Isoprenaline

Isoprenaline is a non-selective β-receptor agonist with effects similar to adrenaline.

Effects

File:Isoprenaline.PNG
Isoprenaline

- stimulation of β1-adrenergic and β2-adrenergic receptors
- increase in strength of myocardial contraction (positive inotropic effect)
- significant increase in heart rate
- vasodilatation in the pulmonary vascular bed without affecting the flow through the renal and mesenteric vascular bed

Side effects result from the mechanism of action – an increase in heart rate with a decrease in the availability of oxygen to the myocardium, a proarrhythmogenic effect.

Indication

- during circulatory collapse (shock) with a decrease in cardiac output and an increase in central venous pressure
- prevention of brochospasm and pulmonary hypertension during anesthesia
- in the treatment of permanent bradycardia, conduction disorders - AV blockade, until the introduction of cardiac stimulation
- therapy Adams-Stokes syndrome

Contraindications

- sinus tachycardia higher than 130/min
- atrial and ventricular hyperexcitation
- digitalis intoxication
- acute coronary insufficiency, acute myocardial infarction - except in the case of simultaneous AV block with extreme bradycardia
- simultaneous administration with adrenaline is contraindicated

Links

Related Articles

- Sympathomimetics
- Adrenaline

References

- LINCOVÁ, Dagmar – FARGHALI, Hassan, et al. *Basic and applied pharmacology.* 2. edition. Prague : Galen, 2007. 672 pp. pp. 90–96. ISBN 978-80-7262-373-0.