

Element 56.00

Schnittger

Therapeutic Strategies

- Echo / Doppler provide large amounts of information
- Failure may be secondary to:
 - systolic failure*
 - diastolic failure or*
 - conditions that masquerade as failure*

Therapeutic Strategies

- Pharmacological
- Optimize HR & arrhythmias
- Correct low K, anemia
- Mechanical support
- Cardiac transplantation
- Specific interventions

Heart Failure Over Time

Systolic function

- **EF most common**
- **Volume, SV and CO are desirable, less reproducible.**
- **Doppler SV from TVI more reliable, not applicable in AR**
- **LV size and FS are simple and reproducible**

Heart Failure Over Time

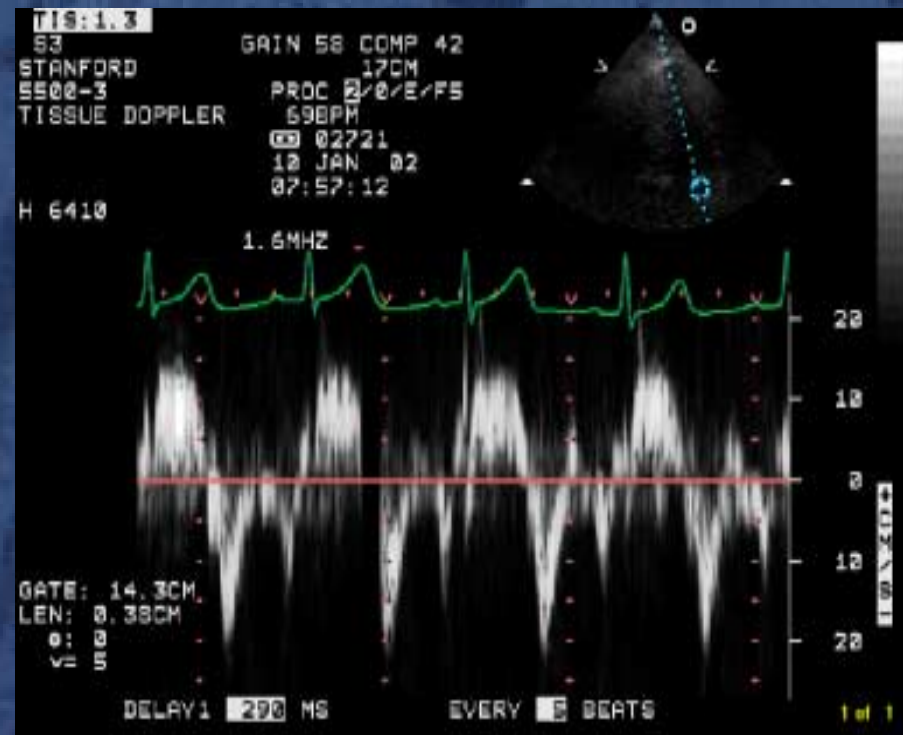
Diastolic function

- **Mitral Valve Doppler important for assessment of diastolic filling**
- **MV Doppler is influenced by HR, age, arrhythmias & severe MR**
- **Pulmonary vein Doppler velocities are complimentary**

Heart Failure Over Time

Doppler Tissue Imaging

- less load dependent
- may be more reliable



Heart Failure Over Time

Secondary consequences

- **PA systolic pressure**
- **RA pressure**
- **Degree of MR and TR**
- **RV size and function**

Heart Failure Over Time

Prognostic Value in CM

- **LV size, wall thickness & EF**
- **LA size and MR**
- **PA systolic pressure**
- **RV size and function**
- **MV Doppler inflow patterns**

Heart Failure Over Time

- Low EF, LVE / increasing sphericity → poor prognosis
- RVE / decrease in RV function → poor prognosis
- Restrictive filling pattern of MV Doppler inflow → reduced survival in pts w dilated CM

Limitations in Measurement Accuracy

- **Beat-to-beat variations**
- **Study-to-study variations**
- **Sonographer variability**
- **Interpreter variability**

Setting Guidelines

- **Strict guidelines & standards**
- **Serial measurements**
- **Reproducibility**

....over time

***It is more important to
do fewer measurements
well ... than many
measurements with less
attention to details***