# Mineralocorticoid Receptor Antagonism in Acutely Decompensated Chronic Heart Failure

João Pedro Ferreira, MD[1], Mário Santos, MD[1], Sofia Almeida, PhD[2], Irene Marques, MD[1], Paulo Bettencourt, MD, PhD[3], Henrique Carvalho, MD, PhD[1]

*[1]Centro Hospitalar do Porto, [2]Faculdade de Ciências, Universidade de Lisboa, [3]Centro Hospitalar de São João*

# Mineralocorticoid Receptor Antagonism in Acutely Decompensated Chronic Heart Failure

***Introduction***

- MRAs use in ADCHF may improve congestion through diuretic effect and prevent neurohormonal activation
- The impact of MRAs in ADCHF patients has not been well-studied
- We aimed to evaluate the clinical effect and safety of spironolactone in ADCHF

# Mineralocorticoid Receptor Antagonism in Acutely Decompensated Chronic Heart Failure

***Methods***

- Prospective, experimental, single-centre, and single-blinded trial
- Patients were non-randomly assigned to standard ADCHF therapy or oral spironolactone 50 -100 mg/d plus standard ADCHF therapy

# Mineralocorticoid Receptor Antagonism in Acutely Decompensated Chronic Heart Failure

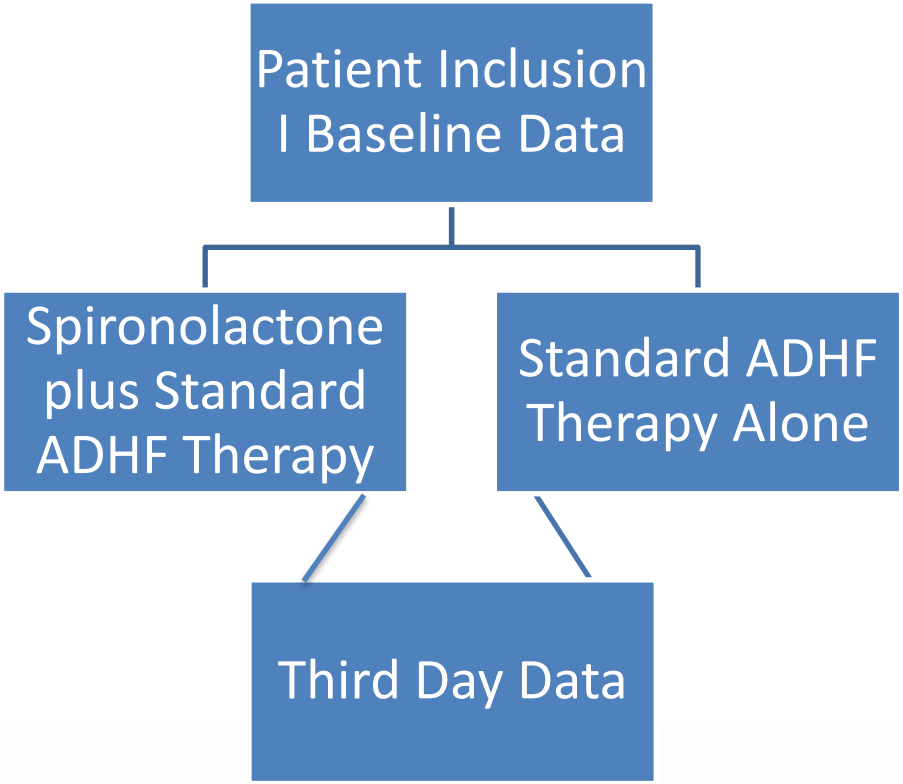
***Methods***

- Major Exclusion Criteria:

