

Treatment and Evolution of Stroke Associated with non Valvular Atrial Fibrillation

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Abstract

Atrial fibrillation is a heart rhythm disorder that is very commonly caused by stroke. Our work aimed to describe the therapeutic and evolutionary aspects of stroke on non-valvular FA in the cardiology department of the G-spot hospital in Bamako. This was a retrospective and prospective study from January 1, 2016 to May 30, 2018 in the cardiology department of Point G University Hospital, which included all records of patients hospitalized for stroke on non-valvular FA.

During the study period on 2823 patients admitted, 50 were admitted for non-valvular stroke / FA, representing a hospital prevalence of 1.77 %. The average age in the series was 66 years. The predominance was male with a sex ratio of 1.3. Cardiovascular risk factors were dominated by HTA (74 %) and smoking (34 %). This was a permanent FA in 90 % of cases and 40 % were already on platelet aggregator treatment at admission. The general condition was maintained in most of our patients (86 %), 76 % of our patients were noted for body hemi deficiency. This was a fast FA in 80 % of cases at the ECG. On cardiac ultrasound the dilation of the left atrium was described in 42 % of cases. All of our patients had a SHA2DS2VASC score greater than two and 27% had a high HASBLED of 3. Anticoagulation was performed in 58 % and platelet antiaggregant in 42 % due to financial resource problems and the lack of an analysis laboratory in these communities. The most prescribed anti-arrhythmic drug was beta blocking with 42 % of cases. In only 8 % of our patients an attempt at chemical reduction with amiodarone had been attempted and had failed. Digoxin was prescribed 11 times for frequency control. The average stay was 15 days. Overall mortality was 24 %.

Strokes complicating non-valvular atrial fibrillation are frequently encountered in cardiology and the therapeutics remains very limited in terms of reduction and anticoagulation with high mortality.

Keywords: Stroke; Atrial fibrillation; Therapeutic; Evolution

Introduction

Stroke / atrial fibrillation are a major cause of mortality and morbidity. FA is responsible for the formation of thrombus in the left auricle, which results in strokes. FA is a common condition that believes at the same time as the aging of the population reaching 1 to 2% of the general population and 5 to 15% of the population over 80 years^[1]. It is estimated that approximately 15% to 20% of strokes are attributable to FA^[2]. Once the therapeutic of these strokes / non-valvular FA remains very limited by the under-delivery of the anticoagulant and the reduction of the pace hence the interest of this study to describe the therapeutic and evolutionary aspects of stroke associated with non-valvular atrial fibrillation in patients hospitalized or followed in the cardiology department of the Hospital Point "G".

Materials and methods

This was a prospective and analytical study conducted in the cardiology department of the Point "G" Hospital from January 1, 2016 to May 30, 2018 and involved all patients hospitalized during the study period.

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The inclusion criteria were patients of both sexes hospitalized or followed in the cardiology ward for stroke on non-valvular atrial fibrillation and who performed cerebral CT, ECG and cardiac Doppler ultrasound.

Included in the study were:

- Patients admitted on suspicion of stroke on FA who did not complete the inclusive check-up,
- patients with incomplete records,

The judging criteria were based on:

Valvulaire1- The positive diagnosis of atrial fibrillation, was based at the ECG on:

- a non-sinus rhythm with absence of P wave, - ripples of the baseline with abnormal ear waves of a very high frequency between 400 to 600/mn, - non-equidistant and non-equipotent QRS.
- The absence of mitral shrinkage or mitral or aortic valve prosthesis to echocardiography.
- An ischemic lesion on the territory of a cerebral artery at the CT scan

The CHA2DS2VASC score was the thrombotic score used in this work.

The HASBLED score was the hemorrhagic score used in this work.

The new oral anticoagulants have not been used in this work.

Definition of terms

Atrial fibrillation (AF) is a supra ventricular rhythm disorder characterized by anarchic and ineffective atrial electrical activity resulting in impaired mechanical function of atria. Ventricular activity is irregular, usually rapid in the absence of auriculoventricular conduction disorders.

Non-valvular atrial fibrillation is an atrial fibrillation that occurs in the absence of mitral shrinkage or prosthetic.

Stroke is a neurological dysfunction of vascular origin to be intended cerebral and or reset following here to a left intra atrial thrombus.

Data collection

Patients were recruited from the hospitalization record. The parameters studied in this file were sociodemographic and clinical data, NFS results, thyroid hormone dosage, fasting blood glucose, creatinemia, blood ionogram, head chest x-ray, echocardiography, ECG and cerebral CT. Word and Excel 2013 software was used for data entry and SPSS 16.0 and Epi Info 3.3.2 software for analysis. The static test used was ki2 with a threshold of 5.

Results

During the study period on 2823 patients admitted, 50 were admitted for non-valvular stroke/FA, representing a hospital prevalence of 1.77%. The average age in the series was 66 years with distribution growth up to 80 years. The predominance was male with a sex ratio of 1.3. Cardiovascular risk factors were dominated by HTA (74%) and smoking (34%). 34% of patients had a history of non-valvular heart disease. Body hemi deficiency and

left heart failure were the reasons for major consultations with 76% and 48% respectively of frequency. Stroke was the time of discovery of FA in 30 percent of patients. The general condition was maintained in most of our patients (86%), 76 percent of our patients were diagnosed with body hemi. Fa was permanent in the majority of cases with 90% of cases.

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hemorrhagic incidents were recorded.

The average hospital stay was 15 days and a favourable natural development without hospital complications in 76% of cases. Mortality was 24%.

Conclusion

Ischemic stroke on atrial fibrillation is an entity frequently encountered in hospitalization in the cardiology ward; the search for an FA must be performed in front of any neurological deficit that is most often revealing. Anticoagulant treatment should be tailored to each clinical situation, taking into account age, the presence of comorbidity and certain contraindications

Table 1: Distribution of patients by age and sex

| Age en année | Sexe | | | |
|--------------|-----------|--------|-----------|--------|
| | Masculin | | Féminin | |
| | Effectif% | | Effectif% | |
| 20-40 | 01 | 0 3.20 | 01 | 0 5.26 |
| 41-60 | 05 | 16.13 | 03 | 15.80 |
| 61-80 | 17 | 54.40 | 09 | 47.00 |
| 81 et plus | 08 | 25.80 | 06 | 31.57 |
| Total | 31 | 100 | 19 | 100 |

Table 2: Distribution of patients according to personal medical history

| Antécédents médicaux | effectifs | % |
|-------------------------------|-----------|----|
| HTA | 37 | 74 |
| Cardiopathies non valvulaires | 17 | 34 |
| Diabète | 13 | 26 |
| Hyperthyroïdie | 04 | 08 |
| Aucun | 08 | 16 |

Table 3: Distribution of patients according to anti-thrombotic, anti-arrhythmic and digital therapy

| Médicaments | | Effectif | % |
|-------------------|---------------|----------|----|
| Anti thrombotique | AVK | 29 | 58 |
| | AAP | 21 | 42 |
| Anti arythmique | Béta bloquant | 24 | 48 |
| | Amiodarone | 04 | 08 |
| Digitalique | 12 | 24 | |

Table 4: Distribution according to hospital development and length of hospital stay

| Durée de séjour | Evolution | | | |
|----------------------|-----------|----|-------|----|
| | Favorable | % | Décès | % |
| Inférieur à 10 jours | 13 | 26 | 7 | 14 |
| Supérieur à 10 jours | 25 | 50 | 5 | 10 |

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