

groups. On linear regression analysis, knowledge scores correlated strongly with education, income, residence, diabetic state, BMI and attitude.

In another study on Knowledge, Attitude and Practice of Type 2 Diabetic Patients Visiting Diabetic OPD of TUTH and Non-Diabetic Population of Kathmandu by Sapkota Yogita (2018), the KAP of participants were assessed 60; 70 and 47.8 % of the diabetic participants had good KAP scores respectively. A significant relationship existed between total KAP score and education level of the patient and with physical activity level of the patient. No significant relationship between total KAP score and age group and genetic history of patient. 40; 73.3 and 51.1 % of the non-diabetic participants had good KAP score respectively. There was a significant difference between the mean knowledge score of diabetic and non-diabetic group and a significant difference between mean attitude score of diabetic and non-diabetic group. The study revealed a good level of knowledge and attitude but poor level of practice score in the diabetic populations and a poor level of knowledge and practice score but a good level of attitude score of the non-diabetic population was explored.

In a study conducted by Alzahrani Salem et al on the knowledge, Attitude, and Practice Regarding Diabetes Mellitus among General Public and Diabetic Patients in Riyadh, Saudi Arabia (2018), the participants' knowledge was assessed based on their understanding of DM, which included the causes, risk factors, symptoms, complications, and treatment options. They also concluded that the difference in the knowledge levels among all participants was directly related to the level of literacy, level of training received and availability of information on diabetes. Male respondents had a higher score in knowledge as well attitude while the practice scores were higher for female: that indicated a disciplined and coordinated effort from the female cohort in preventing menace of DM despite possessing a low knowledge. Even though the majority (>75 %) had either moderate or good knowledge, it was not reflected on their attitudes (46 %) and practices (43 %).

### **Conclusion**

General public and patients should be well educated on the basic pathogenesis of diabetes, risk factors and complications so as to be sure they have good knowledge which will in turn improve their attitude and practice regarding diabetes. Health literacy, counselling and education program should be made readily accessible to the general population and in-patients.

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## **EVALUATING THE CAUSES, SYMPTOMS AND THE RISK OF STROKE IN BELARUSIAN PATIENTS, WITH ATRIAL FIBRILLATION**

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### **Introduction**

Atrial fibrillation (Afib) is the most common sustained cardiac arrhythmia, it's characterized by rapid and irregular beating of the atrial chambers of the heart, sometimes episodes

have no symptoms. Occasionally there may be heart palpitations, fainting, shortness of breath, or chest pain. The atrial fibrillation, often associated with an increased risk of heart failure, dementia, and stroke [1]. Mostly, Atrial fibrillation renders significant morbidity among the geriatric population, often leads to stroke or other cardiac complications. So, an anamnesis-based questionnaire was used for this study, among the target patients to understand the causes and impact of symptoms over the patient's life. And also, the patient with Afib is considered 5 times higher risk for stroke. So that, it is very important to evaluate the risk of stroke for selecting antithrombotic therapy for Afib patients as a prevention [2].

#### ***Aim***

To understand the causes of atrial fibrillation and impacts of symptoms on the patient's life and evaluating the risk of stroke to prevent it.

#### ***Subjects and methods***

An anamnesis-based questionnaire study in 31 patients from Gomel state clinical hospital № 3, Gomel, Belarus was used. The patients for collecting the anamnesis data (age, past medical history, present complaints, smoking and drinking habits, etc.) to denote the causes of Afib and its symptoms were examined. Later, patients were categorized by their gender (male or female) and types of Afib (paroxysmal, persistent, long-standing persistent, permanent). To describe the severity of symptoms of Afib, we used Canadian cardiovascular society — the severity of atrial fibrillation scale (CCS-SAF), which as score ranges from 0 to 4 those are classified as class 0 (asymptomatic), class 1 (minimal effect), class 2 (minor effect), class 3 (moderate effect), class 4 (severe effect) and scale is assessed based on 3 parameters Afib related symptoms, determination of symptoms rhythm correlation, assessment of the effect of symptoms on function and quality of life. By using CHA2DS2-Vasc risk score for assessing the risk of stroke and for selecting antithrombotic therapy. This scoring system contains cardiac failure = 1, hypertension = 1, age  $\geq 75$  = 2, DM = 1, stroke = 2, vascular disease = 1, age 64–75 = 1, female = 1. The maximum scores are 9. By using this guideline, I reviewed recommend of antithrombotic therapy to patients in this study. those recommend are divided into 3 categories according to the scoring system in that, score 0 (no recommend), score 1 (recommends for oral anticoagulation or antiplatelet), score  $\geq 2$  (recommend oral anticoagulation). All the numerical data of the study were collected and compared in Ms excel.

