Patient Case Study
Aortic Stenosis

Lisa McManus
Heart Failure Nurse Specialist
Royal Bournemouth Hospital
# RAPID ACCESS ECHO AND HEART FUNCTION REFERRAL
Royal Bournemouth and Christchurch NHS Trust

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<th>PATIENT DETAILS</th>
<th>GP DETAILS</th>
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<td>Name</td>
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<td>Date of Birth</td>
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**NTPro-BNP LEVEL (please write the number here)**

| History of Myocardial Infarction |

**Symptoms**
- Breathlessness
- PND
- Ankle swelling
- Orthopnoea

**Examination findings**
- Raised JVP
- Lung crepitations
- Oedema/Ascites

**Relevant past medical history**
- Hypertension
- Atrial Fibrillation
- Coronary artery bypass grafts
- PCI/Angioplasty
- Diabetes

**Investigations (needed in all cases)**
- Is the ECG attached?
- Is the drug list and past medical history attached?
- Have baseline bloods been sent?  
  (FBC, U&E, LFT, T4,TSH +/- Lipids)
Patient History

- Mr B was referred to the Rapid Access Heart Function Clinic (RAHFC) on 25/07/14
- Symptoms are worsening shortness of breath and paroxysmal nocturnal dyspnoea. No reported chest pain, palpitations or syncope
- Past medical history of carcinoma of the prostate only – previously fit and well
- NT-Pro BNP 22,758
Physical Assessment

- Twinkling eyes and sun tan
- Aged 90
- Short of breath on minimal exertion
- BP 106/56 - Pulse 60 regular - Saturations 96%
- Mild pitting bilateral ankle oedema
- Auscultation – clearly audible ejection systolic murmur
- Some dullness at the base of his lungs
12-Lead ECG
Parasternal Long Axis View
Parasternal Short Axis View – Level of Left Ventricle
Parasternal Short Axis View – Aortic Valve Level
Apical 5 Chamber View – Demonstrating Aortic Valve
Aortic Valve Peak Gradient = 65mmHg
Aortic Valve Area estimated at 0.7cm² (Normal >2cm²)

Measurements consistent with Severe Aortic Stenosis
Choices given to Mr B

- Diagnosis of Severe Aortic Stenosis explained with options of:
  - Balloon Aortic Valvuloplasty (BAV)
  - Transcatheter Aortic Valve Replacement (TAVI)
  - Maggic Score – Risk of dying within one year – 39.8%
    Risk of dying within three years 72.5%
  - Euroscore – 16.49%
  - Alternative option - do nothing – medical therapy and palliative care in due course
Follow-Up Appointment

- Feeling well with no worsening of symptoms
- Mr B decided that he would like further investigation to explore whether intervention is appropriate
- Outpatient Coronary Angiogram requested
- Mr B and his daughter were happy with the outcome of clinic
Family Concerns

- Mr B’s GP phoned to say Mr B’s son is concerned and very keen for Mr B to have angiogram and treatment to improve his symptoms.
- Mr B then phoned me to apologise and said he was having the angiogram to keep his son happy but does not require any further treatment.
Coronary Angiography – No significant flow-limiting disease
Summary of Investigations

- **ECG:** Sinus rhythm with Left Bundle Branch Block

- **Echo:** Severe LV systolic impairment (EF = 29%)
  - Moderate to severe RV systolic impairment
  - Severe Aortic Stenosis, mild Aortic Regurgitation
  - Moderate Mitral Regurgitation

- **Coronary Angiography:** No flow-limiting disease

- **Chest X-Ray:** Bilateral Pleural Effusions
Coronary Angiogram Report

“The fact that the coronary arteries are in reasonable shape does potentially open the door to consideration of balloon aortic valvuloplasty and possible TAVI. Mr B’s son is keen on such intervention but Mr B is undecided.”

“Given Mr B’s current quality of life and symptoms intervention of any sort would not be appropriate.”
Later That Day

- The Consultant Cardiologist had a long conversation with Mr B. Mr B feels that he has had 90 very happy years and is not bothered about what happens next. There are different views in the family but we should respect Mr B’s wishes.

- Intervention would be a long and difficult road and involve many high risk procedures.
Mr B passed away peacefully at home surrounded by his family on 2\textsuperscript{nd} October 2014, according to his wishes.

Mr B’s son phoned me the next day to say thank you.
Conclusion

- We felt it was crucial that we listened to Mr B’s wishes and supported him psychologically and spiritually. We ensured that both Mr B and his family had a full understanding of his diagnosis and prognosis.
- If asked most patients express a preference to die at home but unfortunately very few manage to stay at home.
- UK NHS End of Life Strategy – Patients should be treated as individuals, have no pain or other symptoms, be in familiar surroundings and in the company of close family or friends.
References