ACC.14
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A836
JACC April 1, 2014
Volume 63, Issue 12

Heart Failure and Cardiomyopathies

CHAGAS' CARDIOMYOPATHY IS ASSOCIATED WITH A HIGHER INCIDENCE OF STROKE: A META ANALYSIS OF OBSERVATIONAL STUDIES

Poster Contributions
Hall C
Saturday, March 29, 2014, 3:45 p.m.-4:30 p.m.

Session Title: Heart Failure and Cardiomyopathies: Diagnostic, Prognostic and Therapeutic Strategies in Cardiomyopathies
Abstract Category: 12. Heart Failure and Cardiomyopathies: Clinical
Presentation Number: 1147-190

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Background: It has been postulated that Chagas Disease Cardiomyopathy (CD CMP) is associated with an elevated risk of stroke, but current data is conflicting and prospective controlled studies are lacking. We aimed to do a systematic review and meta-analysis of the association between stroke and CD CMP.

Methods: PubMed, EMBASE, Cochrane Central and unpublished data were searched with the following terms: "Chagas disease" AND ("stroke" OR "cerebrovascular accident"). We included studies that reported prevalence or incidence of stroke in a group of CD CMP compared to a non-CD CMP control group. Random-effect model odds ratio were computed. Heterogeneity was assessed with I2 statistics.

Results: A total of five studies and 2,922 patients were included. Only one study (Lima-Costa 2010) compared a cohort of asymptomatic CD CMP to non-CD CMP patients. All other studies compared symptomatic CD-CMP to other causes of cardiomyopathy, which the majority was ischemic. Ejection fraction was similar between groups in all studies (51 ± 15 vs 48 ± 12 for CD CMP and non CD CMP respectively, p > 0.05). Prevalence of stroke (OR 1.76; CI 1.28-2.42; p=0.0005; figure 1) were statistically more prevalent in patients with CD CMP.

Conclusion: This meta-analysis found that CD CMP is statistically associated with an increased prevalence of stroke due to unclear mechanisms. These findings suggest that a more aggressive anti-coagulation strategy should be studied in such patients.

	Chagas Disease		Control group			Odds Ratio
Study or Subgroup	Events	Total	Events	Total	Weight	M-H, Fixed, 95% CI
da Matta 2012	57	329	51	461	62.7%	1.68 [1.12, 2.53]
Lima-Costa 2010	25	524	20	874	25.5%	2.14 [1.18, 3.89]
Oliveira-Filho 2009	14	41	9	32	11.9%	1.33 [0.48, 3.62]
Total (95% CI)		**894**		**1367**	**100.0%**	**1.76 [1.28, 2.42]**
Total events	96		80			

Heterogeneity: Chi² = 0.76, df = 2 (P = 0.68); I² = 0%
Test for overall effect: Z = 3.46 (P = 0.0005)