What Would You Do?
Challenging Heart Failure Cases

University of Washington Heart Failure Symposium

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DISCLOSURE

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Consulting, Speaking & Teaching: Syncardia, Medtronic, Abbott, Abiomed
Case 1 – Medical History

• Mr. D.S. is a 24 y/o male previously healthy. Presented with subacute course of dyspnea, orthopnea, hypotension and decrease urine output and found to be in cardiogenic shock.

• During initial eval cMRI showed non-compaction physiology

• Enrolled in the HFN LIFE study (Entresto vs valsartan for NYHA HF)

• Maintained on milrinone 0.25 mcg/kg/min and failed multiple weaning attempts with low SVO2 and rising creatinine

• Underwent Advanced Heart Failure evaluation

• Blood type: AB
Case 1 – Social History

- Lives alone however has family nearby
- Recently smoked 3 cigarettes per day however quite smoking ~2 weeks prior to hospital presentation
- Occasionally used edible marijuana recreationally
- Drug screen negative for all substances on admission
Case 1- Treatment Plan Decision

• Treatment options:
  – VAD implantation for:
    • Destination therapy
    • Bridge to transplantation
  – Transplant listing:
    • Substance contract
    • No substance contract
Case 1 - Discussion

• Panelists:
  – What treatment course would you chose and why?
  – Is a substance use contract needed in this situation? Why or why not.
  – Is there any utility to attempt further medical therapy?
B.W. is a 65 y/o female with hx of ischemic cardiomyopathy s/p CABG in 1995 and multiple stent placements over the past 4 years.

Further PMHx includes OSA on CPAP, Type 2 DM, CKD stage 3 with baseline creatinine 1.4 and psoriasis.

Been followed by Cardiology for 15 years.

Denies substance use hx, lives with husband ~10 miles within the hospital.

Retired Oncology Nurse
Case 2 – Medical History

• TTE ~ 6 months ago showing:
  – Left ventricle severely dilated with normal wall thickness and severe globally reduced systolic function. EF 28% No LV thrombus seen.
  – Moderately dilated RV with grossly normal function although not well seen.
  – Mod MR with posteriorly directed jet and decreased leaflet motion from LV enlargement.
  – Mild TR with decreased leaflet motion from RV enlargement.
  – No pericardial effusion
  – LVEDd 6.8cm
Case 2 - Trajectory

- Over the past 9 months B.W. has had increasing complaints of SOB with her usual activity of walking 2 miles per day and is currently only able to walk 0.5 miles per day.

- Also had complaints of not sleeping well and feeling intermittently dizzy.

- Her BP was noted to be “low” 2 months ago and her creatinine slightly higher than her baseline.

- Her lisinopril was stopped and her carvedilol was decreased from 50 mg BID to 25 mg BID.

- She called the clinic with further worsening of SOB, dyspnea and dizziness and was asked to come to the clinic.
Case 2 – Clinic Visit

• At her clinic visit:
  – Vitals: BP 85/60, HR 92
  – Labs: Creatinine 2.1, mildly elevated LFTs, Na 130, pre-albumin 9.4

• Physical exam:
  – +S3, JVP ~11, 1+ BLE edema

• Current medications:
  – Carvedilol 25 mg BID, ASA 81 mg, Lasix 40 mg daily, spironolactone 12.5 mg daily and pravastatin 40 mg daily
Case 2 – Risk Stratification

• Panelists:

• What is her AHA/ACC Staging and functional classification?

• What is her current INTERMACs profile?

• What further testing is required at this time?

• How can this patient be risk-stratified further?

• When would you refer to an advanced heart failure program?
Thank You!

• Questions?
• Comments?
• Discussion
What Would You Do? Challenging Heart Failure Cases

Jacob P. Kelly, MD, MHS, FACC
DISCLOSURE

Jacob P. Kelly, MD

Honoraria: Novartis, Actelion Pharmaceuticals
Case Presentation

• 64 yo California born, Alaskan man (46 years) with long-standing NICM (carvedilol + Lisinopril since 10/2000)
  • with recurrent HF symptoms September 2017 → s/p ICD, transitioned to entresto
  • Improved symptoms, he wishes to return to work:
    • ETT 7:45 Bruce ETT (FAI 0 for active man, EF <15-20%)
    • back to slope working 2 weeks on/off
What would you do next?

