**Abstract**

Today, obesity in the form of metabolic syndrome (MS) and atrial fibrillation (AF) have reached epidemic proportions according to World Health Organization (WHO). AF is present in over 34 million people worldwide and this number is expected to double by 2060. In 25% of patients MS is associated with the development of AF. Although new treatment approaches have emerged over the last years, AF is still associated with an increased risk of complications such as systemic thromboembolism, congestive heart failure (CHF), stroke, myocardial infarction (MI) and other. Thus, AF poses both social and economic problem for healthcare in the most countries due to significant treatment expenses. In the following review article we analyze the existing approaches to prevent AF in patients with MS depending on the initial risk of its development.

**Keywords:** metabolic syndrome, primary prevention of atrial fibrillation