

**Viktoriya V Titova , Tatyana Yu Demidova**

Demikhov City Clinical Hospital

## INTRODUCTION

Atrial fibrillation (AF) is a common rhythm disorder in patients with type 2 diabetes mellitus (T2DM). The combination of AF and T2DM, often encountered in clinical practice, is associated with a significant additional increase in the risk of stroke and systemic embolism.

## CONCLUSION

In the group of patients with AF and T2DM, the incidence of stroke was 6.7% higher than in patients without diabetes, and the incidence of myocardial infarction in the first group was 6.9% higher. The combination of AF and T2DM, often encountered in clinical practice, is associated with a significant additional increase in the risk of stroke and myocardial infarction.

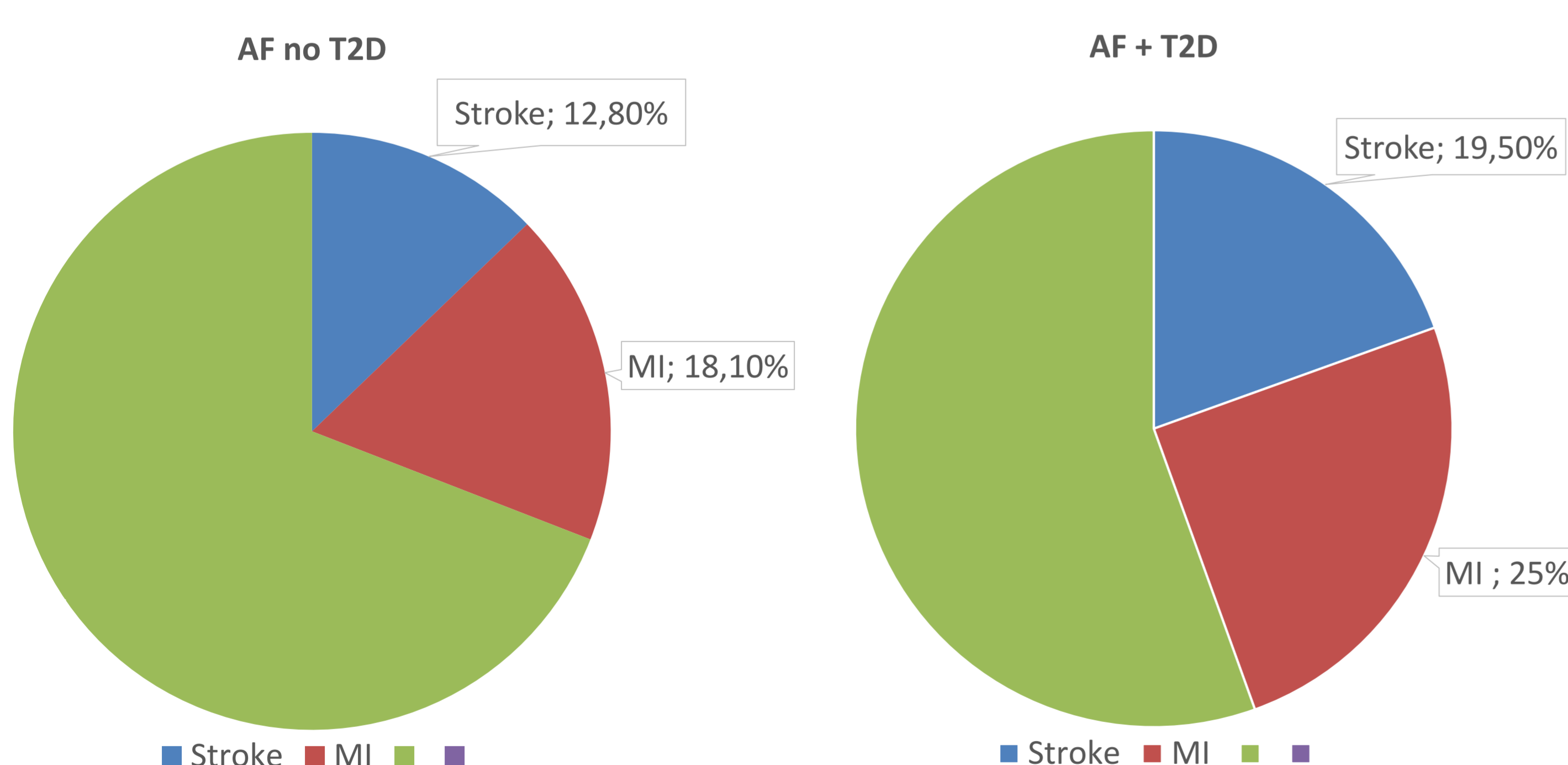
## METHOD

A retrospective study of 253 medical records of patients (41.8% men, 58.2% women) who were hospitalized at the Demikhov City Hospital for 1 year with a diagnosis of atrial fibrillation was carried out. For comparative analysis, patients were divided into 2 groups: patients with atrial fibrillation without diabetes mellitus and patients with atrial fibrillation with type 2 diabetes mellitus. Indicators for which the analysis was carried out: patient age, form of atrial fibrillation, history of diabetes, history of stroke, heart attack, BMI, creatinine, GFR (CKD-EPI), glycated hemoglobin.

Systematization of the initial information and visualization of the results obtained were carried out in Microsoft Office Excel 2016 spreadsheets. Statistical analysis was carried out using the Jamovi software.

