

# NT-proBNP as a Diagnostic Marker in CCF

Dr. Vedavathi R.<sup>1</sup>

<sup>1</sup> KEMPEGOWDA INSTITUTE OF MEDICAL SCIENCES, BANGALORE.

*Received: 10 December 2015 Accepted: 3 January 2016 Published: 15 January 2016*

---

## Abstract

Introduction-? Heart failure prevalence is raising throughout the world.? The overall prevalence of HF is thought to be increasing because current therapies for cardiac disorders, such as Myocardial Infarction (MI), Valvular Heart Disease, and Arrhythmias, are allowing patients to survive longer. ? American Heart Association (AHA) guidelines define HF as a "Complex clinical syndrome that results from structural or functional impairment of ventricular filling or ejection of blood, which in turn leads to the cardinal clinical symptoms of dyspnea and fatigue and signs of HF namely edema and rales". ? Making the correct diagnosis in patients with Suspected Acute Heart Failure is challenging, and confirmatory in only 40-50

---

*Index terms—*

## 1 III. Results

Comparison of mean NT-proBNP: IV. Discussion

? Among 30 controls: 1. 29 had NT-proBNP levels within normal range for their age. 2. 1 had elevated level of NT-ProBNP for their age.

? Among 30 cases: 3. 24 had NT-ProBNP level elevated for their age and were diagnosed to have congestive cardiac failure. 4. 6 had NT-ProBNP levels within normal limits for their age. These 6 patients had a normal 2D-ECHO. Breathlessness in these patients was due to non cardiac cause.

## 2 ETIOLOGY OF AMONG 30 CASES

ETIOLOGY OF DYSPNEA AMONG 30 CASES <sup>1</sup>

---

<sup>1</sup>NT-proBNP as a Diagnostic Marker in CCF © 2016 Global Journals Inc. (US)

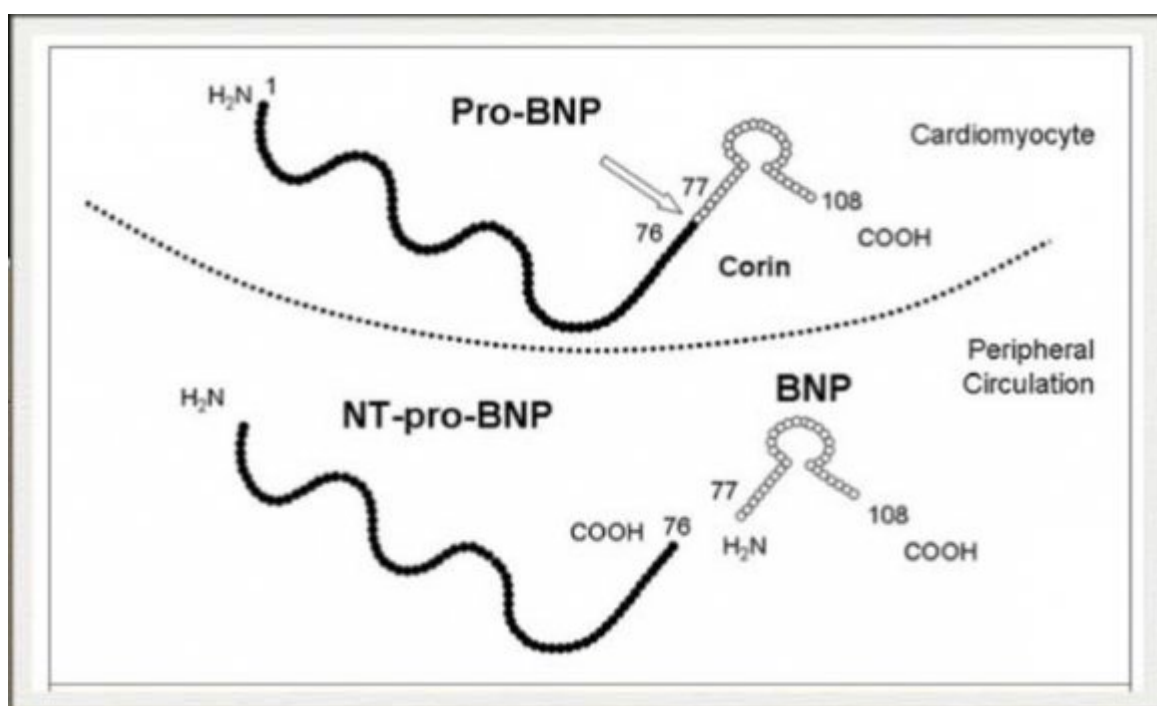


Figure 1: ?

