

Ischemic Events and Intracranial Hemorrhage in a Real-world Atrial Fibrillation Population. Data from the Udine Stroke Registry

G. Merlino, M. Rana, I. Cancelli, R. Marinig, P. Piersante, S. Naliato, R. Eleopra
Stroke Unit, S. Maria della Misericordia, Udine University Hospital

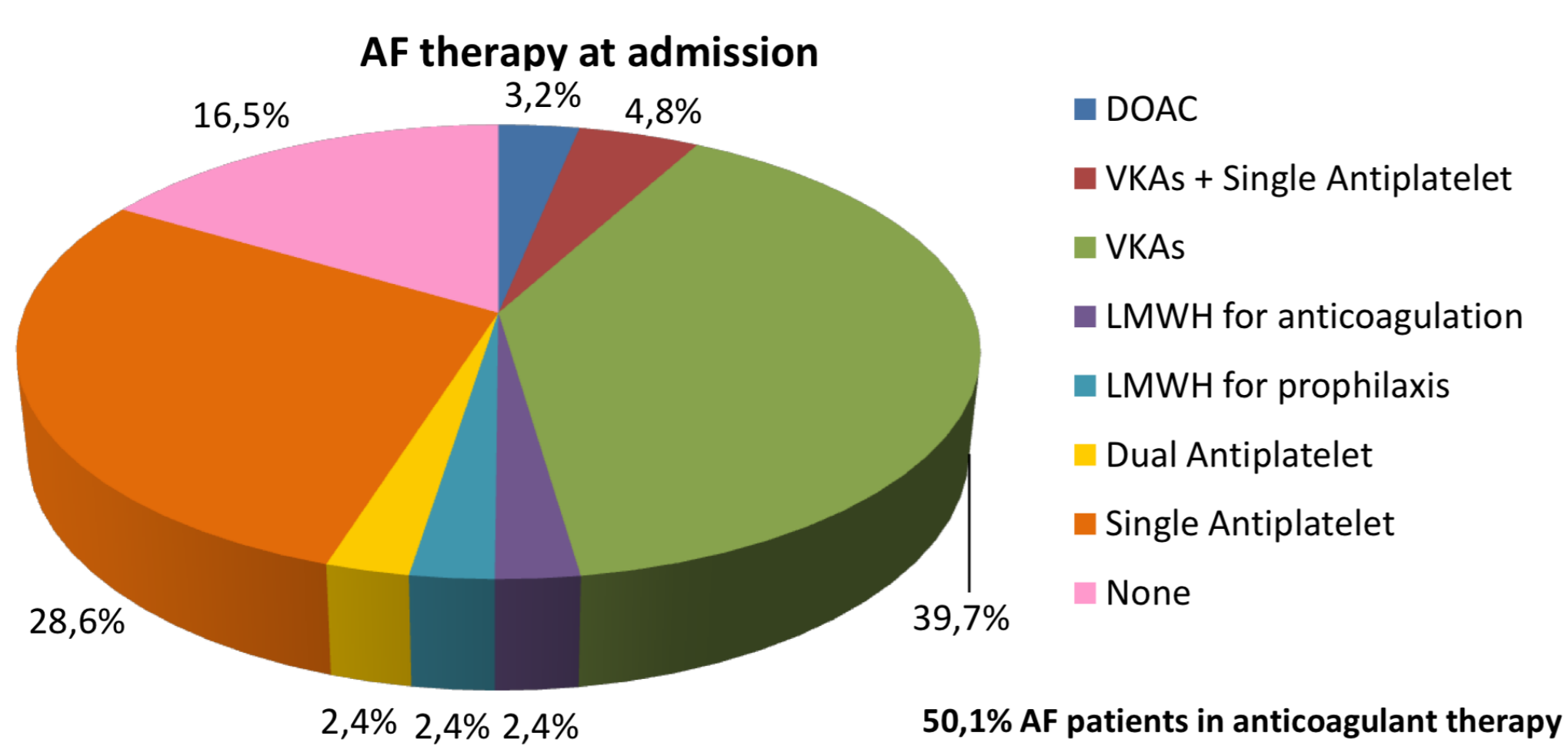
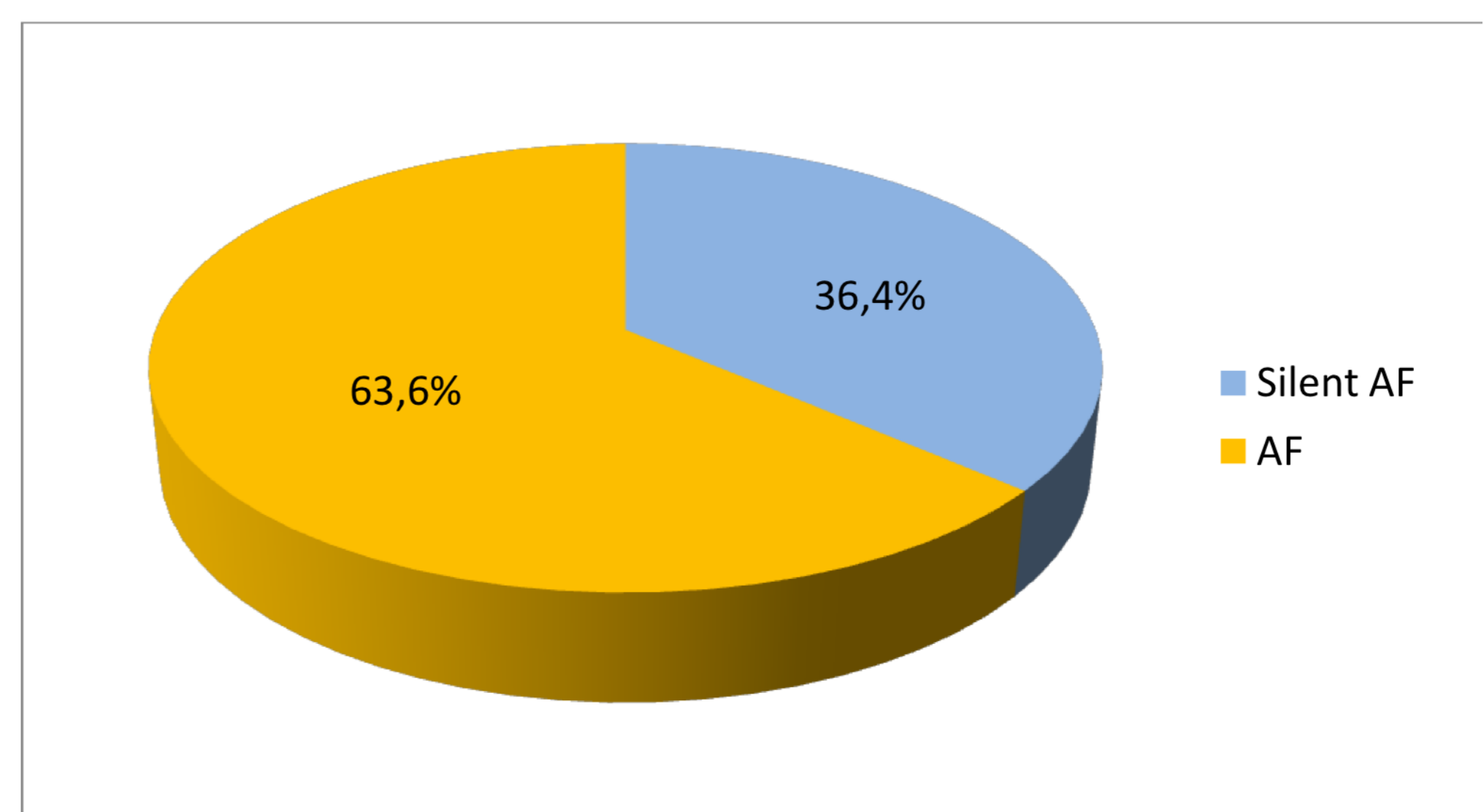
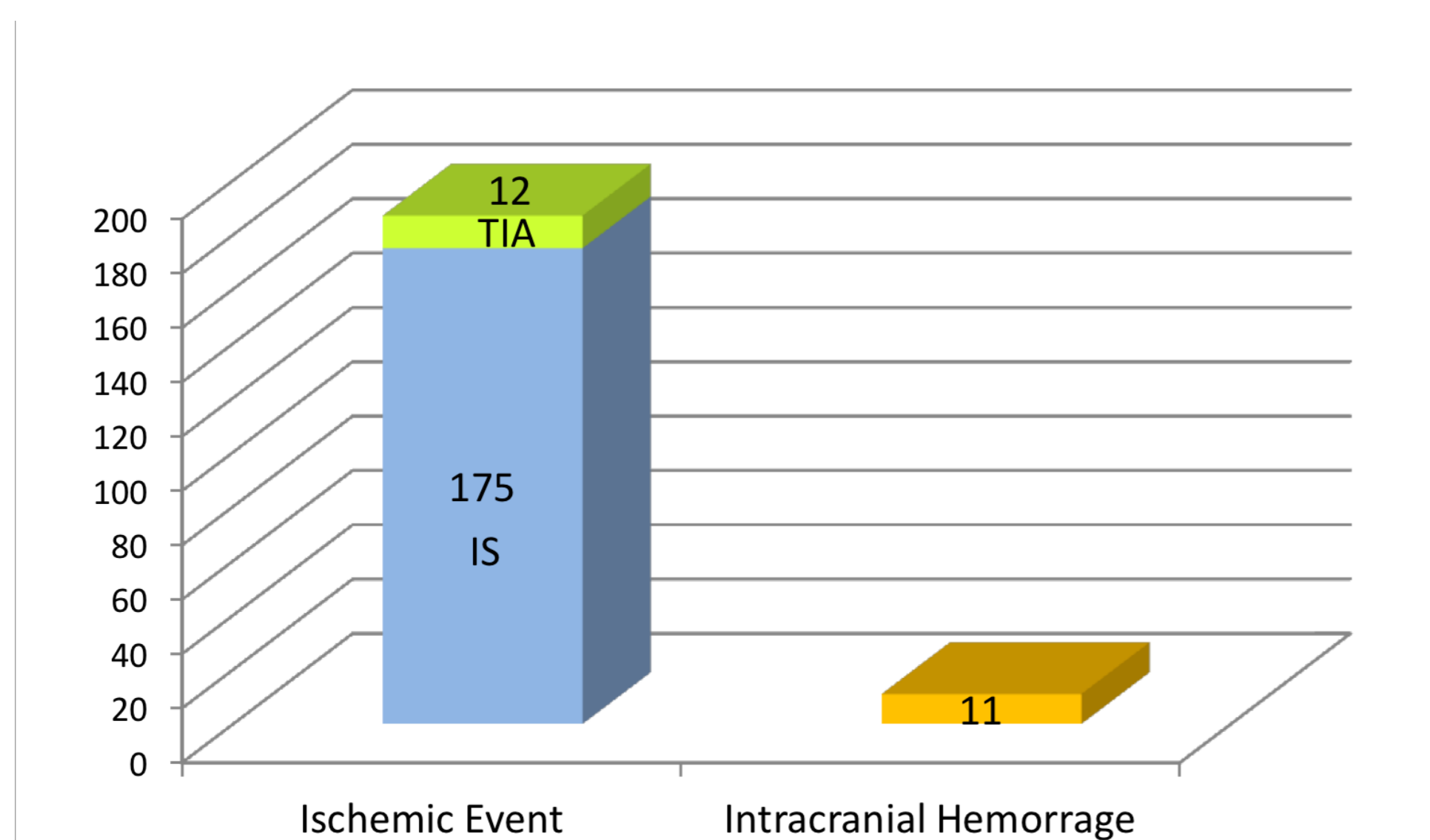
Objectives