• Returns April 2018 feeling a bit run down but continues to work
• Has been on GDMT for HF s/p ICD
Updated RHC/LHC + CPET

- RA 58%, PA 57%, FA 95%
- RAP 14 mmHg
- RV 53/0 mmHg
- PA 48/26, meap PA 37 mmHg
- PCWP 29 mmHg
- Ao 94/72, MAP 82 mmHg
- LV 101/14, LVEDP 17 mmHg
- TD/Fick CO 3.55/3.51 l/min
- TD/Fick CI 1.76/1.85 l/min/m2
- SVR 20.3 Woods Units
- PVR 2.38 Woods Units
- Normal coronary arteries

- He wasn’t able to perform Metabolic Stress test
• 3 series of admissions requiring
  • IV Lasix
  • Initiation of Inotropes
  • End-organ damage despite IV inotropes

• Next steps
  • Medevac to UW
  • Palliative Care, **Live and die in Alaska**
  • He has no family in Seattle, WA but multiple family members in LA
WHAT WOULD YOU DO?
CHALLENGING HEART FAILURE CASES

ERIK KELLISON, PHARMD, BCPS, BCACP, BCCP
Consulting, Speaking & Teaching: Novartis Pharmaceuticals
THE CASE OF PR

57-YEAR-OLD FEMALE

• CC
  • WORSENONG SOB FOR PAST 3 WEEKS
  • ANKLES SWELLING

• PMH
  • NSTEMI
  • OBESITY (BMI = 33)

• MEDICATIONS
  • ASPIRIN 81 MG QD
  • LISINOPRIL 10 MG QD
  • METOPROLOL TARTRATE 25 MG BID
  • PRAVASTATIN 10 MG QD

• ALLERGIES
  • SIMVASTATIN (MYALGIA)
HOSPITALIZED FOR NEW HFREF

ADMISSION LABS
- BNP 1289; SCR 1.22; BUN 18; K 3.8

ECHO
- LVEF = 30-34%

COURSE:
- AGGRESSIVE IV DIURESIS
- NEW DIAGNOSES OF T2DM WITH A1C 8.7%
DISCHARGE MEDICATIONS

- CARVEDILOL 6.25 MG BID
  - METOPROLOL TARTRATE STOPPED
- LISINOPRIL 2.5 MG QD (↓ DOSE)
- FUROSEMIDE 40 MG QAM (20 MG TABS)
- POTASSIUM 20 MEQ QD (10 MEQ TABS)
- INSULIN GLARGINE 10 MG QHS
- ATORVASTATIN 40 MG QD
  - PRAVASTATIN STOPPED
- ASPIRIN 81 MG QD
OFFICE VISIT 11 DAYS POST-D/C

• CLINICALLY EUVOLEMIC
• DIDN’T BRING MEDICATIONS
  • “I’M TAKING EVERYTHING ON THE LIST”
  • DID NOT START INSULIN
OFFICE VISIT 2 DAYS LATER

BROUGHT MEDICATIONS

• ONLY TAKING FUROSEMIDE 20 MG QAM AND POTASSIUM 10 MEQ QD (DIDN’T READ BOTTLES)
  • COUNSELED

• START SPIRONOLACTONE 25 MG QD
  • STOP POTASSIUM

• START METFORMIN ER 500 MG QAM (SELF-TITRATE TO 1500 MG QAM)
  • DO NOT START INSULIN GLARGINE
CLINIC F/U 3 WEEKS LATER

- DOE UNCHANGED
  - NO LIGHTHEADEDNESS, DIZZINESS, ORTHOSTASIS
- INCREASED LISINOPRIL TO 5 MG QD
CLINIC F/U 3 WEEKS LATER

- REMAINS ASYMPTOMATIC (SAVE FOR EXERTIONAL DYSPNEA, FATIGUE)
- INCREASED CARVEDILOL TO 12.5 MG BID
- STARTED EMPAGLIFLOZIN 10 MG QAM
  - REDUCED FUROSEMIDE TO 10 MG QAM
CLINIC F/U 3 WEEKS LATER

- INCREASED URINATION, LIGHTHEADED
  - IMPROVED DOE
- INCREASED CARVEDILOL TO 25 MG BID
- STOPPED FUROSEMIDE
CLINIC F/U 3 WEEKS LATER

• LIGHTHEADEDNESS RESOLVED
• FURTHER IMPROVEMENT IN DOE, FATIGUE
• REPEAT A1C
  • STARTED LIRAGLUTIDE
SGLT2 DIFFERENCE?

38% ↓ CV DEATH

35% ↓ HFH

39% ↓ NEPHROPATHY ↓ DIURETICS?

- FUROSEMIDE 20 QAM
- FUROSEMIDE 10 QAM
- NO LOOP