## REFERENCES

1. Tingting Geng, Yi Wang, Qi Lu, Yan-Bo Zhang, et al. Associations of New-Onset Atrial Fibrillation With Risks of Cardiovascular Disease, Chronic Kidney Disease, and Mortality Among Patients With Type 2 Diabetes.; *Diabetes Care* 2022 Oct 1;45(10):2422-2429. doi: 10.2337/dc22-0717.
2. A Costard-Jäckle , D Tschöpe, T Meinertz. Cardiovascular outcome in type 2 diabetes and atrial fibrillation/ *Herz*. 2019 Sep;44(6):522-525. doi: 10.1007/s00059-018-4704-4. Epub 2018 May 2.
3. Kimura K., Minematsu K., Yamaguchi T., (J-MUSIC) J. M. S. I. C. Atrial fibrillation as a predictive factor for severe stroke and early death in 15,831 patients with acute ischaemic stroke // *J Neurol Neurosurg Psychiatry*. – 2005. – T. 76, № 5. – C. 679-83.



## RESULTS

The average age of patients was 69 [32, 93] years. 32.4% of the 253 patients with AF had T2DM. Among 171 patients with AF without diabetes, the average age was 70 [32, 93] years, the average BMI was 28.4 [21.9; 41.6], mean GFR 45 [14, 112] ml/min/1.73 m<sup>2</sup>. Among 82 patients with AF and T2DM, the average age was 64 [52, 89] years, the average BMI was 32.5 [27.4; 42.0], mean GFR 41 [17, 96] ml/min/1.73 m<sup>2</sup>, mean HbA1C 6.46% (15.5% of patients had HbA1C>8.0%). Of the 171 patients with a history of AF, 12.8% (22 patients) had a stroke and 18.1% (31 patient) had a myocardial infarction. Of the 82 with AF and T2DM, the incidence of stroke was 19.5% (16 patients), the incidence of myocardial infarction - 25% (21 patient).

## CONTACT

Tatyana Y Demidova, MD, PhD, Professor  
ORCID: <https://orcid.org/0000-0001-6385-540X>; eLibrary SPIN: 9600-9796; Scopus Author ID: 7003771623;  
e-mail: [t.y.demidova@gmail.com](mailto:t.y.demidova@gmail.com)  
Viktoriya V Titova, MD, assistant  
ORCID: <https://ORCID.org/0000-0002-8684-6095>; eLibrary SPIN: 7864-2910; e-mail: [meteora-vica@mail.ru](mailto:meteora-vica@mail.ru)