Ischemic Events (IE) and Intracranial Hemorrhage (ICH) are feared complications of Atrial Fibrillation (AF) and of antithrombotic therapy taken by AF patients. Even if oral anticoagulant treatment with Vitamin K Antagonists (VKAs) is extremely effective in reducing the risk for AF-associated stroke, its use remains underused in clinical practice or not adequately monitored and, consequently, ineffective and dangerous. Novel Oral Anticoagulants (NOACs) represent a first-line treatment for prevention of IE in non-valvular AF. This study aimed at evaluating the management of AF therapy and investigating the AF complications in a cohort of patients admitted in our Neurological Department (ND) for IE or ICH. Moreover, the long-term effects of antithrombotic therapy on mortality in IE patients were calculated.

Materials and Methods

This study is based on the Udine stroke registry. From January 2015 to May 2016, all patients admitted to our ND with IE or ICH were included in the study if AF was present at admission, there was a known diagnosis of paroxysmal AF preadmission, or AF was detected after hospitalization. Baseline demographics and INR values at admission in patients already treated with VKAs were collected. The CHA2DS2-VASc score was calculated at admission. The NIHSS score was calculated at admission and at discharge. Patients with IE were followed for at least 3 months to monitor the antithrombotic therapy and the mortality.

Results



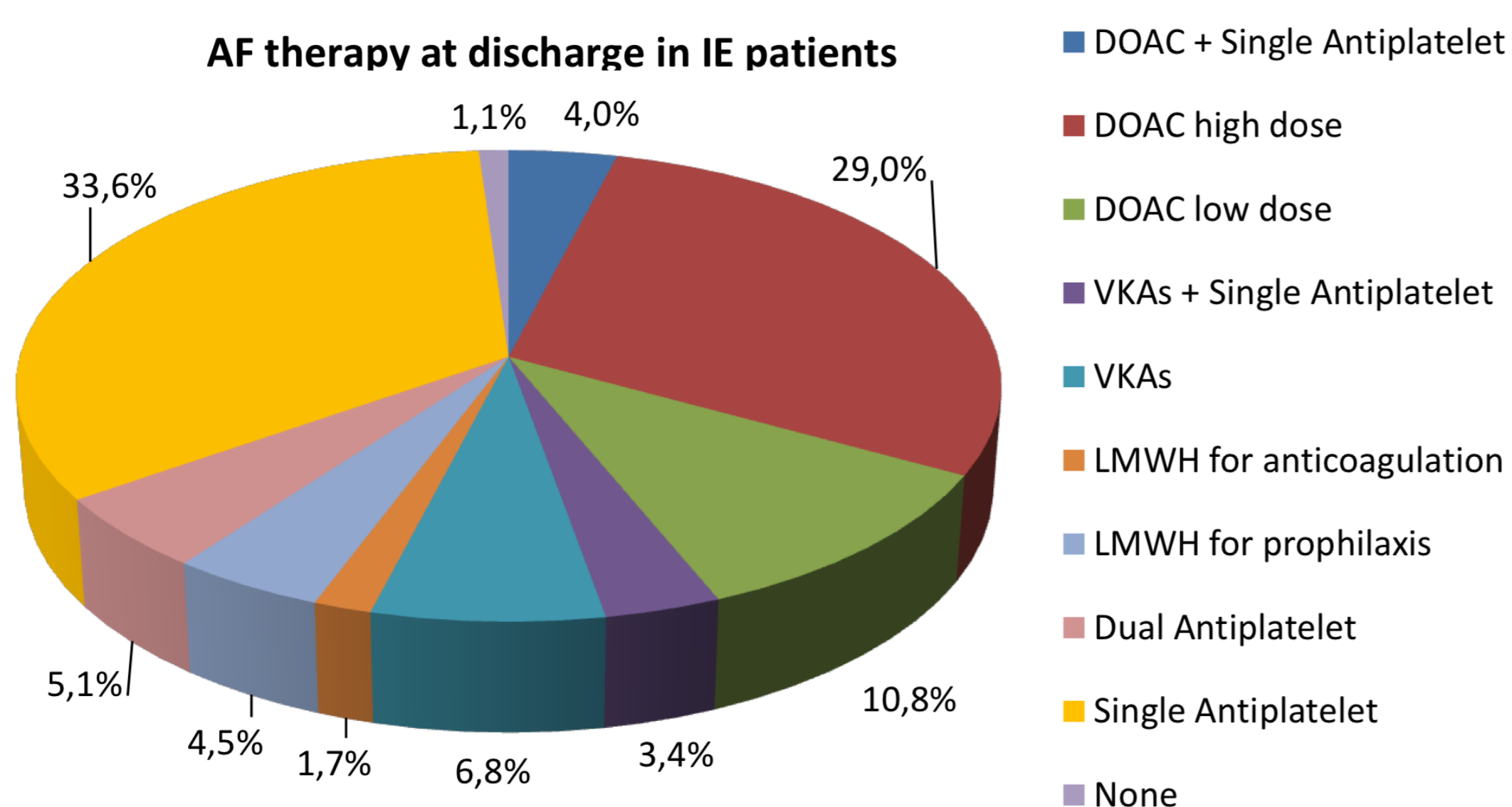
More than half (53%) of the IE patients treated with VKAs had an INR value less than 2.

The mean INR value in ICH patients treated with VKAs was 2.4 ± 0.9 .

CHA2DS2-VASc score was 3.4 ± 1.2 vs 3.3 ± 1.4 in patients with and without anticoagulant treatment at admission ($p = 0.2$).

NIHSS score was 9.8 ± 8.1 vs 8.6 ± 7.5 in patients with and without anticoagulant treatment at admission ($p = 0.3$).

