitus, stroke, vascular disease, and sex) was used to define the stroke risk (5). An approval was received for the evaluation and publication of the survey results, but the ethics committee approval was not required because no private patient data was shared. We performed all statistical analyses using SPSS version 21 (IBM Corporation) and descriptive statistics as appropriate.

RESULTS

The average age of participants (115 males and 19 females) was 39.3 ± 5.6 years. The duration of experience of participants was 13.5 ± 5.2 years in general cardiology practices and 8.0 ± 4.3 years in invasive cardiology practices.

While 57.46% of participants defined a minimum duration of 30 seconds for an AF episode, the majority of the remainder stated that this time as a minimum of 10 seconds. Three-quarters of the participants preferred direct oral anticoagulants (DOACs), while the remainder preferred vitamin K antagonist (VKA) in patients with mild mitral stenosis. While 84.18% of physicians preferred using the rhythm control strategy in the same patient, only 14.23% of physicians preferred using the rate control strategy. For AF patients with hypertrophic cardiomyopathy whose CHA2DS2-VASc score was zero, 58.96% of physicians preferred to prescribe acetylsalicylic acid (ASA), while 33.58% of physicians preferred to prescribe oral anticoagulants (OACs) (Figure 1).

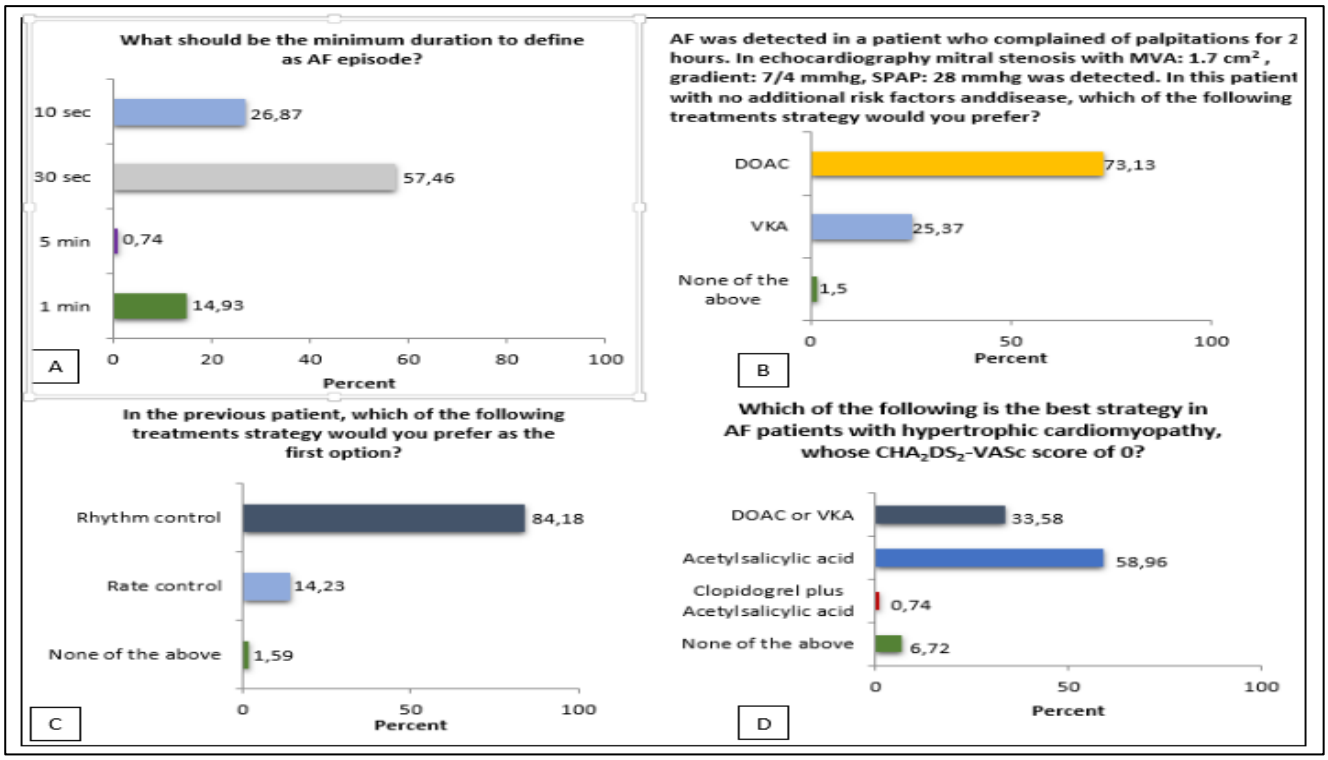

Figure 1. *AF recognition and medical treatment approaches in certain situations. AF; Atrial fibrillation, MVA; Mitral valve area, SPAB; systolic pulmonary artery pressure, DOACs; Direct oral anticoagulants, VKA; Vitamin K antagonist*

When considering the ablation option for paroxysmal AF patients without structural heart disease, 73.88% of physicians preferred ablation after the third attack in symptomatic patients, and that preference rate decreased to 48.51% in asymptomatic patients (Figure 2).