#### ***Results and discussions***

As an initiative method to find the risk age group of Afib, the average age of the 31 patients were 65.5 (48–80). In that, 15 male (M) of 48.39 %, mean age = 62.2 and 16 female (F) of 51.61 %, mean age = 68.8. then, we separated the patients according to their age into five categories, which are <60 age (M – 4, F – 2), 60–69 age (M – 9, F – 6), 70–79 age (M – 2, F – 7), >80 age (M – 0, F – 1). Among the 31 patients, comparing the age of 15 male patients and 16 female patients in those categories, it shows 60 % of male under the age group of 60–69 and 44 % of female under the age group of 70–79 were in risk of Afib. By analysing overall among 31 patients, 49 % of patients were at high risk of Afib seen in this study.

By collecting the anamnesis data from the 31 patients to denote the causes of Afib. In Table 1, we can see the number of causative agents of afib affect these patients.

According to this data, we compared the total values in each category. This shows, 21 % of patients who had a cardiovascular-related disease and 19 % of patients who had hypertension, which led to causes Afib episodes higher than other causative agents were seen in this study.

The patients are also categorized by the types of atrial fibrillation according to the guideline from ACC&AHA, they are paroxysmal (M = 8, F = 12), persistent (M = 4, F = 1), long-standing persistent (M = 0, F = 1), permanent (M = 3, F = 2). We used CCS-SAF scale for describing the severity of symptoms in atrial fibrillation, scale is assessed based on 3 parameters and score ranges. We evaluated by separating the 31 patients according to the score range,

those are class 0 = 0, class 1 = 7 (23 %), class 2 = 10 (32 %), class 3 = 14 (42 %), class 4 = 0. According to this assessment, we found that 42 % of patients under class3 have moderate effect on quality of life and other patients have minor and minimal effects on their life.

Table 1

Causes	15 male patients	16 Female patients	Totally 31 patients
Alcohol induces Afib	3	0	3
Hypertensive	14	14	28
Thyroid disease induces Afib	3	10	13
CVD/ICD/VD	15	16	31
Hereditary	4	8	12
Obesity	9	11	20
Diabetes mellitus	2	4	6
Induce of Afib due to emotion condition & physical activity	2	12	4
other organic disease induces Afib (CKD, LD, ONC, GYNC)	8	10	18

Assessing the risk of stroke in atrial fibrillation and recommendation of antithrombotic therapy for patients by CHA2DS2-Vasc score. With the help of this scoring system, the score ranges of 31 patients is between 1–8. There are no patients with low-risk and zero score. In another side, 3 patients with intermediate-risk and score 1 (10 %), and 28 patients with high-risk and score 2 or greater (90 %). According to the scores given to the patients in CHA2DS2-Vasc, as a recommendation for 3 patients with score 1 are prescribed by an oral anticoagulation or antiplatelet and 28 patients with score 2 or greater are prescribed by an oral anticoagulation. This recommend that antithrombotic therapy should be followed for a lifelong period without negligence.

**Conclusions** in this study, we assessed and understood the causes, severity of symptoms and risk of stroke among the given Belarusian patients. It mainly shows, that patient with cardiovascular-related disease and under the age group of 60–69 provokes high level of atrial fibrillation episodes. Patients with episodes of symptoms have moderate effects on the quality of life. And 90 % of patients in a given population are under high-risk and recommended for oral anticoagulation.

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### ASSESSMENT OF PAIN IN PATIENTS WITH RHEUMATOID ARTHRITIS TO DETERMINE THE DEGREE OF ITS ACTIVITY

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#### **Introduction**

Rheumatoid arthritis (RA) is a chronic systemic disease of connective tissue with unknown etiology. It has complicated autoimmune pathogenesis, characterized by progressive