

Meeting abstract

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## 2074 Viral acute myocarditis in Mexico: type of virus and myocardial damage patterns applying cardiovascular magnetic resonance

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### Introduction

The acute myocarditis is presented every time with more frequency. Due to the varied clinical presentations, often, it is confused with acute coronary syndromes, causing the use of diagnostic invasive and unnecessary strategies. The CMR has emerged as a non invasive tool useful for its diagnose. We do not know the virus that make this myocardial damage more frequent, thus, the prevalence and clinical implications. It is necessary the use of new diagnostic strategies because it is hard to recognize, clinically, the beginning of the disease.

### Objectives

(1) To determine the most frequent type of virus in Mexican patients with an active myocarditis. (2) To determine if there is a pattern of a characteristic myocardial damage related to the type of virus. (3) To correlate the type of virus with the severity of the disease.

### Methods and results

There were twenty patients studied consecutively with the diagnose of acute myocarditis by clinical criteria and heart magnetic resonance images in order to determine the visualization of injuries of an active myocarditis, using the technique of STIR (T2 weighted) and delayed enhancement with Gadolinium. Correlations by SPSS v.10. It gives a significance from  $p = 0.05$  and has a tendency of  $p = 0.08$ .

The delayed enhancement was present on nineteen patients (95%) and the type Patchy was predominant in one or many foci in the Myocardium and Sub epicardium (84%). The foci were found mainly in the lateral wall (84%) and inferior (68%) of the left ventricle. The viral panel was made in twelve patients, of which seven were positive (53%): 5 patients had influenza (71%), 3 patients had Epstein-Barr (42%), 1 had coxsackie (14%), 1 had cytomegalovirus (14%) and 1 had Parvo virus B19 (14%). There were two or more combined virus in two patients. The Influenza virus A and B was correlated with symptoms of higher severity of the cardiac disease ( $p = 0.03$ ) and affected the inferior wall ( $p = 0.08$ ).

### Conclusion

The cardiovascular magnetic resonance is a valuable tool to diagnose and monitorate the progress and/or the regression of the acute myocarditis. The delayed enhancement is a frequent feature in viral acute myocarditis and it is an associated active inflammatory process and/or necrosis. In our investigation, the virus that were found most frequently are: Influenza A and B and Epstein-Barr, mainly, causing damage in the inferior wall with a pattern type Patchy in the mesocardium and sub epicardium. They were correlated with a higher severity of the disease.