# HIGHER MYOCARDIAL INFLAMMATION IN DCM PATIENTS SUBMITTED TO HEART TRANSPLANT WAS ASSOCIATED WITH GOOD PULSE THERAPY RESPONSE WITH DECREASE IN BACTERIA ANTIGEN LEVELS IN THE MYOCARDIUM.

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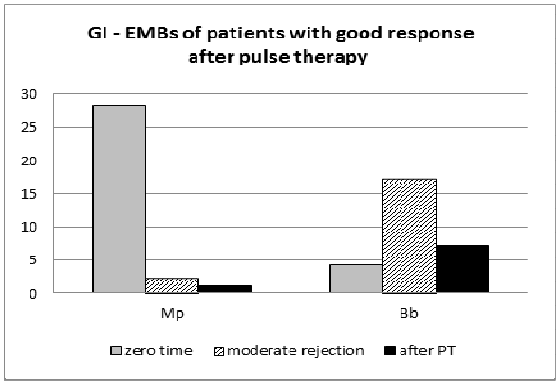
*Abstract:*

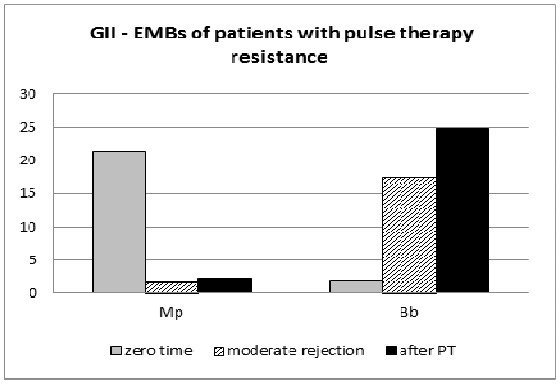
**Introduction** - Dilated Cardiomyopathy (DCM) has been related to bacterial and viral infection accompanied or not by myocardial inflammation. In this paper we studied if *Borrelia burgdorferi* (Bb), *Mycoplasma pneumoniae* (Mp) and myocarditis are present in DCM receptor hearts (RH), and related to outcome after heart transplantation.

**Methods** – Endomyocardial biopsies (EMBs) were studied regarding Bb and Mp bacterial antigens in RH, donor heart (zero time); moderate rejection (MR) and persistent rejection (PR) by immunohistochemistry. **GI** (n=5) - patients having one episode of MR and **GII** (n=5) - patients presenting persistent MR. In RHs, we also evaluated the CD3 Tcells/mm$^2$.

**Results –** The mean % area of Bb and Mp antigens in RH of GI were: 7.5 and 26.6, and in GII were 9.3 and 22.6 without significant difference. There was significant increased numbers of CD3T cells/mm$^2$ in GI (18.6 ±9.8) than in GII (4.3 ± 1.2), $P$<0.01. In GI, a positive correlation was observed between Bb vs Mp (r =0.76, $P$ =0.23) without statistical significance (meaning a symbiotic association) and absence of correlation in GII (r= 0.07, $P$ =0.93). The mean % area of Bb and MP in EMBs of zero time - donor, MR and after PT in GI and GII are shown in the figure. In zero time of both groups there were a large amount of Mp and few Bb, which increased during MR episodes. In group GII, Bb remained increasing after pulse therapy (PT), and decreased in GI.

**Conclusion -** Higher myocardial inflammation in DCM pts submitted to HT was associated with MR regression after PT and low myocardial inflammation with persistent MR. Bb in symbiotic association with Mp may be related to a good PT response during episodes of MR in GI. % positive area for *Mycoplasma pneumoniae* (Mp) and *Borrelia burgdorferi* (Bb) in receptors hearts (GI and GII) and the respective EMBs after heart transplantation in zero time, Moderate rejection and after PT.




**Key words** – Dilated Cardiomyopathy, Borrelia burgdoferi, Mycoplasma pneumoniae, Endomyocardial biopsies

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