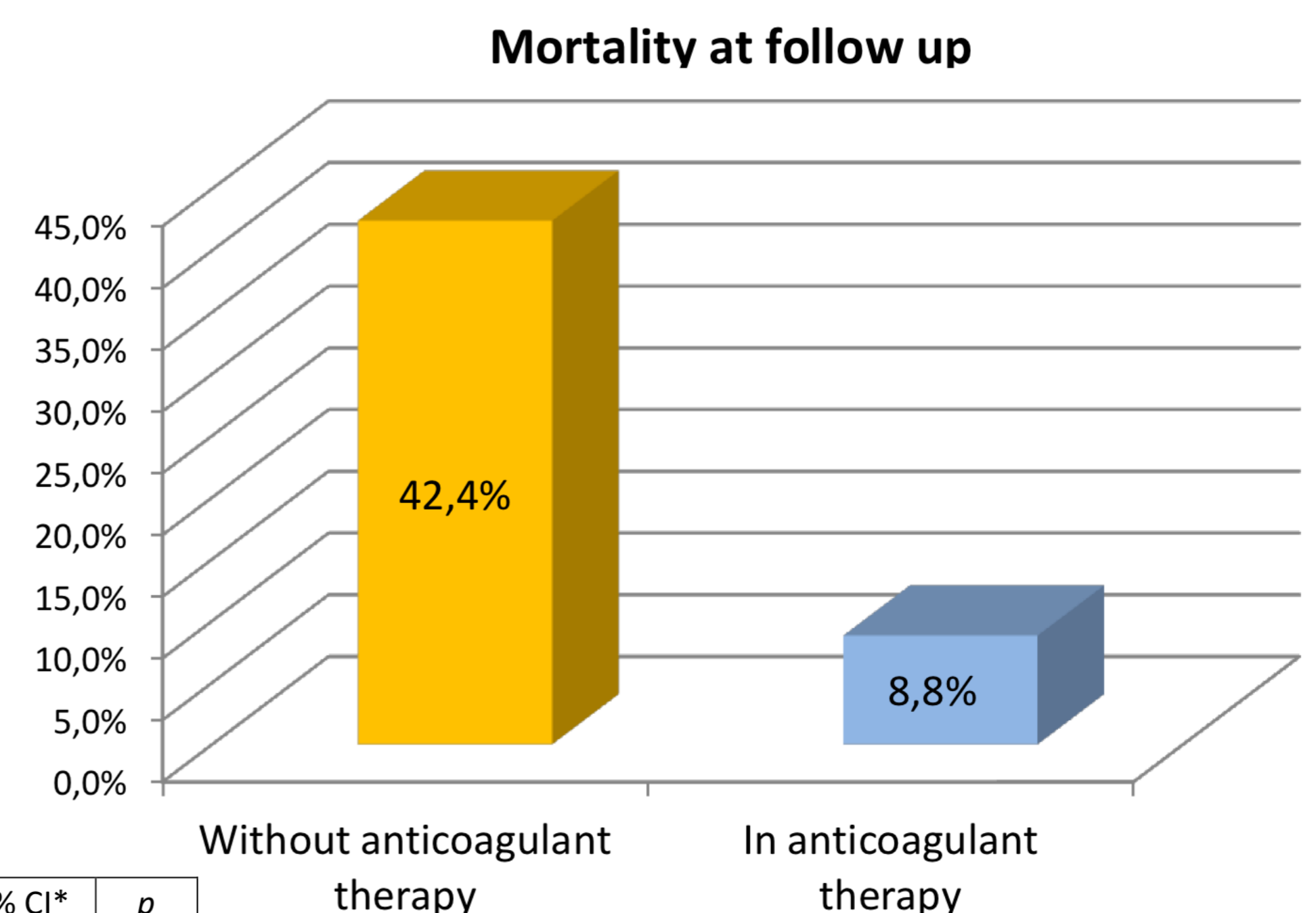
The antithrombotic therapy at admission did not affect in hospital mortality (11 patients died with IS and 3 with ICH).



At discharge the NIHSS score was significantly higher in IE patients who did not start anticoagulant treatment than in those who started it (8.4 ± 7.6 vs 2.1 ± 4.3 , $p = 0.001$).

Although anticoagulants were recommended in all AF with IE events, at follow-up 33 of them did not start the treatment.

Mortality was significantly lower in patients with anticoagulants than in those without this treatment ($p = 0.001$).



	OR*	95% CI*	p
In anticoagulant therapy			
Yes*	1.0		
No	6.2	1.9 - 19.8	0.001
NIHSS at discharge	1.03	0.9 - 1.1	0.3

*OR and CI95 calculated using multivariate logistic regression

* Reference category

Conclusions

Although international guidelines recommend using oral anticoagulants in AF patients, this therapeutic approach remains largely underused or inappropriately used with subtherapeutic INRs in our sample. As a consequence, IE and ICH are frequent complications of AF. In order to reduce mortality in AF patients affected by IE events, anticoagulants should represent the only therapeutic approach.