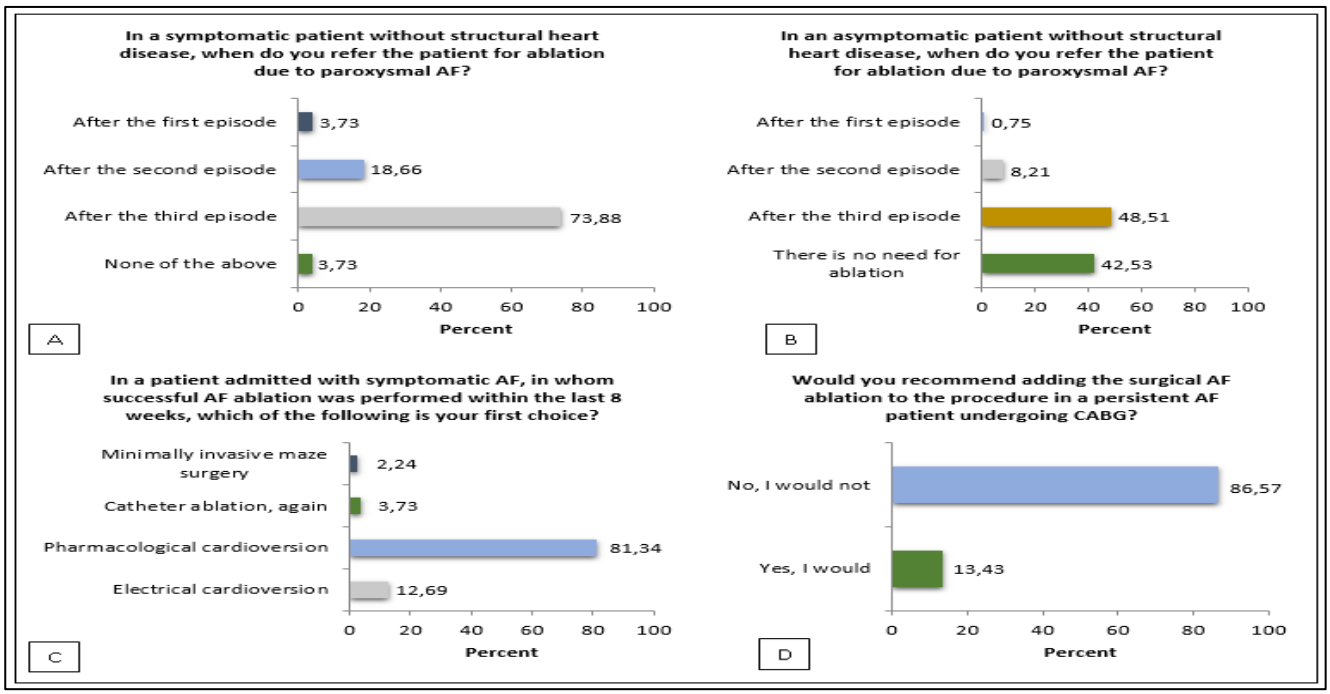

Figure 2. *Approaches to atrial fibrillation in terms of ablation and surgery. AF; Atrial fibrillation, CABG; Coronary artery bypass grafting*

In patients admitted with symptomatic AF and in whom successful AF ablation was performed within the previous eight weeks, 81.34% of physicians preferred pharmacological cardioversion. Most survey participants did not recommend adding surgical AF ablation to the procedure in patients with persistent AF undergoing coronary artery bypass grafting (CABG).

In non-valvular AF patients with high bleeding risk, bare-metal stents (BMSs) were preferred over drug-eluting stents (DESs) in cases of acute myocardial infarction. The preference for the use of BMSs was more prominent in cardiologists with more than 13 years of experience (p = 0.01). When considering the use of OACs together with dual antiplatelet therapy (DAPT) in patients who had had stent implantations due to acute myocardial infarctions, 64.18% of physicians preferred using DOACs in AF patients with HAS-BLED scores of 2 and CHA2DS2-VASc scores of 1 for men or 2 for women, respectively.