✓ Plasma Creatinine > 1,5 mg/dL
✓ Serum Potassium > 5,5 mmol/L
✓ Sepsis

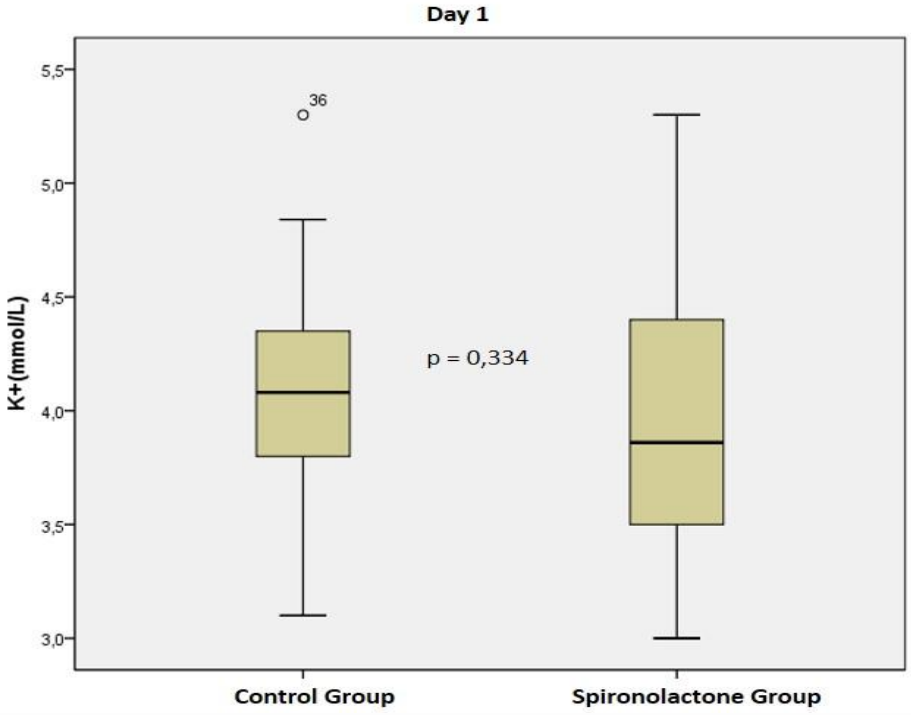
# Mineralocorticoid Receptor Antagonism in Acutely Decompensated Chronic Heart Failure

