Focus on different aspects of atrial fibrillation

Stefan Agewall

Editor-in-Chief, Oslo University Hospital Ullevål and Institute of Clinical Sciences, University of Oslo, Oslo, Norway

In this issue of the journal, we focus on different aspects of atrial fibrillation (AF). Data from epidemiological cohorts support the role of obesity as an independent risk factor for AF. In a meta-analysis, Dr Thangjui and co-workers from the United States have assessed the efficacy and safety of direct oral anticoagulants (DOACs) compared with vitamin K antagonists (VKAs) in morbidly obese patients with AF. They found that obese patients with AF who used DOACs had lower risk of stroke and similar major bleeding risk compared with non-obese patients. In the obese group of patients, use of a DOAC was not statistically different from use of a VKA in reducing stroke, but major bleeding risk was lower in the DOAC group.

Patients with liver disease, concomitant with AF, carry a significantly higher risk for all clinical outcomes. Dr Chen from Germany sought to evaluate the efficacy/safety of different anticoagulants, i.e. VKAs and non-VKA oral anticoagulants (DOACs), in such a patient group. A total of 20,042 patients’ data were analysed. Compared with non-anticoagulants, VKAs seemed to reduce the risk of ischaemic stroke/thromboembolism (IS/TE) but heighten the risk of all bleeding events. DOACs have a similar effect in reducing the risk of IS/TE and have a significantly lower risk of major bleeding compared with VKAs. DOACs seem to be associated with better clinical outcome than VKAs in patients with mild to moderate liver disease in this study.

In a study from Taiwan, Hu et al. explored the associations of weekend and weekday admission with clinical events among heart failure (HF) patients with and without comorbid AF. The authors recruited 57,919 HF patients who were hospitalized on weekends and 57,919 HF patients who were hospitalized on weekdays. There were 21,467 and 21,467 patients with AF in the case cohort and control cohort, respectively. They found that HF patients with AF hospitalized on weekends are at highest risk of HF recurrence among these four groups.

In a Danish registry study, Dr Binning and co-workers aimed to evaluate the risk of discontinuing treatment with DOACs among patients with atrial fibrillation (AF) according to cohabitation status and gender. They identified 32,364 patients with AF aged 40–90 years in treatment with DOACs. The authors found that the absolute 2-year risk of DOAC discontinuation was highest among men living alone. They concluded that male gender and living alone were associated with a higher risk of DOAC discontinuation among patients with AF.

Dronedarone reduces the risk of AF recurrence in patients with AF. However, in patients with chronic kidney disease (CKD) use of antiarrhythmic drugs (AADs) is a challenge. Vanos et al. have performed a post hoc analysis of the ATHENA study examining dronedarone efficacy and safety in individuals with AF/AFL and varying renal functionality. The authors concluded that dronedarone is an effective AAD in patients with AF/AFL and cardiovascular (CV) risk factors across a wide range of renal functions.

There are still concerns about the safety of digoxin therapy in AF. Dr Lip and co-workers aimed to evaluate the effects of digoxin over beta-blocker therapy in AF. They used the ESC-EHRA EORP-AF General Long-Term Registry. They reported that compared with beta-blockers, digoxin therapy was associated with increased all-cause mortality. However, in multivariable analysis, there were no differences in any of the outcomes between both groups after accounting for potential confounders. Therefore, the authors concluded that poor outcomes related to the use of digoxin over beta-blocker therapy in terms of excess mortality and reduced quality of life are secondary to the presence of risk factors other than digoxin per se.

In a review paper, Dr Capodanno and Dr Angiolillo provide an updated appraisal of the currently available evidence on the use of various oral antithrombotic agents for the prevention of IS and TIA.

Coronavirus disease 2019 (COVID-19) is caused by infection with severe acute respiratory syndrome coronavirus-2. COVID-19 is characterized by striking dysregulation of the immune system, with evidence of hyperinflammation, an impaired induction of interferons, and delayed adaptive immune responses. In a current opinion paper, Dr Sascha Goonewardena and co-workers discuss the immune-modulating and known pharmacologic properties of low-dose naltrexone.

Dr Wu and co-workers from China have investigated the effects of neuraminidase inhibitors (NIs) on COVID-19 in a retrospective study consisting of 3267 COVID-19 patients. The NI treatment
lowered the mortality rate and the critically ill conversion rate compared with those in the non-NI group when applying the multivariate Cox model for adjusting imbalanced confounding factors.

Population ageing has resulted in an increasing number of older people living with chronic diseases (multimorbidity) requiring five or more medications daily (polypharmacy). Ageing produces important changes in the CV system and represents the most potent single CV risk factor. In a review paper by the European Society of Cardiology Working Group on Cardiovascular Pharmacotherapy, Tamargo et al. analyse the main challenges confronting healthcare professionals when prescribing in older people with CVD, multimorbidity, and polypharmacy.

Recently, several studies highlighted potential safety issues, i.e., photosensitizing effects, associated with the use of thiazide diuretics and reported an increased risk of several types of skin cancer. In a review paper, Dr Götzinger and co-workers from Germany provide an overview of the prevalence, clinical manifestation, and management of adverse photoinduced skin reactions caused by frequently used CV drugs and to assess their potential relevance for skin cancer development.

**Conflict of interest:** None declared.

**References**