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اسباب وعلاج رجفان الاذين باستعمال مضادات الخثار في البصره

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الخلاصه

رجفان الاذين هي اكثر انواع لانظمية القلب شيوعا.الهدف من هذه الدراسه هو لتقييم اسباب رفرفة الاذين ،استعمال ،فوائد ومخاطر مضادات الخثار في رجفان الاذين في البصره.كانت هذه دراسة استرجاعيه اجريت للفتره من حزيران ٢٠٠٠ الى حزيران ٢٠٠١.مائة وخمسه وسبعون مريضا من معدل عمر من ١٩ الى ٨٨ سنه مع رجفان الاذين مختلف الاسباب شملوا بهذه الدراسه،منهم ٢٠ (١١,٤%) استعملو وارفارين(منهم ٦ جرعه مضبوطه)،٧٢(٤١,١%)استعملوا اسبرين وسبعه(٤%) استعملوا اسبرين ووارفارين،والبقيه ٧٦(٤٣,٤%)لم يستلموا علاج.

تم دراستهم حول حصول المضاعفات.من مجموعة العلاج، ١٢ (١٢,١%) حصلت لهم طارئه وعائيه دماغيه،كانوا ٨ من مجموعة الاسبرين و٤ من مجموعة الوارفارين.من المجموعه التي لم تستلم العلاج ،١٠(١٣,١%) حصلت لهم طارئه وعائيه دماغيه.كانت المضاعفات هي خثره انصماميه انتقلت الى الاطراف السفلى فى ٢ من المرضى و٢ الى شرايين المساريق.كانت المضاعفات فى مجموعة الوارفارين هي نزف من المعده والامعاء في ٢ و١ نزف داخل الدماغ.توفي ١٥ مريضا،منهم ٨ بسبب عجز القلب،٤ بسبب طارئه وعائية دماغيه ،٢ انسداد الاوعيه الدمويه في المساريق،و ١ بسبب انصمام رئوي.فقط ٨ من ٩٣ (٨,٦%)من المجموعة عالية الخطوره للخثرة الانصماميه استعملت وارفارين بصوره لائقه مضبوط الجرعه.الاستنتاج كان هو ان مضادات الخثاراستعملت بصوره قليله في حالات رجفان الاذين وحتى فى حالة الاستخدام لم يكن بجرعه مضبوطه في اغلب الحالات بسبب تكلفة المراقبه،الخوف من النزف وضعف الالتزام.

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THE CAUSES AND TREATMENT OF ATRIAL FIBRILLATION WITH ANTITHROMBOTICS IN BASRAH

Sa'ad Shaheen Hamadi** * Abbas Ali Mansour**

ABSTRACT

Atrial fibrillation (AF) is the most common cardiac arrhythmia. The aim of this study is to evaluate the causes, uses, benefits and the risks of antithromotics (AT) treatment in patients with AF in Basrah.This is a retrospective study done for the period from June 2000 to June 2001.One handerd seventy five patients with an age range 19 -88 years with AF of different causes were included in this study. Of them 20 (11.4%) received warfarin (6 of them adjusted dose), 72 (41.1%) received aspirin, and 7(4%) received both aspirin and warfarin, the remaining 76(43.4%) received no treatment. They were studied for complications.Of the treatment group , 12 (12.1%)patients developed cerebrovascular accident(CVA) , they were 8 patients with aspirin treatment , and 4 from warfarin group .In those with no treatment 10(13.1%) patients developed CVA . Other complications included arterial embolization to the lower limbs in 2 patients , and 2 to mesentric arteries . The complications in the warfarin treatment group were gastrointestinal bleeding in 2 , and 1 intracranial hemorrhage . Fifteen Patients died , 8 due to heart failure, 4 due to CVA, 2 with mesentric vascular occlusion, and 1 with pulmonary embolism. Only 8 out of 93 (8.6%)high risk patients for thromboembloism , received the proper warfarin in adjusted dose .In conclusion AT are underused in AF patients, and even if it is used, it is not in adjusted doses in most of them , because of cost of monitoring ,fear of bleeding and poor compliance.

KEY WORDS **: atrial fibrillation,drug therapy,anticoagulent,aspirin.**

INTRODUCTION

Atrial fibrillation(AF) is the most common cardiac arrhythmia.[1] The prevalence increases with age as well as the complications mostly thromboembolic phenomenon . In developing countries, rheumatic heart disease accounts for most of cases, so the incidence in the young is more, while in western countries it is mostly due to structural heart disease , or hypertension .[2] Its incidence is 0.5% yearly ,increases to 10% in males and 12.2% in females above 70 years . Thromboembolic disease and stroke are the most important complications of AF and their occurrence increases in both paroxysmal and chronic AF.[3] To prevent the complication of AF a hazardous treatment with antithrombotics(AT) should be started, but should be weighed against the risk of bleeding .

