

# Benefit of ARNi in patient with HFrEF and COPD— case report

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### Introduction

ARNi is a drug specifically designed to treat heart failure and it consists of two components:

- an angiotensin receptor blocker (Valsartan) and
- a neprilysin inhibitor (Sacubitril).

ARNi is currently used for the treatment of patients with heart failure with reduced ejection fraction.



## Case presentation

- 61y.o. man, who came to our clinic for yearly follow up.
- previously been treated for CAD, had coronary angiography with subsequent PCI (Coro: LAD prox 40%, mid 85% -> DIRECT stent LADmid)
- Past diseases: COPD and DM type 2
- •On his yearly follow up he had clinical symptoms of heart failure, that was confirmed with echocardiography (EF- 38%) and was immediately treated with medication for heart failure with reduced ejection fraction according the latest guidelines (including ARNi and sodium-glucose co-transporter SGLT-2)



- echocardiography (1 year after PCI)
  Ao 36, LA 44, LVDd 54, LVDs 40, EF-38%
  hypokinesis of anterior and mid third of IVS
- carotid arteries normal doppler signal in the both carotid arteries



#### Treatment

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Th/
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- Tbl. Carvedilol a 12,5mg 2x1
- Tbl. Sacubitril/Valsartan a 24/26mg 1x1
- Tbl. Furosemide a 500mg 1x1/4
- Tbl. Spironolactone a 50mg 1x1
- Tbl. ASA a 100mg 1x1
- Tbl. Rosuvastatin a 20mg 1x1
- Tbl. Empagliflozine a 10mg 1x1



## Follow up

• 4 months after the initial treatment for heart failure, patient had improved ejection fraction (50%) with no persistent clinical symptoms of heart failure!

Ao 36, LA 42, LVDd 54, LVDs 39, EF-50% hypokinesis of anterior and mid third of IVS (improved kinetics compared with previous echocardiography)

 carotid arteries - normal doppler signal in the both carotid arteries



# Therapy (continued)

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Th/
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- Tbl. Carvedilol a 12,5mg 2x1
- Tbl. Sacubitril/Valsartan a 24/26mg 1x1
- Tbl. Furosemide a 40mg 1x1
- Tbl. Spironolactone a 25mg 1x1
- Tbl. ASA a 100mg 1x1
- Tbl. Rosuvastatin a 20mg 1x1
- Tbl. Empagliflozine a 10mg 1x1



## Conclusion

The use of ARNi in patients with heart failure with reduced ejection fraction, along with the other medications as per treatment guidelines, improves the ejection fraction and relives symptoms of heart failure.





Thank You for the Attention!