

TIMIC study

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Background - DCMi

- **Viral persistence and autoimmunity are implicated in the pathogenesis of Inflammatory Dilated Cardiomyopathy (DCMi)**
- **The aim of therapy in DCMi is eradication of:**
 - **Inflammatory cells**
 - **Autoantibodies and immune complexes directed against myocytic epitopes**
 - **Viral particles from the myocardium**

DCMi –Evolving Therapies

♥ Improvement in LVEF and NYHA was achieved with:

- *antiviral agents** - in pts with viral persistence
- *immunosuppression*# - in pts with immunohistological markers of chronic inflammation and with cardiac AutoAb

♥ Immunosuppression can be potentially harmful if administered to patients with viral persistence

*Kuhl U et al. Circulation 2003;107:2793-98. Single center, nonrandomized trial

#Wojnicz R et al. Circulation 2001;104:39-45. Single center, randomized trial.

Frustaci A et al. Circulation 2003;107:857-63. Single center, retrospective analysis

The TIMIC Study – Major Finding

- **38/43 (88%) of the treated group improved:**
 - **LVEF%, from 26.4 ± 6.9 to 48.0 ± 7.3**
 - **LVEDD (mm) from 68.6 ± 7.4 to 52.8 ± 6.3**
 - **Inflammatory infiltrates on repeat endomyocardial biopsies (EMB) disappeared**
- **35/42 (83%) of the placebo group worsened both by echocardiographic and by EMB criteria**

The Importance of the TIMIC Study

- √ **First randomized trial of immunosuppressive therapy in patients with both:**
 - proven *chronic myocardial inflammation*
 - *virus negative* biopsies
- √ **The remarkable results of this study compare favorably with those of a previous report of immunosuppression in chronic myocardial inflammation (HLA upregulation), *in which viral status was not evaluated*[#]**

[#] Wojnicz R et al. Circulation 2001;104:39-45

Conclusions

- **There is a growing body of evidence, supported mostly by single center studies, for the use of *immunosuppressive or antiviral therapy in selected subsets of patients with DCMi***
- **The strength of evidence for implementing in clinical practice these therapeutic approaches will be hopefully enhanced by positive results of ongoing multicenter immunomodulatory studies**