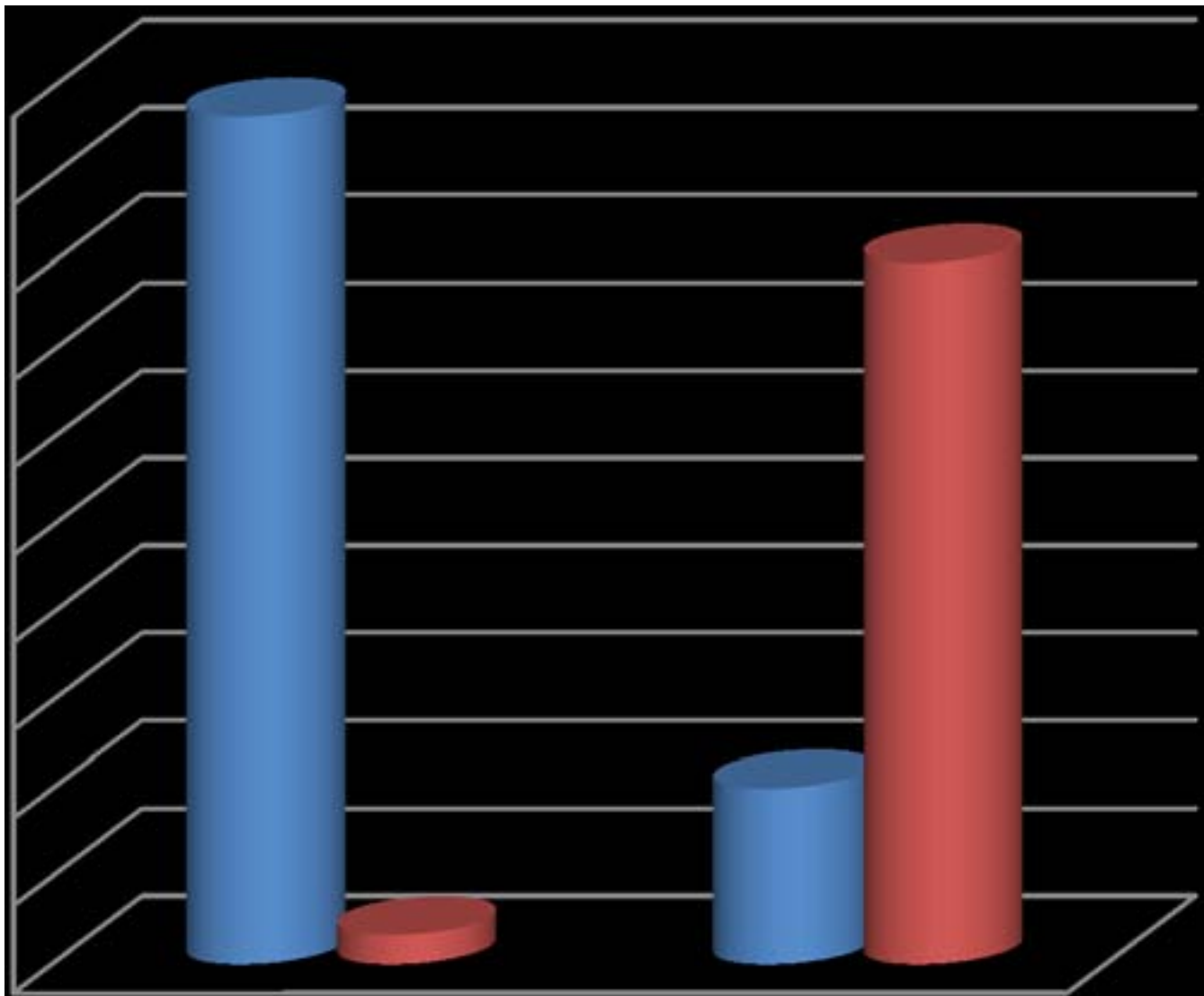


Figure 2:

