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BACKGROUND

Patients with heart failure (HF) who develop secondary mitral regurgitation (MR) have a poor prognosis. The objective of this study, is to describe the impact of mitralclip therapy in HF patients with moderate to severe MR a high complexity hospital.

METHODS

Analytic study of patients with HF and ejection fraction lower than 40% with moderate to severe or severe MR, with functional class II-IV according to the New York Heart Association (NYHA), who underwent mitraclip therapy and follow up to 6 months.

RESULTS

We enrolled 23 patients with mitraclip device implantation. Successful rate of MR reduction grade was evidenced in 95.6%. Cardiogenic shock was present in 3 patients, and was the most frequent non surgical complication. In the 6 months follow up, 94.4% of the cases evidenced MR reduction and NYHA functional class improved in 85% of the patients (p<0,05) (Figure). Non cardiac mortality was reported in 2 patients, with a survival rate of 91% in 6 months follow up. Minnesota quality life questionnaire score improved in physical aspects. There was no statistically significant difference in the ejection fraction, end systolic or diastolic diameter in the follow up (Table).

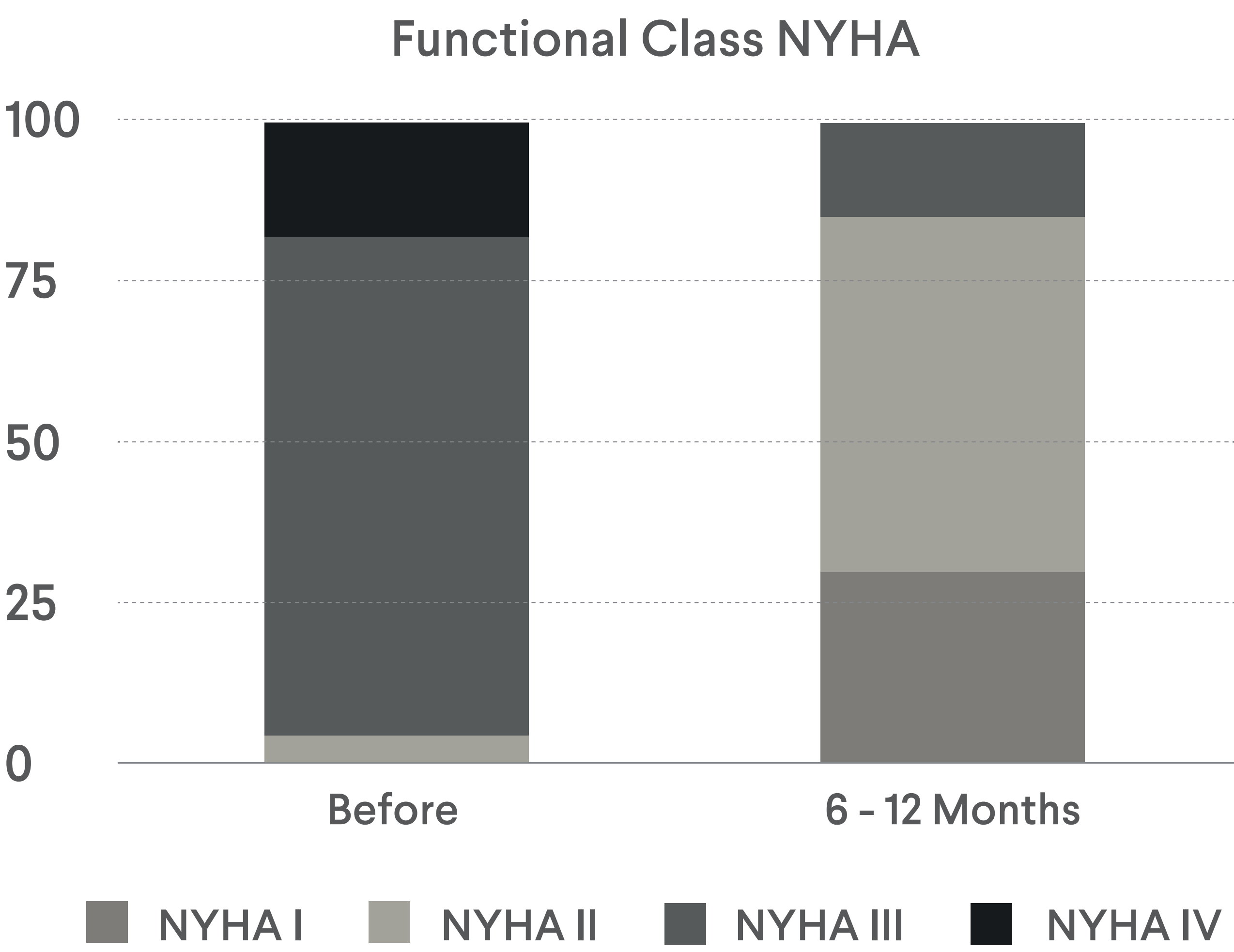


Figure. Functional class NYHA. Comparison between functional class previous to percutaneous treatment for mitral regurgitation and follow up. It Shows a significant impact in functional class.

Characteristics	Before Mitraclip	Follow-up 6 months – 12 months	p value
Age yr (RI)	69 (65 – 73)		
Male sex n (%)	13 (56.52%)		
Cardiomyopathy n (%)			
Ischemic	9 (39.13)		
Echocardiogram			
Regurgitation volume (ml) Median (RI)	37 (31 – 47)		
Effective regurgitant area (cm2) Median (RI)	0.3 (0.2 – 0.5)		
Functional Class NYHA n(%)			
I	0 (0.0)	6 (30.00)	<0.001
II	1 (4.35)	11 (55.00)	
III	18 (78.26)	3 (15.00)	
IV	4 (17.39)	0 (0.0)	
Minnesota quality life score			
Physical			
Average (SD)	25.38 (11.42)	15.25 (8.42)	0.01
Emotional			
Average (SD)	12.22 (8.22)	9.18 (5.54)	0.30
Total			
Average (SD)	56.72 (28.32)	36 (18.39)	0.05
Mitral regurgitation grade – n(%)			
Mild	0(0.0)	15 (83.33)	<0.001
Moderate	0(0.0)	2 (11.11)	
Moderate to severe	2 (8.70)	0 (0.0)	
Severe	21 (91.30)	1 (5.56)	

CONCLUSIONS

Mitraclip percutaneous therapy has an impact in the quality of life and functional class in HF patients with reduced ejection fraction and moderate to severe MR, being a safe procedure with low complication rates.

Table. Baseline characteristics, clinical and echocardiographic 6 and 12 months follow-up y patients with Mitraclip device.