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## Real case – from data to practice

Chair of Internal medicine, Belgrade University School of Medicine  
 President, Heart failure Society of Serbia

## Case presentation

- **Male, 33y, tennis player**

End Dec 2015

- **Respiratory infection, productive cough, followed by dyspnea, fatigue, fever up to 39 °C**

Begg. Jan 2016

- **Hospitalization in regional hospital: EDDLK 7.3cm, EF 20%, ascites, right side bronchopneumonia on Chest X-ray**
- **Tx : antibiotics i corticosteroids**

Mid Feb 2016

- **Worsening HF, transferred to University clinic on milrinon**

End Feb 2016

- **NYHA II-III on admission to our department**

## Case presentation

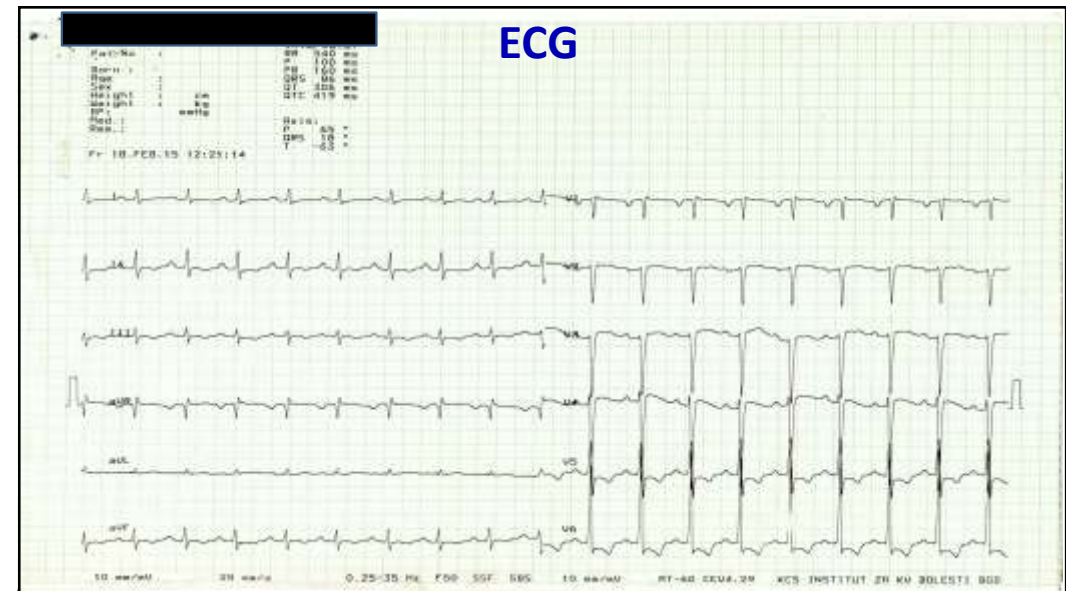
### Personal history:

- Frequent bronchitis with fever in past history
- Risk factors: smoker (3y, 1pack/d), family history (father CMP, uncle AMI in 60y).
- No allergies, no alcohol or drug abuse

### On admission:

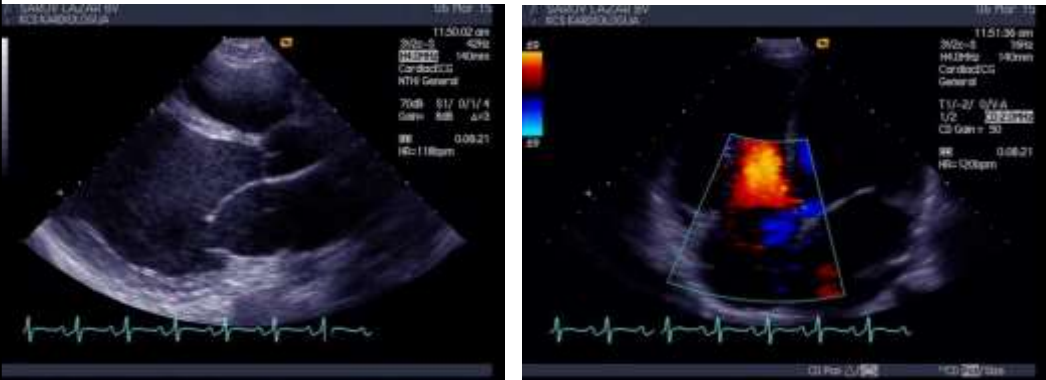
- Afebrile, no signs of cyanosis and icterus, mildly dyspnoic, muscular
- (170cm, 53kg)
- Normal lung sound
- Systolic murmur on apex 2/6, BP- 100/70mmHg
- No lymphadenopathy, hepatosplenomegaly or peripheral oedema

