5as. JORNADAS DE INICIAÇÃO À INVESTIGAÇÃO CLÍNICA

Centro Hospitalar do Porto, 28 de Junho de 2013

_____

Poster 6. TAILORING DIURETIC THERAPY IN ACUTE HEART FAILURE: INSIGHT ON EARLY DIURETIC RESPONSE PREDICTORS.

Autores: _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]_

Afiliações: [1]Centro Hospitalar do Porto (CHP), Porto, Portugal; [2]Climate Change Impacts, Adaptation and Mitigation Research Group (CC-IAM), Faculdade de Ciências, Universidade de Lisboa (FCUL), Lisboa, Portugal; [3]Centro Hospitalar de São João (CHSJ), Porto, Portugal

Contatos: _João Pedro Ferreira_, médico interno de Medicina Interna do CHP, aluno de doutoramento do ICBAS/UP e do CHP: jp7ferreira@hotmail.com

INTRODUCTION: Few data exist to help physicians how to use diuretics to provide the greatest symptomatic benefit with the least adverse effect and to select which subset of patients require a more aggressive diuretic strategy and monitorization.

OBJECTIVES: The aim of this study is to identify early predictors of diuretic response in a selected group of patients with acutely decompensated chronic heart failure (ADCHF).

MATERIAL AND METHODS: Observational, prospective study including 100 patients with ADCHF.

RESULTS: Mean ± standard deviation (SD) age was 76,0 ± 10,9 years. Sixty-one patients were female. Due to the persistence of congestive signs after three days of inpatient treatment, 16 (16%) patients maintained or increased i.v. furosemide dose (slow diuretic response, SDR) during the study period. The other 84 patients had greater congestion relief and decreased i.v. furosemide dose or switched furosemide to oral route (fast diuretic response, FDR). Admission day factors predicting SDR were: higher levels of pUr (mean ± SD, 69,6 ± 20,9 vs 52,5 ± 19,8, p = 0,002); higher levels of pUr / pCr ratio (mean ± SD, 58,3 ± 15,2 vs 49,6 ± 15,1, p = 0,036); higher levels of albuminuria (median [IQR], 131,5 [396,9] vs 47,1 [143,6], p = 0,011); higher levels of RDW (median [IQR], 16,0 [1,9] vs 15,1 [1,5], p = 0,039); lower levels of HgB (mean ± SD, 11,5 ± 1,8 vs 12,6 ± 2,1, p = 0,04); and higher levels of hsTnT (median [IQR], 0,05 [0,05] vs 0,03 [0,03], p = 0,026). By multivariate analysis the strongest independent early predictors of SDR were: pUr (OR [$_{95\%}$CI], 1,04 [1,01 – 1,07], p = 0,006), and red-cell distribution width (RDW) (OR [$_{95\%}$CI], 1,47 [1,07 – 2,02], p = 0,018). During the first three days of hospitalisation the strongest independent factor associated with SDR was NTProBNP decrease by less than 30% or increase from day 1 to day 3 (OR [$_{95\%}$CI], 4,84 [1,14 – 20,55], p = 0,032). Use of high dose spironolactone is associated with FDR (OR [$_{95\%}$CI], 0,17 [0,03 – 0,85], p = 0,031).

CONCLUSIONS: High RDW and high levels of pUr at admission are strong predictors of slower diuretic response. No change or increase in NTproBNP in the first three days of treatment is associated with slower diuretic response. On the other hand, the use of high dose spironolactone is associated with faster diuretic response.