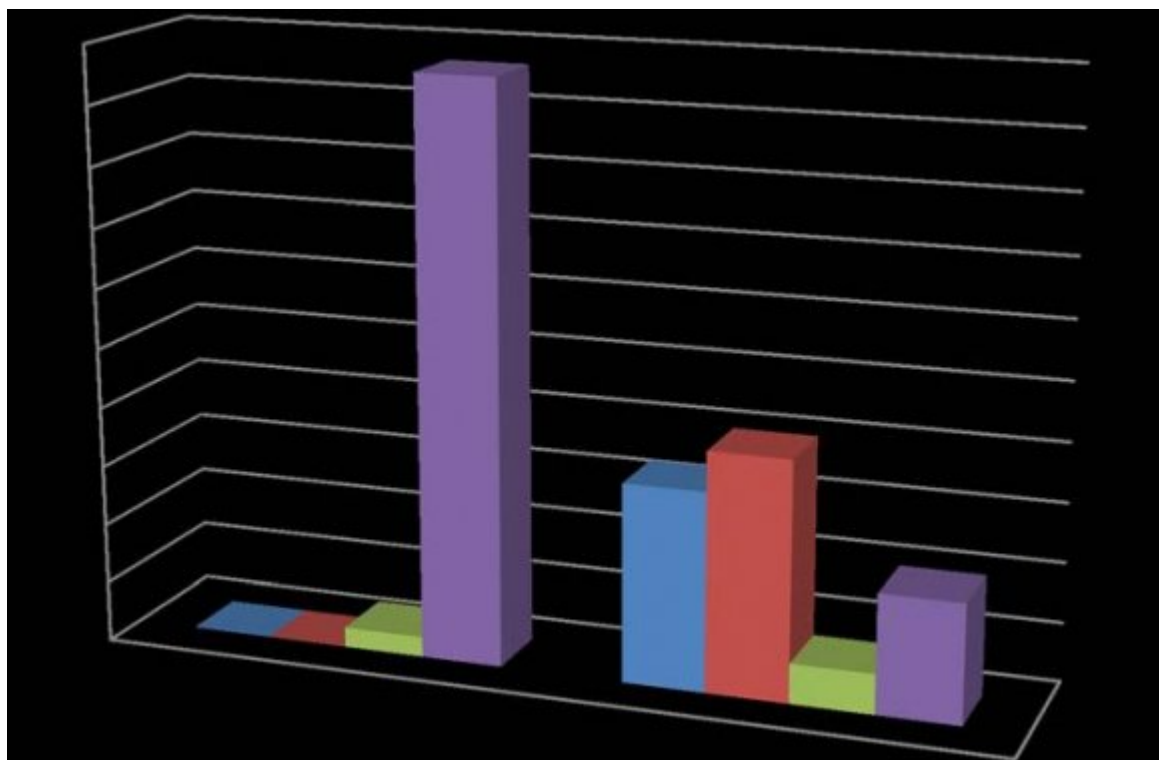


Figure 3:

? CASES: Patients suspected to have heart failure based on history, Clinical examination and ECG (Age and Sex Matched individuals).

? CONTROLS: Patients without heart failure and diseases mentioned in Exclusion Criteria.

? In our study cutoff levels for NT-pro BNP was

1. >450 pg/ml for those aged < 50 years.
2. >900 pg/ml for those aged 50-70 years.

a) Inclusion Criteria

1. Age 40-70 years.

2. b) Exclusion Criteria

1. Cor pulmonale.
2. Sepsis. 3. Lung Cancer.
4. Pulmonary Embolism.
5. ARDS.
6. Liver Cirrhosis.
7. Renal failure.
8. Patients not willing to participate in the study.

Figure 4: ?

---

## V. Discussion

? The mean value of NT-proBNP raises with

100.00% decreasing EF. NT-ProBNP values have a inverse

100.00% relationship with Ef Values. There was a strong

correlation between the 2 variable with a p value of 90.00% <0.001 80.00% ? There is a raise in NT-proBNP

70.00% NYHA grades. There was a significant correlation

40.00% 50.00% between the 2 variables with a 'P' value of 0.049 60.00% ? The mean NT-ProBNP Value am

30.00% significant with a 'P' value of <0.001.

20.00% VI. Conclusion

0.00% 10.00%

0.00%

0.00%

0.00%

Control(N30)

[Note: 1]

Figure 5: Comparison of Mean EF values



- 
- 26 [Longo et al.] , D L Longo , A S Fauci , D L Kasper , S L Hauser , J L Jameson . *Loscalzo J eds* 2 p. 2112.
- 27 [Yancy et al. ()] ‘ACCF/AHA guideline for the management of heart failure: a report of the American College  
28 of Cardiology Foundation’. C W Yancy , M Jessup , B Bozkurt , Casey Butlerj , De , M Drazner . *American*  
29 *Heart Association Task Forcw on Practice guidelines circulation* 2013. 128 p. .
- 30 [Dokainish ()] ‘Combining tissue Doppler Echocardiography and B-type natriuretic peptide in the evaluation  
31 of left ventricular filling pressures: review of literature and clinical recommendations’. H Dokainish . *Can J*  
32 *Cardiol* 2007. 23 p. .
- 33 [Mcmurray et al. ()] ‘ESC guidelines for the diagnosis and treatment of acute and chronic heart failure 2012: The  
34 task force for the diagnosis and treatment of acute and chronic heart failure 2012 of the European society of  
35 cardiology. Developed in collaboration with the heart failure association (HFA) of the ESC’. Jv McMurray ,  
36 S Adamopoulos , S D Anker , A Auricchio , M Bohm , K Dickstein . *Eur J Heart Fail* 2012. 14 p. .
- 37 [Mann and Chakinala] ‘Heart Failure : Pathophysiology and diagnosis’. D L Mann , M Chakinala . *Harrison’s*  
38 *Principles of internal Medicine 19 th ed*, (McGraw-Hill)
- 39 [Schocken et al. ()] ‘Prevention of heart failure: A scientific statement from the American heart association  
40 councils on Epidemiology and prevention’. D D Schocken , E J Benjamin , G C Fonarow . *Cardiovascular*  
41 *Nursing, and high blood pressure Research; Quality care and Outcomes Research Interdisciplinary Working*  
42 *group; and Functional Genomics and Translational Biology Interdisciplinary Working Group*, 2008. 117 p.  
43 2544. (Circulation)