ICU
MANAGEMENT & PRACTICE

New ESC Guidelines for Atrial Fibrillation Published

The European Society of Cardiology (ESC) has published their new guidelines for the diagnosis and treatment of atrial fibrillation during its congress this year*. The recently released guidelines replace the recommendations of the Society, which were published in 2016.

One of the most interesting innovations is the approach towards characterization and holistic integrative management of atrial fibrillation under the guiding principle “From 5 domains to ABC approach”, which was presented by professor Greogory Lip. In summary, the following steps should be followed in the diagnosis and treatment of atrial fibrillation (CC):

- CONFIRM AF- Confirmation of atrial fibrillation (atrial fibrillation lasting more than 30 seconds on a 12-lead ECG)
- CHARACTERISE AF- Characterization of atrial fibrillation with determination of stroke risk, severity of symptoms, severity of patient limitations and underlying substrates such as age and comorbidities.

After CC determination, the ABC rule should be followed:

- Anticoagulation, prevention of stroke (compliance with CHA2DS2VASc and correct choice of anticoagulant drugs)
- Better symptom control (e.g. optimize the heart rate first)
- Comorbidities and cardiovascular risk factor management (management of underlying cardiovascular risk factors such as weight loss, regular exercise, reduction of alcohol consumption)

Another new addition is the super-selective ß1-receptor antagonist landiolol as a suitable IV drug for acute management of heart rate in atrial fibrillation. Landiolol has the highest cardio-selectivity among all drugs suitable for the acute management of supraventricular tachycardia (i.e. the ß1 to ß2 antagonizing ratio of landiolol is 250 to 1, which makes landiolol around 100 times more cardio-selective than commonly used IV betablockers).

Cardio-selectivity of an adrenergic receptor antagonist is essential, among other factors, to avoid undesirable effects that negatively influence cardiac output. It should be noted that the use of landiolol is equally suitable in the management of heart failure with reduced left ventricular ejection fraction as for those patients with an LVEF > 40%. On the other hand, amiodarone is only cited as ultima ratio with a recommendation class II b for rate control when other pharmacological or non-pharmacological interventions are not successful (in contrast to amiodarone, beta-blockers such as landiolol, have a recommendation class I). When amiodarone is administered intravenously, care must be taken as undesirable drop in blood pressure may occur. Thus, amiodarone may generally be considered for the chronic management of arrhythmias, while the safety/efficiency profile of this drug should be evaluated closely.

**2020 ESC Guidelines for the diagnosis and management of atrial fibrillation developed in collaboration with the European Association of Cardio-Thoracic Surgery (EACTS); Eur Heart J. 2020 Aug 29; doi: 10.1093/eurheartj/ehaa612. Online ahead of print*

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