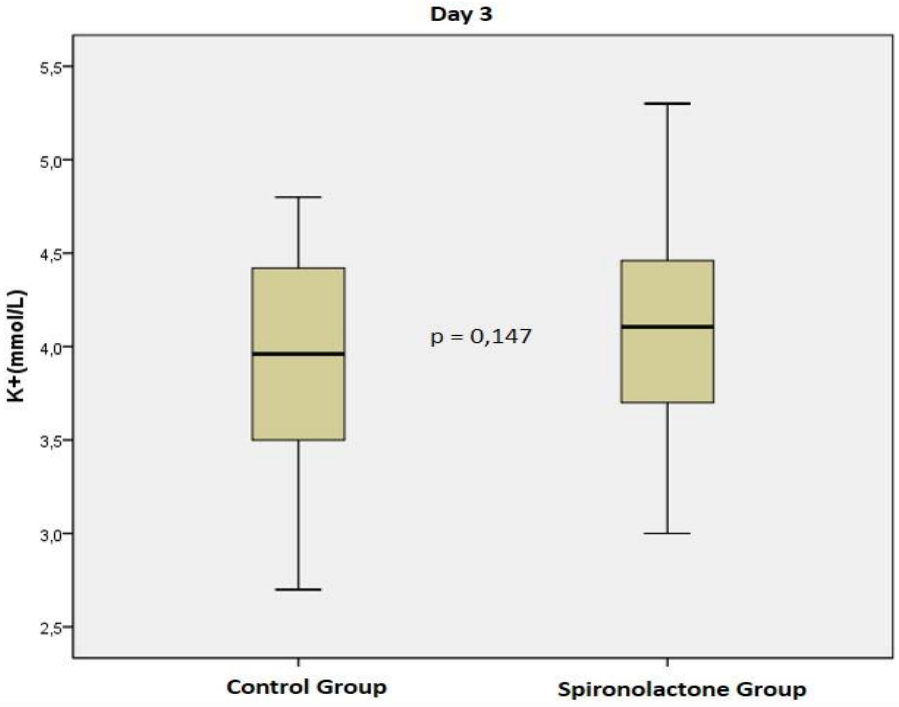
***Methods***



# Mineralocorticoid Receptor Antagonism in Acutely Decompensated Chronic Heart Failure

## *Results*

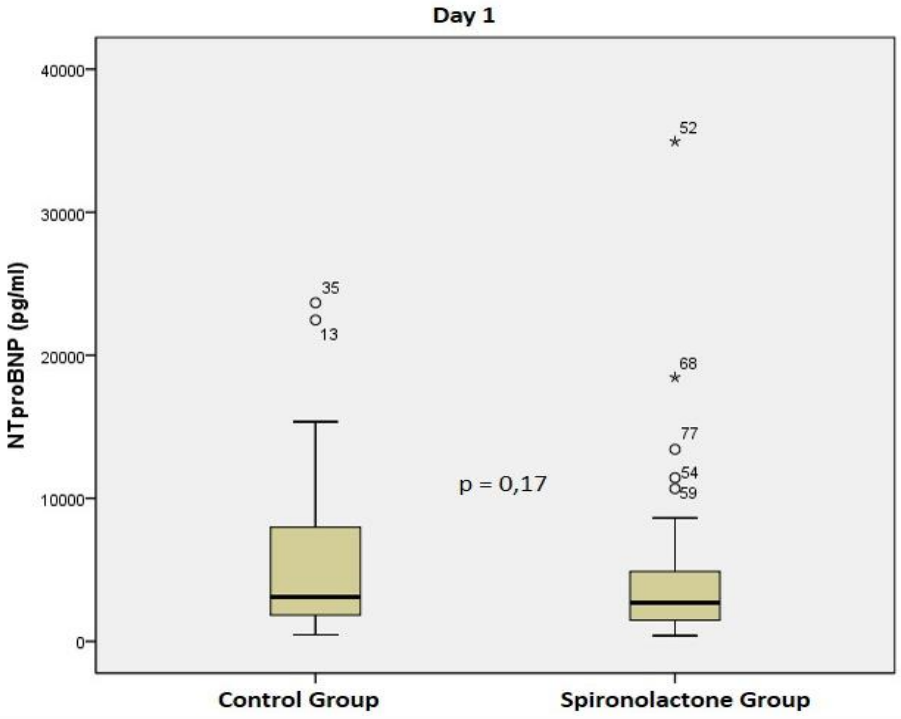


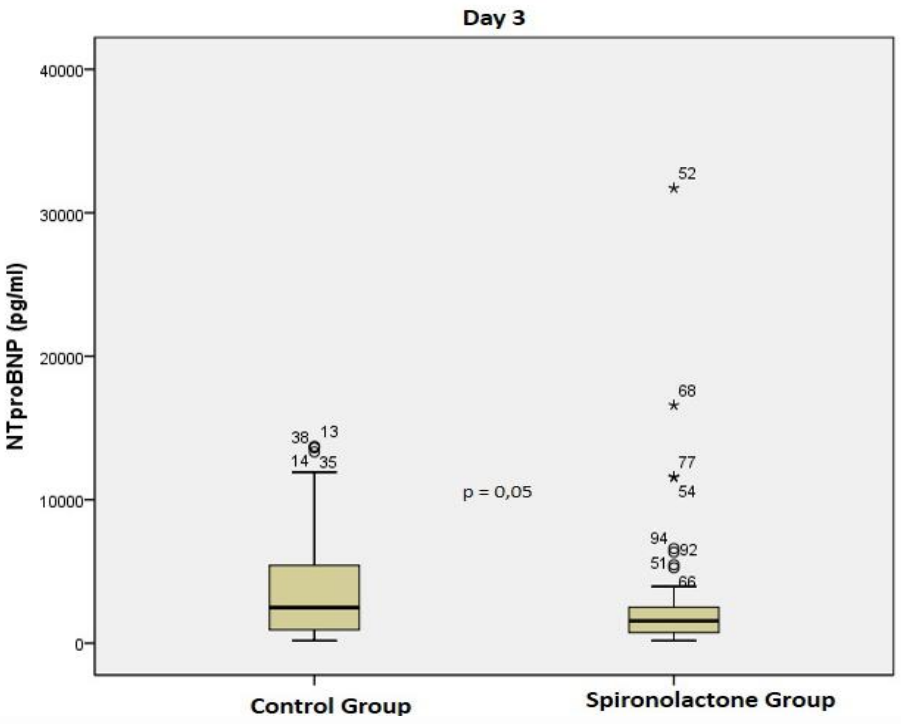




No diferences on plasma potassium between groups

# Mineralocorticoid Receptor Antagonism in Acutely Decompensated Chronic Heart Failure

## *Results*

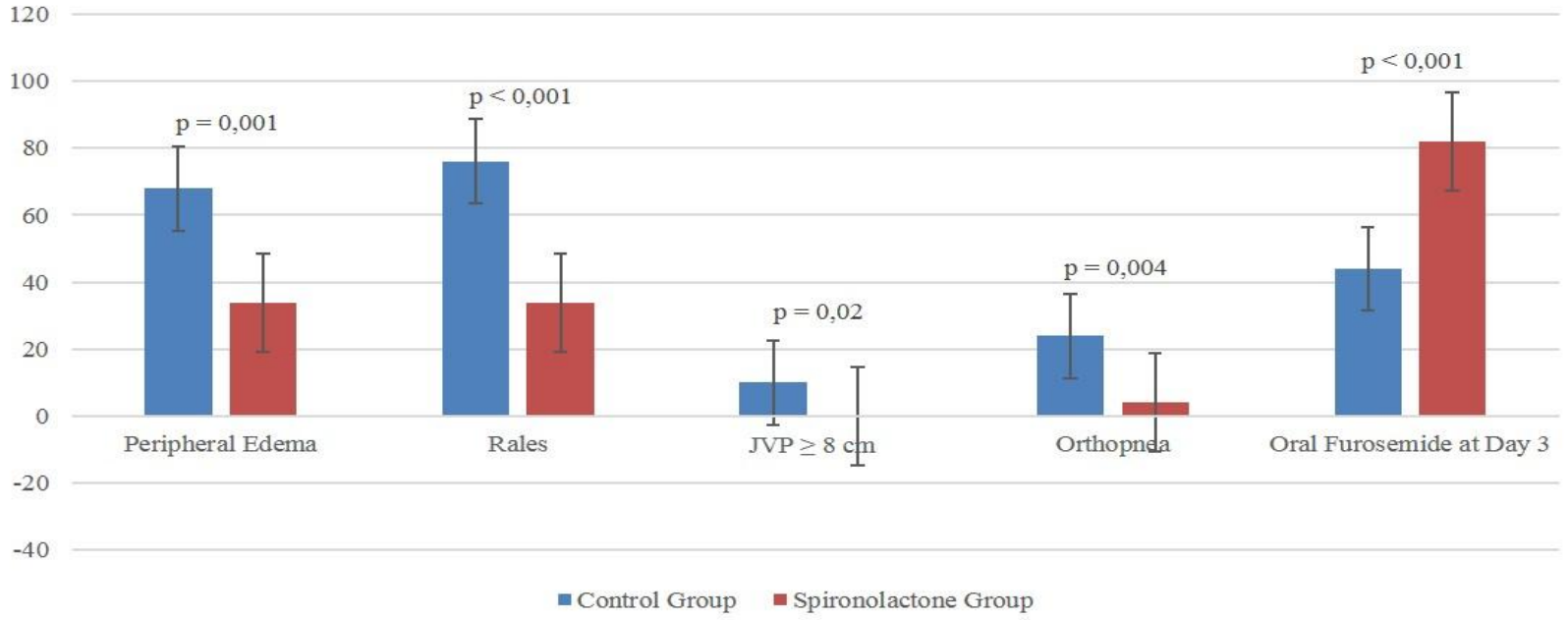



Greater NT-proBNP reduction on Spironolactone group

# Mineralocorticoid Receptor Antagonism in Acutely Decompensated Chronic Heart Failure

## *Results*




Greater proportion of patient free of congestion on Spironolactone group

# Mineralocorticoid Receptor Antagonism in Acutely Decompensated Chronic Heart Failure

## *Conclusion*

- Our study supports the safety of high dose spironolactone in ADCHF and suggests a positive impact in the resolution of congestion.
- The important findings of our pilot study need to be confirmed in larger trials

# Mineralocorticoid Receptor Antagonism in Acutely Decompensated Chronic Heart Failure

***Limitations***

1) No randomization or concealed allocation was performed, we cannot exclude a selection bias

2) The assistant physicians performed the congestive signs assessment, therefore, we cannot exclude an ascertainment bias

3) Our study was underpowered to detect the differences of the expected low rate of adverse events between groups