

// ()
/ / , ,

NT-Pro BNP

*

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NT- Pro BNP

:

(*GFR <60*)

(*FEV₁ <1 Litr*)

(*ELISA, Biomedica-Crop, Bratislava- Slovakia*)

NT- Pro BNP

LVEF NYHA Class

$\pm$

:

$\pm$

$\pm$

NT- Pro BNP

(*P< /)*

(*P< /)* $\pm$

(*P< /)*

NYHA Class

:

BNP (NT-Pro BNP) Pro-Brain Natriuretic Peptide :

LVEF

NYHA

drpiranfar@yahoo.com :

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:.,
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/

Cross- Sectional

()

.()

(stage)

() NYHA

-

.()

(NT-Pro BNP ELISA, Biomedica Crop, Bratislava,
- Slovakia)

B

/

/

BNP

(FEV1<1 Litr)

.()

ARDS (GFR< 60)

NT-Pro BNP

(LVEF)

NT- Pro BNP

NYHA

(stage)

NT-Pro BNP

SPSS Version 13

% (CI)

-

class IV (/) class III
. (/)
(/) (LVEF) . (/) (/)
(/) % . / ±
(/) - /) (/)
NT-Pro BNP . () (/ ± /) (stage)
/) (stage A) A :
CI = (-) . (/) (stage B) B (/) (stage C) C
(P < /) . (/) (stage D) D
class I :
.() . (/) class II (/)

		NT-Pro BNP			
		NT-Pro BNP			
		Pg/ mL			
		C.I = %			
P < /	-	±	(N =)	:	-
	-	±	(N =)	:	-
P < /	-	±	N =	:	-
	-	±	N =	:	-
P < /	-	±	(N =)	:	-
	-	±	(N =)	:	-
P < /	-	±	(N =)	:	-
	-	±	(N =)	:	-
P < /	-	±	(N =)	:	-
	-	±	(N =)	:	-

NT- Pro BNP

Stage

NT-Pro BNP

LVEF

LVEF

Stage

D Stage A

. P < /

. P < /

NT-Pro BNP

-

(Stage)

%	Pg/ mL	NT- Pro BNP	
		CI = %	LVEF
-	±		-
-	±		-
-	±		

%	Pg/ mL	NT-Pro	
		CI = %	BNP Stage
/ - /	/ ± /		(N =) A
/ - /	/ ± /		(N =) B
/ - /	/ ± /		(N =) C
/ - /	/ ± /		(N =) D

NT-Pro BNP

NYHA Class

Class

Class I

Class IV

.(P < /).

NT-Pro BNP

-

NYHA Class

%	Pg/mL	NT-Pro BNP	
		CI =%	NYHA Class
/ - /	/ ± /		(N =) I
/ - /	/ ± /		(N =) II
/ - /	/ ± /		(N =) III
/ - /	/ ± /		(N =) IV

/

/ ,

.()

NT-Pro BNP

NT-Pro BNP

(stage)

NYHA class

(LVEF)

NYHA class III , IV (Stage C,D)

Betten court , Dao , Jacop

NT- Pro BNP

NT- Pro BNP

Bay .() .() .

NT- Pro BNP

Hunt

ANP BNP

NT- Pro BNP

(LVEF)

(multivariate model)

()

NT- Pro BNP BNP

NT- Pro BNP

.() BNP

NT-Pro BNP

BNP

BNP

NYHA

(LVEF)