Regarding the duration of prescribing OACs in combination with DAPT in patients with implanted DESs due to acute myocardial infarction, 64.18% of physicians prescribed the triple therapy for three months, followed by dual therapy for 12 months. However, one-quarter of participants chose to prescribe the triple therapy for one month, followed by dual therapy for 12 months in these cases. In cases of elective percutaneous coronary intervention, the preferred triple therapy prescription times were shortened to one month by 41.79% of participants (Figure 3).

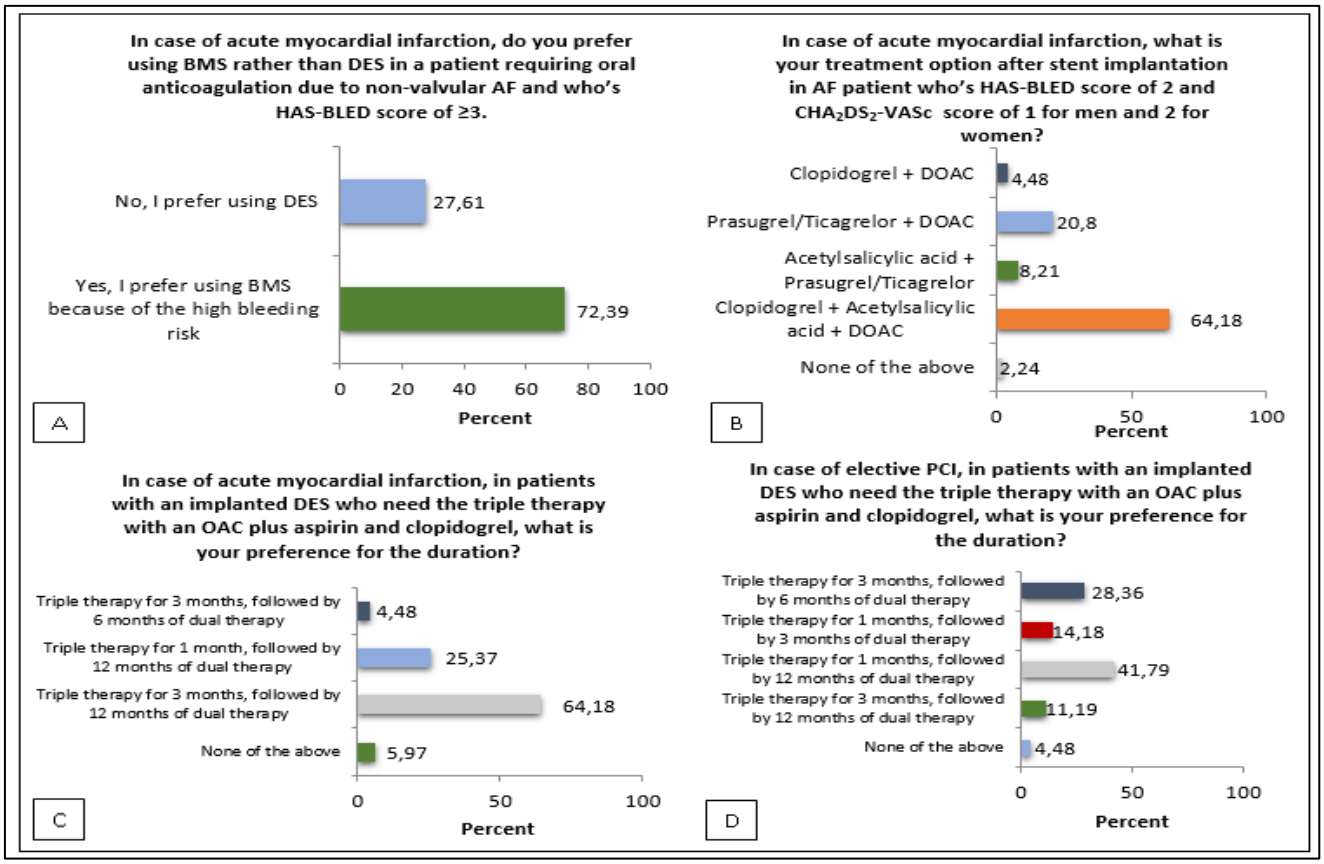

Figure 3. *The management of anticoagulation and antiplatelet therapy in patients with recent stent implantation. BMS; Bare-metal stent, DES; Drug-eluting stent, DOACs; Direct oral anticoagulants, OAC; Oral anticoagulant, PCI; Percutaneous coronary intervention*

DISCUSSION

With this survey, we had an opportunity to gather information about the different approaches among Turkish cardiologists to AF in different clinical situations. This questionnaire reveals that the approach of experienced invasive cardiologists to AF is heterogeneous. The survey was conducted at the congress instead of the single center, so that we could ensure that opinions were homogeneously distributed across the country and thus support the overall or partial generalizability of the results.

