Heart failure

Due to various possible causes, blood moves through the heart and body at a slower rate, and pressure in the heart increases. As a result, the heart cannot pump enough oxygen and nutrients to meet the body's needs. The chambers of the heart may respond by stretching to hold more blood to pump through the body or by becoming stiff and thickened. This helps to keep the blood moving, but the heart muscle walls may eventually weaken and become unable to pump as efficiently. As a result, the kidneys may respond by causing the body to retain fluid (water) and salt. If fluid builds up in the arms, legs, ankles, feet, lungs, or other organs, the body becomes congested, and congestive heart failure is the term used to describe the condition.

Neurosurgery

- Prevalence, Pathophysiology, and Prognostic Importance of Malnutrition Risk in Early-Stage Patients With Heart Failure and Preserved Ejection Fraction
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- Characteristics and outcomes in patients with in-hospital stroke: Japan Stroke Data Bank
- Innovation under pressure: Managing a complex carotid-jugular fistula in a war-zone limited-resources area
- A prospective clinical trial predicting the 95% effective concentration of remifentanil for skull pin fixation using haemodynamic and surgical pleth index monitoring
- Management of non-Cardiac Organ Failure in cardiogenic shock
- Pathophysiological and Prognostic Importance of an ExtraCardiac Comorbidity Burden in Patients with Heart Failure with Preserved Ejection Fraction
- Alzheimer's Disease With Cardiac Transthyretin Amyloidosis: A Clinicopathological Study of Autopsy Cases

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Mitigation of cardiac autonomic dysregulation by neuromodulation technologies is emerging as a new therapeutic modality of heart failure (HF). This progress has necessitated the identification of a biomarker for the quantification of sympathovagal balance, the potential target of 'neuromodulation' strategies. The currently available autonomic nervous system assessment parameters do not truly reflect the sympathovagal balance of the ventricle. Protein kinase A (PKA) is an intracellular enzyme that plays a major role in the pathophysiology of functional and structural ventricular remodeling in HF. Interestingly, sympathetic and parasympathetic activations exert reciprocal influence on the activity of PKA [1)].

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Chakraborty P, Po SS, Yabluchanskiy A, Dasari TW. Protein kinase A: A potential marker of sympathovagal imbalance in heart failure. Life Sci. 2023 Sep 2:122069. doi: 10.1016/j.lfs.2023.122069. Epub ahead of print. PMID: 37666387.