

()

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//

*

*LVESV (LV End Systolic Volume) LVEF (Left Ventricular Ejection Fraction)
EPSS (E Point Septal Separation) LVEDV(LV End Diastolic Volume)*

Mann-Whitney t-test

LVEF

	<i>EPSS</i>	<i>(P<0.04)</i>	<i>/ ± /</i>	<i>/ ± /</i>
<i>/ ± /</i>	<i>LVESV</i>	<i>(P<0.01)</i>	<i>/ ± /</i>	<i>/ ± /</i>
			<i>LVEDV</i>	<i>(P<0.02) / ± /</i>

()

ACE Inhibitor

()

restrictive

()

Double blind placebo-controlled

)
(

(LV volume overload) ()

)
) (

() (

LVEF < %

()

(PDA)

(ASD)

(VSD)

()

()

ASA

/ mg/kg/Day

/ mg/kg/Day

SPSS

Mann – Whitney Test

Left Ventricular Ejection Fraction

) LVEF

E Point Septal Separation (

) EPSS

Left Ventricular End Systolic Volume

Left Ventricular End Diastolic LVEDV

(P < /)

Volume

CHD*	(/ %)	(/ %)	Mean ± SD	Mean ± SD	() ()
	(/ %)	(/ %)	/ ± /	/ ± /	() ()
	(/ %)	(/ %)	/ ± /	±	() ()

VSD, ASD, PDA

*

(Mean ± SD)				
LVEDV	LVESV	EPSS	LVEF	
(/ %)	(/ %)	(/ %)	(/ %)	(/ %)
/ ± /	/ ± /	/ ± /	/ ± /	(/ %)
/ ± /	/ ± /	/ ± /	/ ± /	(/ %)
P < /	P < /	P < /	P < /	

()

LVEF

EPSS LVEF

EPSS

P-value / /
/ /

ESV

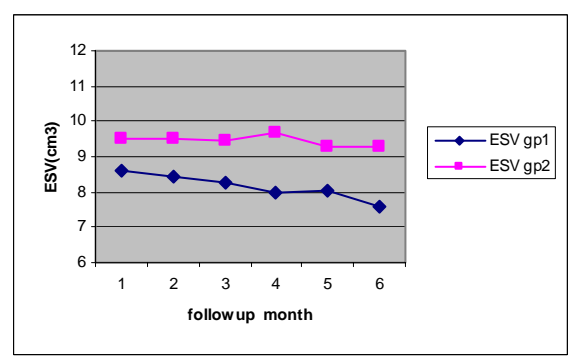
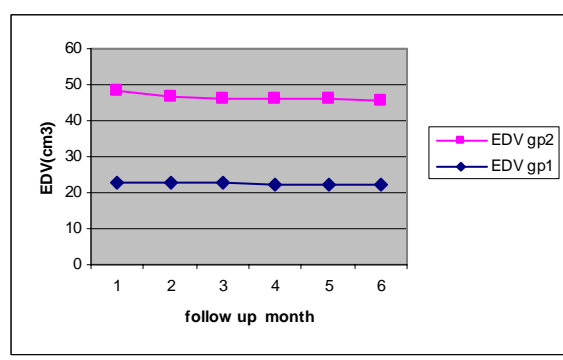
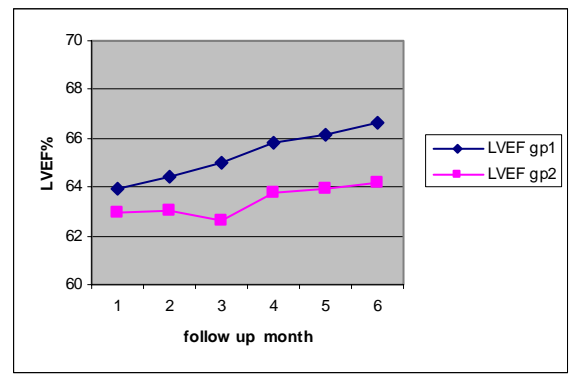
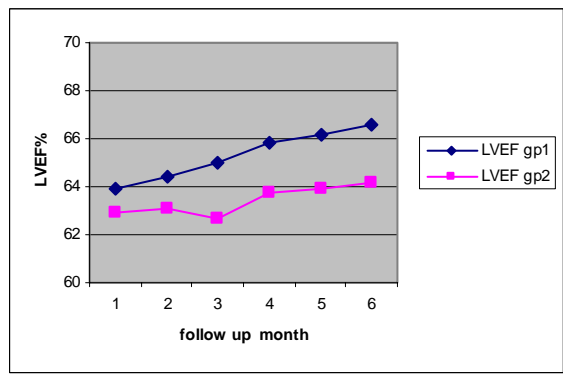
EDV

LVEF

LVESV EPSS

LVESV EPSS LVEF

P value



(gp2= gp1=)

)

LVESV EPSS LVEF

/ /

.()

LVEDV

Toyama

(DCMP)

LVEF

.()

.()

/ LVEF

/ mg/kg/Day

.()

/ mg/kg/Day

.()

Shaddy

/ mg/kg/Day

.()