As defined in the 2016 European Society of Cardiology (ESC) guidelines for the management of AF, the duration of 30 seconds or more is required to be diagnosed with AF (6). An accurate expression of this period in our survey seems to be low. Considering that it has been almost two years since the publication of these 2016 guidelines, the follow-on by invasive cardiologists may appear to be inadequate. In cases where AF accompanies valvular heart disease, the thromboembolic risk and the possible risk of stroke increases (7). Most participants preferred using DOACs in patients with mild mitral stenosis and AF, which is consistent with the current guidelines. It is important to state that, in patients with moderate to severe mitral stenosis and AF, VKA should be preferred over DOACs (6).

It is not uncommon for patients with hypertrophic cardiomyopathy to also have AF. ASA is not proposed for these patients, and it is recommended that DOACs or VKA must be prescribed regardless of the CHA2DS2-VASc scores. Although not compatible with the guidelines, it should be noted that more than half of our participants preferred to use ASA in these cases. This result may suggest that invasive cardiologists do not have enough experience in the treatment approach for this situation.

Catheter ablation is recommended for patients with symptomatic paroxysmal AF after the failure of antiarrhythmic drug therapy (8, 9). Therefore, AF ablation is becoming increasingly frequent in Turkey, in parallel to the world. According to the survey results, the participants did not recommend AF ablation after the first episode, even in symptomatic patients. This implies that the participants may be reluctant to perform an invasive intervention. Also, this may be due to insufficient experience for AF ablation or that physicians prefer to continue following conventional trends in the planning of AF therapy. Although several clinical trials have shown that catheter ablation improves exercise capacity and the quality of life, there is no conclusive data for catheter ablation in asymptomatic patients (10). Consistent with this data, most participants preferred not to use catheter ablation because of the lack of evidence that catheter ablation is effective for asymptomatic patients.

Recent guidelines recommend to add surgical ablation to CABG for symptomatic patients with AF that is refractory or intolerant to antiarrhythmic drug (AAD) (class I recommendation), and also who have not been treated with AAD before (class IIa recommendation) (8). However, the overwhelming majority of invasive cardiologists who participated in our survey do not suggest adding surgical ablation to CABG. This may be because concomitant AF is not cared for enough in patients referred for surgery or because the clinical consequences are ignored.

The superiority of newer-generation DESs over BMSs in high bleeding risk patients has been demonstrated by two randomized trials (11, 12). In the 2014 European Society of Cardiology/European Association for Cardio-Thoracic Surgery guidelines on myocardial revascularization, the use of DESs were recommended in patients with low bleeding risks, but this recommendation was unclear for patients with high bleeding risks. This approach was consistent with participant preferences (13). However, in the DAPT guideline published after our questionnaire, the new generation DES proposal with regard to bleeding risk was more clearly expressed, and we expect that the diversity reflected in our survey results will be eliminated (14).

Even if there was a gap of evidence for using DAPT in AF patients for a long time, the number of prasugrel or ticagrelor prescriptions together with DOACs preferences of participants is incompatible with the guidelines. According to four DOACs AF trials, it is likely that the efficacy of DOACs over VKA is maintained in patients exposed to antiplatelet therapy due to AF (15-18). The triple

treatment option should be preferred for one or six months considering the risk of ischemia and bleeding in patients with anticoagulation indications. But if the risk of bleeding is prevailing, then dual therapy (clopidogrel plus OAC) may be preferred for 12 months (14). The uncertainty about this issue before the DAPT guidelines, and the lack of a clear proposal, could partly explain the difference in participants' responses.

The AFTER (Atrial Fibrillation in Turkey: Epidemiologic Registry) study, which was conducted with 2242 AF patients in Turkey, stated that the most important reason for patients not taking OAC (69%) is the physician negligence (19). According to another study, the most frequent reason for not giving OAC treatment was the low tendency of physicians to prescribe the drug (74.3%)(20). Effective INR levels were achieved in 52.4% of the patients using VKA due to AF (21). Considering all these data, it can be said that more time and attention should be given to AF patients, and the management of these patients should be improved.

The reason for these different approaches by experienced invasive cardiologists may be partially due to inadequate follow-up to the current guidelines, the lack of standardization in different invasive centers, the nonspecificity of invasive centers interested in arrhythmias and AF in particular, or ignoring AF as an important cause of morbidity and mortality.

CONCLUSION

This survey evaluated the definition of AF, the preferences for rate or rhythm control, the approach to using anticoagulants in different situations, the role of invasive treatment in AF, and the approach to the association of AF with coronary artery disease. We have demonstrated that invasive cardiologists may have heterogeneous behaviors and tendencies in the diagnosis, treatment, and follow-up of AF.

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