**BNP-500**



### TT Echo exam

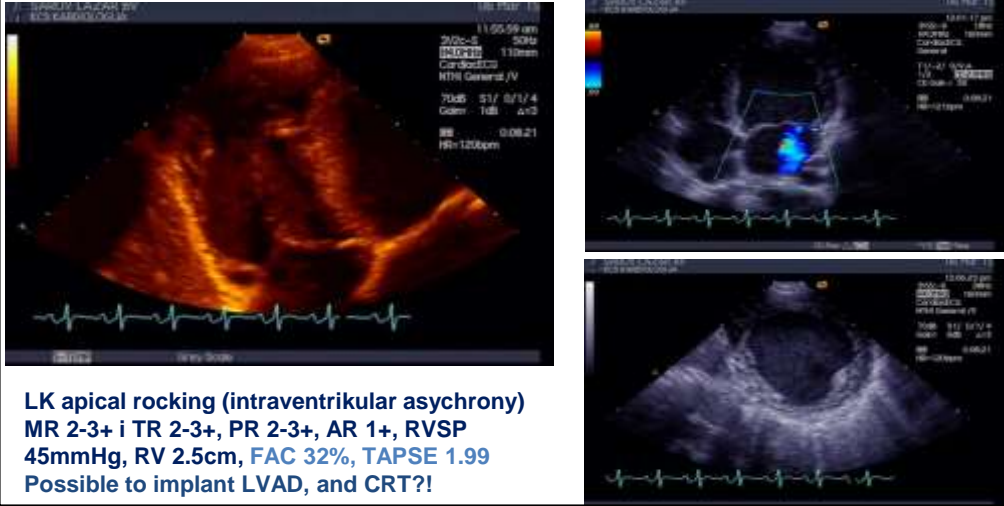
February 2016.



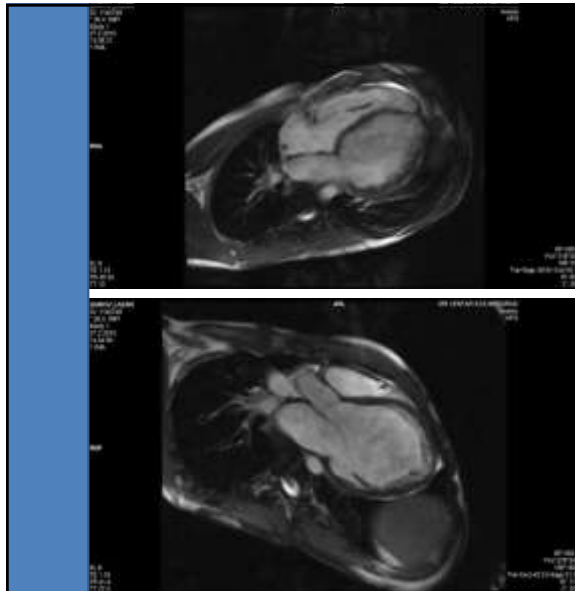
**Dilated CMP**  
**LVEF: M mod 8.5%, biplane 12.5%**

### TT Echo exam

February 2016.



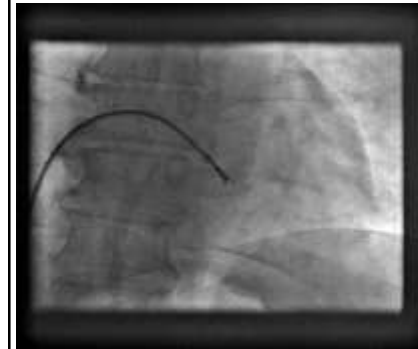
**LK apical rocking (intraventricular asynchrony)**  
**MR 2-3+ i TR 2-3+, PR 2-3+, AR 1+, RVSP**  
**45mmHg, RV 2.5cm, FAC 32%, TAPSE 1.99**  
**Possible to implant LVAD, and CRT?!**



### NMR

- Lateral LV wall oedema, no late enhancement change in signal intensity
- **Differential dg: myocarditis**

### Right heart catheterization and endomyocardial biopsy



- PCWP 15mmHg, mPA 22mmHg, RVSP 38mmHg, CO 4.07l/min, SAR 1375, **PAR 176**
- **Pathohystology:** non specific finding of lightly dilated myocardium, not enough criteria for myocarditis
- **PCR:** no viruses detected

## 24h Holter ECG



- s.r., fr 84-125/min (average 103/min)
- 15 single focus monomorphic VES**
- 14 SVES, 1 string 5 SVES
- No pauses detected

## Control TT Echo exam

March 2016.

- Dilated CMP, larger motion amplitude for mitral and tricuspid valve, other findings as before – **not candidate for LVAD**
- Ao 2.7cm, AR1+, MR 2+, LA 3.8x4.7x6.0cm, **LK 6.9/6.3cm**, **EF 18%**, RV 2.7cm, TAPSE 2.45cm, FAC 18.7%, TR 2-3+, SPDK 48mmHg, VCI 2.0-1.2cm.

March 2016

## Discharge from our department



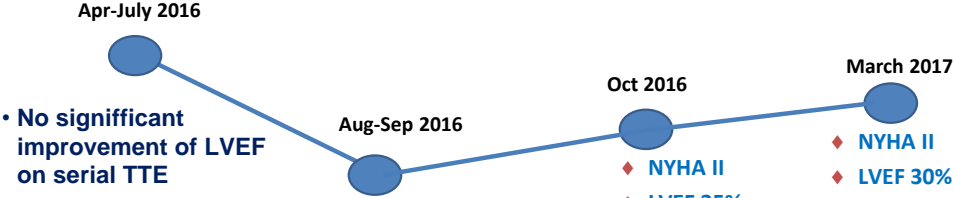
- NYHA II
- Compensated (BP 120/70mmHg, HR 70/min)

Tx:

- Ramipril 2.5mg
- Metoprolol succinate 95mg
- Furosemide 125 mg
- Spironolacton 50mg

•**Conclusion: control TEE and ergospyrometry in one month, decision for ICD/CRT implantation**

# Outcome



- ◆ Multiple rehospitalizations for worsening HF
- ◆ NYHA III
- ◆ Tx
  - Sacubitril/valsartan (49+51mg)
  - Metoprolol succinate 1x95mg
  - Furosemide 250 mg
  - Spironolacton 50mg