/ mg/kg/Day

(CHD)

Case Report

Case Report ()

Case Report

.()

(LV volume over load)

REFERENCES

1. Hunt SA, Abraham WT, Chin MH, Feldman AM, Francis GS, Ganiats TG, et al. ACC/AHA 2005 guideline update for the diagnosis and management of chronic heart failure in the adult: a report of the American College of Cardiology/American Heart Association task force on practice guidelines. *Circulation* 2005;112(12):154-235.
2. Allen D, Catgece P, Clark EB, Driscoll DJ. Dilated CMP. *Moss & Adams Heart Disease in infant , Children and adolescents*. 6th ed. Baltimore,MD: Lippincott Williams&Wilkins.2000; P:1187-96.
3. Bristow MR, Feldman AM, Adams KF, Goldstein S. Selective vs nonselective betablockade for heart failure therapy. *J Card Fail* 2003 Dec;9(6):444-453
4. Sauls JL, Rone T. Emerging trends in the management of heart failure: Beta blocker therapy. *Nurs Clin North Am*. 2005;40(1):135-48.
5. Reiter MJ. Cardiovascular drug class specificity:beta blockers. *Prog Cardiovasc Dis* 2004;47(1):11-33.
6. Mohsin K, Akhtar N. Experience with beta blockers in long term management of peripartum cardiomyopathy. *J Ayub Med Coll Abbottabad* 2004;16(2):80-1.

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7. Bauman JL, Talbert RL. Pharmacodynamics of beta blockers in heart failure: Lessons from the Carvedilol and Metoprolol European trial. *J Cardiovasc Pharmacol Ther* 2004;9(2):117-28.
 8. Fabri G, Opasich C, Cafiero M, Carbonieri E, Gonzini L, Santoro D, et al. Beta blocker use in real world patients with severe heart failure. *Eur J of Hear Fail* 2004;3(1 suppl):38.
 9. Di Lenarda A, Cleland J, Hanrath P, Komajda M, Lutiger B, Metra M. Exchange of beta blocking therapy in heart failure patients. *Eur J of Heart Fail* 2004;3(1):39.
 10. Yokota Y. How and to what extent has beta blocker treatment been established for chronic heart failure? *J Cardiol* 1996;28(2):99-112.
 11. Communal C, Colluci WS. The control cardiomyocyte apoptosis via the beta adrenergic signaling pathways. *Arch Mal Coeur Vaiss* 2005;98(3):236-41.
 12. Palazzuoli A, Quatrini I, Vecchiato L, Calabria P, Gennari L, Martini G, et al. LV diastolic function improvement by Carvedilol in advanced heart failure. *J Cardiovasc Pharmacol* 2005;45(6):563-8.
 13. Allen D, Catgece P, Clark EB, Driscoll DJ. Dilated CMP. *Moss & Adams Heart Disease in infant, Children and adolescents*. 6th ed. Baltimore,MD: Lippincott Williams&Wilkins. 2000; P:1582- 7.
 14. Cheng J, Kamiya K, Kodama I. Carvedilol: Molecular and cellular basis for its multifaceted therapeutic potential. *Cardiovasc Drug Rev* 2001;19(2):152-71.
 15. Rickli H, Steiner S, Muller K, Hess OM. Beta blockers in heart failure: Carvedilol safety assessment. *Eur J Heart Fail* 2004;6(6):761-8.
 16. Yokota Y. How and to what extent has beta blocker treatment been established for chronic heart failure. *J Cardiol* 1996;28(2):99-112.
 17. Giardini A, Formigari K, Bronzetti L, Prandstraller D, Dotti A, Bonvikini M, et al. Modulation of neurohormonal activity after treatment of children in heart failure with Carvedilol. *Cardiol young* 2003;13(4):333-6.
 18. Ross RD. Medical management of chronic heart failure in children. *Am J Cardiovasc Drugs* 2001;1(1):37-44.
 19. Shaddy RE, Curtin E, Sower B, Tani LY, Burr J, LaSalle B, et al. The pediatric randomized Carvedilol trial in children with chronic heart failure; Rationale and design. *Am Heart J* 2002;144(3): 383-9.
 20. Toyama T, Hoshizaki H, Seki N, Isobe N, Adachi H, Naito S, et al. Efficacy of Carvedilol treatment on cardiac function and cardiac sympathetic nerve activity in patients with dilated cardiomyopathy: Comparison with Metoprolol Therapy. *J Nucl Med* 2003;44(10):1604-11.
 21. Bruns LA, Chrisant MK, Lamour JM, Shaddy KE, Pahl E, Blume ED et al. Carvedilol as therapy in pediatric heart failure: on initial multicenter experience. *J Pediatr* 2001;138(4):505-11.
 22. Maebara C, Ohtani H, Sugahara H, Mine K, Kubo C. Nightmares and panic disorder associated with Carvedilol overdose *Ann Pharmacother* 2002;36(11):1736-40.
 23. Izzedine H, Launay-Vacher V, Hulot JS, Sternberg D, Deray G. Beta – blocker – induced quadri paresis *Ann Intern Med* 2004;141(4):W 62.