

HFA DISCOVERIES

Orion Pharma session - 10th June 2020

Inotropes and Inodilators in Acute and Advanced Heart Failure

Questions	Answers
Is there any logical ground for initiating inotropes in the setting of HFrEF and acute ischemic liver damage due to congestion but without hemodynamic compromise ?	The answer varies according to which inotropic is discussed about. Very few data have been obtained for any inotropic in these settings. As an example, the use of levosimendan is contra-indicated in the setting of primary hepatic impairment since few regulatory data are available. However, in the setting of liver congestion due to ADHF, there is a sub-analysis of SURVIVE comparing levosimendan vs dobutamine which demonstrated more beneficial effect of levosimendan on markers of hepatic dysfunction. Moreover, levosimendan can improve right ventricular function which is responsible for peripheral congestion. Thus, in conclusion, levosimendan use should be considered in the cases with severe right ventricular dysfunction despite the hemodynamic status of pts - Prof. J. Parissis
In cardiogenic shock, it is well known problem with its staging recently published by SCAI, how do you perform hemodynamic diagnosis at your institution to stratify CG patient ot inotrope?	In order to select the proper inotropic or combinations of inotropes according to the stage of CS, it is necessary sometimes to perform right heart catheterization or to perform a comprehensive echo examination plus lung ultrasound. In the vasoconstrictive stage, we can use an inodilator in order to improve cardiac output due to vasodilation and enhancement of cardiac contractility. In the the vasodilatory stage, the first choice is a vasopressor like norepinephrine or combination of norepinephrine with dobutamine or levosimendan. Hemodynamic monitoring can also help us in order to wean from inotropic support - Prof. J. Parissis
Pin valvular stenosis dopamine decreased BP to zero	Severe valvular stenosis (mitral or aortic) is contra-indication for the use of inotropes or inodilators - Prof. J. Parissis
Do you still use Levosimendan if creatinine clearance is less than 30mL/min?	Although it is not recommended, we and others are using levosimendan down to a GFR as low as 20 mL/min/1.73 without problems - Prof. Gerhard Poelzl
Can we use levosimendan in hemodialysed patients?	This is not recommended. However, with good indication and adequate monitoring, levosimendan is possible in dialysis patients - Prof. Gerhard Poelzl
How effective is Levosimendan in the presence of structural remodeling?	Structural remodeling does not limit the effects of levosimendan - Prof. Gerhard Poelzl
Will cardiac myosin activators play a role in cardiogenic shock?	This class of drugs has a different mechanism of action from classical inotropes or levosimendan, prolonging ejection time and without causing tachycardia and hypotension. However, there are not RCTs investigating the hemodynamic effects of these drugs in pts with CS. They are promising drugs but we need evidence in this field - Prof. J. Parissis
If a HFrEF patient is on beta-blocker should one omit it during levosimendan treatment?	No, certainly not! This is one of the advantages of levosimendan that, in contrast to catecholamines, it also works in patients with beta-blocker - Prof. Gerhard Poelzl
Thoughts on omecamtiv mercabil?	This is still an open question, which will be answered by the GALACTIC-HF trial. Results will be available by the end of this year - Prof. Gerhard Poelzl
In advanced HF what BP accepted normal?	There is no exact blood pressure that is considered normal. As long as the patient feels comfortable and produces enough urine, low blood pressure is acceptable - Prof. Gerhard Poelzl
What about the use of Levosimendan in ischaemic heart failure which exhibit low ATP in the cell? Will the cardioprotective effect still be persist?	Thank you for your interesting question. The cardioprotective effects of levosimendan have been addressed in a number of previous preclinical and clinical studies, many of those included ischaemic conditions (for a review article on this, please visit: Journal of Cardiovascular Pharmacology, 2007, 50, 257-263). Collectively, earlier observations were concordant with levosimendan induced cardioprotection during myocardial ischaemia, where preservation of cardiac function was not limited by presumable reductions in intracellular ATP concentrations - Prof. Zoltán Papp