

Digital Health TV

Relaxin and Heart Failure

There is a distinction between “systolic heart failure” (heart failure with reduced ejection fraction, HFrEF) and “diastolic heart failure” – heart failure with preserved ejection fraction, HFpEF. Systolic heart failure is often caused by long-term high blood pressure, etc., and there is medication available to treat this illness. Diastolic heart failure is due to long-term inflammation processes in the body. The heart muscle stiffens and becomes scarred, which causes the heart to fill and the vessels to conduct blood less easily.

A growing number of people are becoming ill - on the one hand because of higher life expectancy (10% of people over 70 suffer from heart failure), and on the other hand because of lifestyle factors such as too little exercise, obesity, smoking and a rich diet.

In the late 90ies. we found that in human heart failure, the body produces relaxin itself to compensate for the weakness and there are elevated relaxin levels in blood. The idea was soon to give relaxin therapeutically to reduce inflammation, reverse scarring and stiffening and improve impaired cardio-vascular function.

As HFpEF treatment, relaxin regulates the heart and circulation, influences connective tissue and down-regulates inflammation. Relaxin has this broad spectrum of action in metabolic regulation because it acts through multiple receptors.

We are therefore currently planning a clinical trial in heart failure with preserved ejection fraction. Other clinical developments include pre-diabetes, certain skin diseases and applications in transplantation medicine.