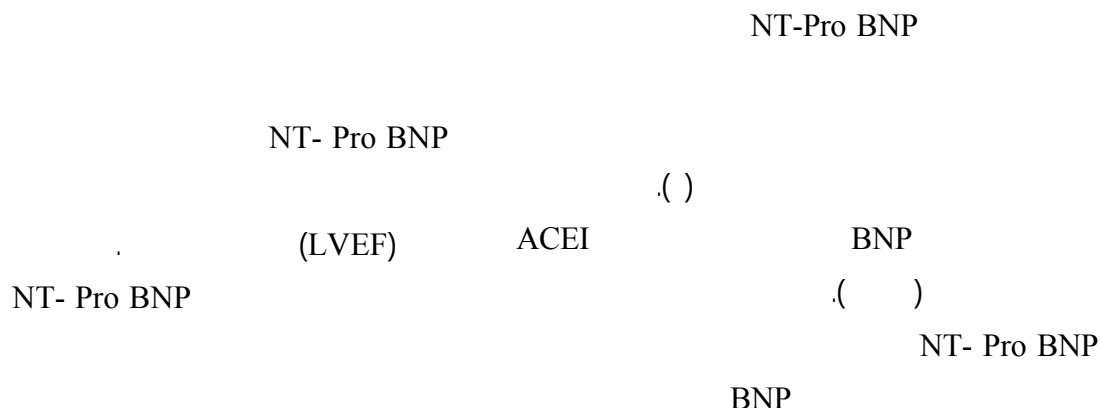
BNP

NT-Pro BNP

.()

Jacob

NT-Pro BNP



REFERENCES

1. Braunwald E. Heart failure and corpulmonale. in: Kasper DL, Braunwald E, Fauci AS, editors. Harrison's principle of internal medicine, 16th ed. New York: MC Graw- Hill Ind; 2005: 1367- 77.
2. Joung B, Park B, Kim DS, Hong BK, Kim DY, Cho YH, et al. B-type natriuretic peptide predicts clinical presentations and ventricular over loading in patients with heart failure. Yonsei Med J 2003; 44(4): 623-34.
3. Troughton RW, Christopher F. Treatment of heart failure guided by plasma amino terminal brain natriuretic peptide (N- BNP) concentrations. Lancet 2000; 355: 1126- 30.
4. Maisel, AS, Krishnaswamy P, Nowak RM. Rapid measurement of B- type natriuretic peptide in the emergency diagnosis of heart failure. N Eng J med 2002; 347: 161-7.
5. Jose JV, Gupta SN, Selvakuma D. Utility of N- terminal pro- brain natriuretic peptide for the diagnosis of heart failure. Indian heart J 2003; 55: 35-9.
6. Hunt PJ, Richards AM, Nichollas MG. Immunoreactive amino terminal Pro- BNP: a new marker of cardiac impairment. Clin Endocrinol (OXF) 1997; 47: 287.
7. Dao Q, Krishnaswamy P, Kazanegra R. Utility of B- Type natriuretic peptide in the diagnosis of congestive heart failure in an urgent- care setting. J Am Coll Cardiol 2001; 37: 379- 85.
8. Bettencourt P, Ferreira A, Dias P. Evaluation of brain natriuretic peptide in the diagnosis of heart failure. Cardiology 2000; 93: 19- 25.
9. Richards AM, Nichollas MG, Yandle TG, Frampton C, Espiner EA, Turner TG, et al. Plasma N- terminal Pro- BNP and adreno medullin: new neurohormonal predictors of left ventricular function and prognosis after myocardial infraction. Circulation 1998; 97: 1921-9.
10. Bay M, Kirk V, Parner J, Hassager C, Nielsen H, Krogsgaard K, et al. NT- Pro BNP: a new diagnostic screening tool to differentiate between patients with normal and reduced left ventricular systolic function. Heart 2003; 89: 150-4.

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11. [No Author Listed]. Effect of enalapril on mortality and the development of heart failure in asymptomatic patients with reduced left ventricular ejection fractions and congestive heart failure. The SOLVD Investigators. N Engl J med 1991; 325(5): 293-302.
 12. Murdoch DR, Mc Donagh TA, Byrne J. Titration of vasodilator therapy in chronic heart failure according to plasma brain natriuretic peptide concentration: randomized comparison of hemodynamic and neuroendocrine effects of tailored versus empirical therapy. Am heart J 1998; 138: 1126- 32.