EDITORIAL

Target oral anticoagulant therapy in AF patients at high risk

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ALMOST 50% OF ATRIAL FIBRILLATION (AF) PATIENTS AT VERY LOW THROMBOEMBOLIC RISK ARE TREATED with oral anticoagulants (OACs) contrary to guideline recommendations, a large global study has found.[1]

The timely introduction of OAC therapy can significantly reduce the risk of thromboembolism in AF. Furthermore, the advent of the direct oral anticoagulants (DOACs) has made anticoagulation simpler and more straightforward for both patients and healthcare providers.

Guidelines advocate the use of risk scores such as CHA_2DS_2-VASc to decide who is likely to benefit most from OACs and which patients can be safely managed without. The current guidelines advise OACs for those at high risk of thromboembolism (CHA_2DS_2-VASc score ≥ 2 in men and ≥ 3 in women) but not for the very low-risk population (score of 0 in men and 1 in women), as the bleeding risk may potentially outweigh the possible benefits of reducing thromboembolic risk. The intermediate score group (1 for men and 2 for women) can be anticoagulated depending on clinical judgement.

GARFIELD-AF was a large, prospective, observational, worldwide cohort of newly diagnosed patients with non-valvular AF. A total of 52,080 participants were recruited from 1,215 sites in 35 countries, including the UK, between March 2010 and August 2016.

This new study explored the reasons for, and impact of, OACs in patients with AF at very low thromboembolic risk (CHA_2DS_2-VASc score 0 in men or 1 in women) from the GARFIELD-AF trial. In the current analysis, there were 2,224 patients taken from the entire GARFIELD-AF population; 1,461 men with a score of 0 and 763 women with a score of 1. Of these, 985 (44%) received an OAC; 497 a vitamin K antagonist and 488 a DOAC.

Baseline characteristics according to OAC use were evaluated by logistic regression analysis. Non-haemorrhagic stroke or systemic embolism, major bleeding, cardiovascular and all-cause mortality were compared.

Importantly there were few thromboembolic events in this group regardless of OAC use which confirms their low risk status. Six patients prescribed OACs suffered non-haemorrhagic stroke or systemic embolism compared with seven who did not receive the drugs. Fortunately, bleeding events were also very low regardless of OAC use; four patients on OACs and four not receiving the drugs had major bleeding.

Incidence rates per 100 person-years over two years in patients on OACs compared with those who were not:

- Non-haemorrhagic stroke or systemic embolism 0.32 (95% CI: 0.14-0.71) vs 0.30 (95% CI: 0.14-0.63)
- Major bleeding 0.21 (95% CI: 0.08-0.57) vs 0.17 (95% CI: 0.06-0.46)
- Cardiovascular mortality 0.26 (95% CI: 0.11-0.64) vs 0.26 (95% CI: 0.12-0.57)
- All-cause mortality 0.74 (95% CI: 0.44-1.25) vs 0.99 (95% CI: 0.66-1.49)

'Almost 50% of AF patients at very low thromboembolic risk are treated with oral anticoagulants contrary to guideline recommendations'

Increasing age up to 65 years, OR 1.31 (95% CI: 1.19-1.44) and persistent AF, OR 3.25 (95% CI: 2.44-4.34) or permanent AF, OR 2.29 (95% CI: 1.59-3.30) versus paroxysmal/unclassified AF were associated with OAC use.

Antiplatelet therapy was inversely associated with OAC use, OR 0.21 (95% CI: 0.17-0.27).

The study authors state: 'Almost half of the patients with a CHA_2DS_2-VASc score equal to 0 (men) or 1 (women) received OACs. This contrasts with current guidelines recommending against treating patients with AF at very low thromboembolic risk with OACs.

'Persistent or permanent AF and increasing age < 65 years were associated with OAC therapy in patients with AF at very low thromboembolic risk. The justification for OAC use in such patients was not well founded and the decision to use OACs was based on factors beyond those in guideline-recommended risk prediction tools such as the CHA_2DS_2-VASc.'

'These findings prompt additional investigations into clinical decision-making for patients with AF at very low thromboembolic risk,' they add.

This study highlights the importance of following current guidelines to target OAC therapy to those who will benefit the most rather than using a blanket approach to anticoagulation in patients with AF.

REFERENCE
1 Verbrugge FH, Martin A-C, Siegal D et al. Impact of oral anticoagulation in patients with atrial fibrillation at very low thromboembolic risk. *Heart* Epub ahead of print: 05 December 2019. doi: 10.1136/heartjnl-2019-315873