Heart failure/Repetitorium

***Presumed terms** : myocardial contractility, blood pressure regulation.*

Acute failure

Acute failure (cardiogenic shock) – a sudden, so significant decrease in cardiac output that compensatory mechanisms do not guarantee survival. Immediate therapeutic intervention is necessary.

Causes

- Extreme changes in frequency (arrest, ventricular fibrillation);
- Significant decrease in contractility;
- Tamponade
- Sudden failure of the valvular apparatus (rupture of the papillary muscle);
- (Peripheral resistance - sudden increase, pulmonary embolism).

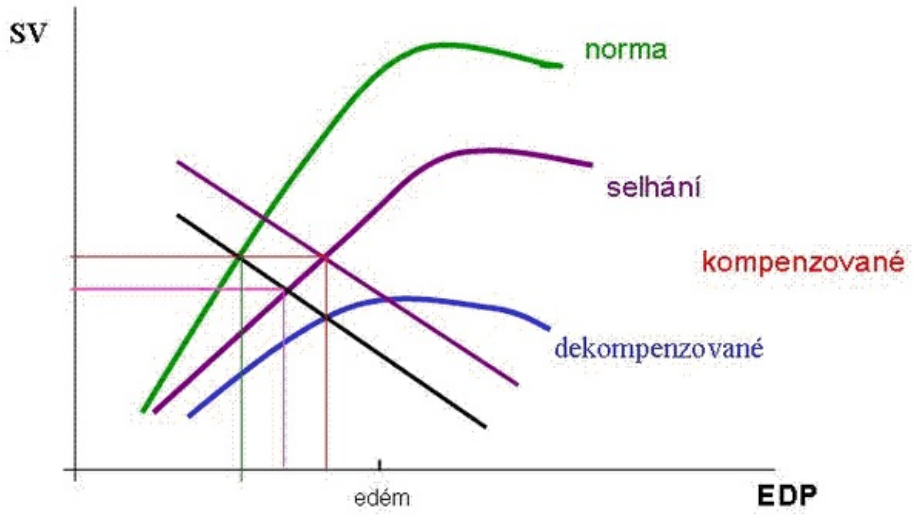
Chronic (fatigue) failure

Causes

- Hypertension – 49%;
- CHD – 29%;
- Diabetes – 9%;
- Valvular defects – 8%.

Consequences

All of the above causes result in a decrease in myocardial contractility, which further causes systolic dysfunction (decrease in Stroke Volume) and diastolic dysfunction (increase in End Diastolic Pressure).



Systolic dysfunction

- SO;
- BP;
- GFR;

→ retention of water and electrolytes, RAS.

Diastolic dysfunction

- EDP (ventricular compliance);

→ edema.

Molecular Mechanisms

- Energy;
- Ca 2+ ;
- Myocardial remodeling.

AP Propagation Faults

Principles of treatment

- Vasodilatation ;
- Cardiotonics ;
- Diuretics .

Heart failure with high cardiac output

Links

Related Articles

- Regulation of blood pressure

External links

Source

- VÍZEK, Martin. *Repetitorium* [online]. [cit. 2011-11-13]. <https://web.archive.org/web/20130512032641/http://pf.lf2.cuni.cz/vyuka/repetitorium.html>.

References

Reference

Recommended Reading