Risk factors for stroke in patients with non valvular AF include age above 65 year ,previous cerebrovascular accident (CVA) or transient ischaemic attack(TIA), a previous history of an embolic events ,diabetes mellitus(DM), hypertension ,as well as heart failure(HF).[3,4] Patients with any of these risk factors have an annual stroke risk greater than 4%.[4] Rheumatic AF is not included in this group because of very high risk of thromboembolism and alone is a definite indication for warfarin.[5,6]

The aim of this study was to evaluate the causes, uses, benefits and the risks of AT treatment in patients with AF in Basrah.

PATIENTS AND METHODS

This is a retrospective analysis of patients attained two hospitals in Basrah (Teaching Hospital and Basrah Military Hospital) from June 2000 to June 2001 with AF.The causes were reviewed and also the investigations and the lines of AT(aspirin alone, warfarin alone adjusted dose or fixed dose ,warfarin with aspirin or no AT).Any complication developed in the patients due to AF itself or AT were reported over that period. Adjusted dose means controlling of the dose of warfarin according to the international normalized ratio(INR) to keep it 2-3,while fixed dose means the use of warfarin in small doses 1-2 mg without INR monitoring.Aspirin dose ranged from 100 mg to 650 mg/day. Patients stratify into risk groups according to recommendations of others.[3]

RESULTS

Table 1 shows the age, and sex distribution of the patients. Females were more than males (98/77),with age range 19 -88 year.

Table 2 presents the causes of AF .The commenst causes were ischemic heart disease(IHD), hypertension and rheumatic mitral valve diseases (RMVD) .

Table 3 shows the type of AT used in our patients.Warfarin alone used in 20 patients(14 fixed dose,6 adjusted dose) and in combination with aspirin in another 7 patients(all were fixed dose) ,aspirin alone was used in 72 ,while 76 patients were on no treatment.

Table 4 stratifies patients with AF into 2 risk groups according to the risk of developing complications . It shows the line of AT given and the CVA developed in each group. The high risk group constitutes 93(53.1%) of all patients. In the high risk group, CVA developed in 5 (12.1%) of patients on aspirin , 4 (30.7%) of those received fixed dose of warfarin and 12(41.3%) of those on no treatment.None of those in high risk group on adjusted dose of warfarin developed CVA.In the low risk group, only 1 (3.2%)with aspirin developed CVA. It is interesting that among the 6 patients received warfarin in adjusted dose in all risk groups , no one developed CVA. CVA occured in 22

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(12.5%)patients.Some of the patients presented with CVA for the first time and discovered to have AF.

Table 5 shows the associated diseases and different complications according to AT used. CVA were seen in 8 patients on aspirin alone, and 10 patients in the no treatment group.

Table 6 shows subgroups of patients who developed CVA.

Table 7 illustrates the causes of death in the patients,heart failure (HF) was the cause in 8 patients, CVA in 4 patients, and 2 died of acute abdomen due to mesenteric occlusion.

DISCUSSION

The occurrence of AF is increasing with age.[1,7] This was also observed in our patients. It is more in the age above 50 years,but there are few above the age 70 years. In western societies , the prevalence is rising to 10% above 70 year.This discrepancy may be explained by the difference in life expectancy between our society and theirs and the cause in developing countries is RMVD.[8]

The commonest causes of AF in our series were IHD followed by hypertension and RMVD consequently, which is similar to what was seen by others.[1,5] The condition is commonly chronic or sustained because the causes are usually irreversible.

For high risk group ,warfarin in adjusted dose is definitely superior to aspirin in preventing thromboembolic complications of AF.[3] And aspirin is less useful than warfarin in decreasing the risk of thromboemolism .[9] Moreover combination of fixed low-dose warfarin with aspirin was also ineffective and much inferior to therapeutic warfarin.[10] Patients with AF who are older than 65 and those with risk factors، irrespective of age, should, therefore, receive warfarin at INR of 2-3.Low-risk AF patients may be treated with 325 mg aspirin daily.[4,11]

Anticoagulation produces a 25 percent reduction in embolic events in patients with atrial fibrillation and mitral valve stenosis [12] and a 75 percent reduction in the incidence of stroke and transient ischemic attacks in patients with nonvalvular atrial fibrillation.[13]

No AT were given to 76 (43.4%) patients. Aspirin was used in 72(41.1%) patients, warfarin in 20 (11.4%), and both aspirin and warfarin in 7 (4%) patients.Warfarin was underused in our patients because of cost of monitoring , fear of bleeding and poor compliance of our patients .Even if it is used, it is not adjusted according to INR . Similar explanation was given by Flaker et al(1999). [14] Only 5 out of 93(5.3%)high risk patients for thromboembloism ,were recived the proper warfarin dose according to the INR.

It is now established that warfarin in fixed dose unadjusted to INR, is ineffective.[10,15]

The cause of death was CHF in 8 patients, CVA in 4 patients, 2 due to acute abdomen (mesenteric embolism). One patient died due to pulmonary embolism. This is similar to what was recorded before by most of authors.[2,3,5]

In our series two patients developed GIT bleeding and one patient developed intracranial hemorrhage while on warfarin, so before the use of these drugs we should weigh the benefit versus the risks of the side effects of these drugs. With cost effectiveness, Gage et al(1997) found that it would affect the quality adjusted survival minimally, with increase of the cost significantly, if there was no risk factor other than AF.[16]

We conclude that the use of AT in patients with AF was limited, and even if used not adjusted to optimal INR, because the cost of monitering ,of loss of follow up , risk of bleeding and poor patient compliance.

Table 1- Age and sex distribution of patients with AF

Age	*Male*	*Female*
≤٢٠	*3*	*1*
21-30	*9*	*6*
31-40	*11*	*4*
41-50	*11*	*27*
51-60	*15*	*31*
61-70	*21*	*23*
71-80	*7*	*4*
>80	*-*	*2*
Total	*77*	*98*

Table 2- Causes of AF

*Causes**	*Number of patients*
IHD	73(41.7%)
Hypertension	49(28%)
*RMVD***	48(27.4%)
Lone	30(17.1%)
Thyrotoxicosis	10(5.7%)
Atrial septal defect(ASD)	5(2.8%)
Aortic valve disease	2(1.1%)
Cardiomyopathy	3(1.7%)
Alcohol	2(1.1%)
Myxoma	1(0.5%)
Chronic obstructive pulmonary disease(COPD)	1(0.5%)
Constrictive pericarditis	1(0.5%)
Primary pulmonary hypertesion	1(0.5%)
Total	*226

**Some have more than one cause.*
***Two of them with prosthetic mitral valve.*

Table 3 -Groups of patients according to drugs

No treatment	*Aspirin*	*Warfarin*	*Both drugs*
76(43.4%)	72(41.1)	20(11.4%)	7(4%)***
		14*	
		6**	

** fixed dose **adjusted dose*
**** all in fixed dose warfarin*

Table 4 -Risk groups, antithrombotics used and development of CVA

Drug	**High risk*	*CVA (%)*	*Low*	*CVA (%)*
Aspirin	**41**	**7(17%)**	**31**	**1(3.2%)**
Warfarin in fixed dose	**13**	**4(30.7%)**	**1**	**-**
Warfarin adjusted dose	**5**	**-**	**1**	**-**
Aspirin and warfarin	**5**	**-**	**2**	**-**
No Rx	**29**	**10 (34.4%)**	**47**	**-**
Total	**93 (53.1%)**	**21**	**82 (46.8%)**	**1**

**includes valvular heart disease ,age more than 65 year ,hypertension,DM,previous CVA or TIA and HF*

Table 5- Complications and associated diseases in different groups of treatment

	Aspirin	*Warfarin*	*Both*	*No treatment*
CVA	**8**	**4**	**-**	**10**
Pulmonary Embolism	**1**	**-**	**-**	**-**
Mesentric vascular occlusion	**2**	**-**	**-**	**-**
HF	**25**	**8**	**-**	**-**
Gastrointestinal bleeding	**2**	**-**	**-**	**-**
*Other bleeding**	**2**	**-**	**-**	**-**
Peripheral embolism	**2**	**-**	**-**	**-**
Death	**12**	**1**	**-**	**2**
DM	**11**	**1**	**-**	**-**

** Epistaxis, Intracranial*

Table 6-Subgroups of patients with CVA

	Aspirin	*Warfarin*	*Both*	*No treatment*
IHD	**5**	**1**	**-**	**5**
Hypertension	**-**	**-**	**-**	**1**
RMVD	**1**	**2**	**-**	**2**
Myxoma	**-**	**1**	**-**	**-**
Lone	**2**	**-**	**-**	**2**

Table 7 -Causes of death

HF	*Pulmonary Embolism*	*Mesentric vascular occlusion*	*CVA*
8	**1**	**2**	**4**

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