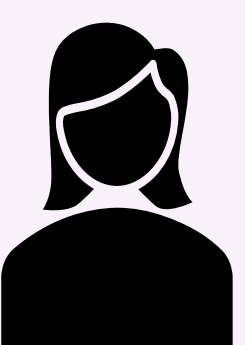


Peripartum management of a patient with severe pre-existing dilated cardiomyopathy and morbid obesity

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Case Presentation



32-year-old Primigravid
Weight: 161kg Height 155cm (BMI:>60)
Familial dilated cardiomyopathy



Presented to Pregnancy Heart Team in first trimester with LVEF 19% on 4 pillars heart failure medication

Risk assessed as mWHO Class IV

Comorbidities: high BMI, OSA on CPAP, chronic hypertension



Counselled regarding high mortality of pregnancy but declined termination and engaged fully with pregnancy heart team



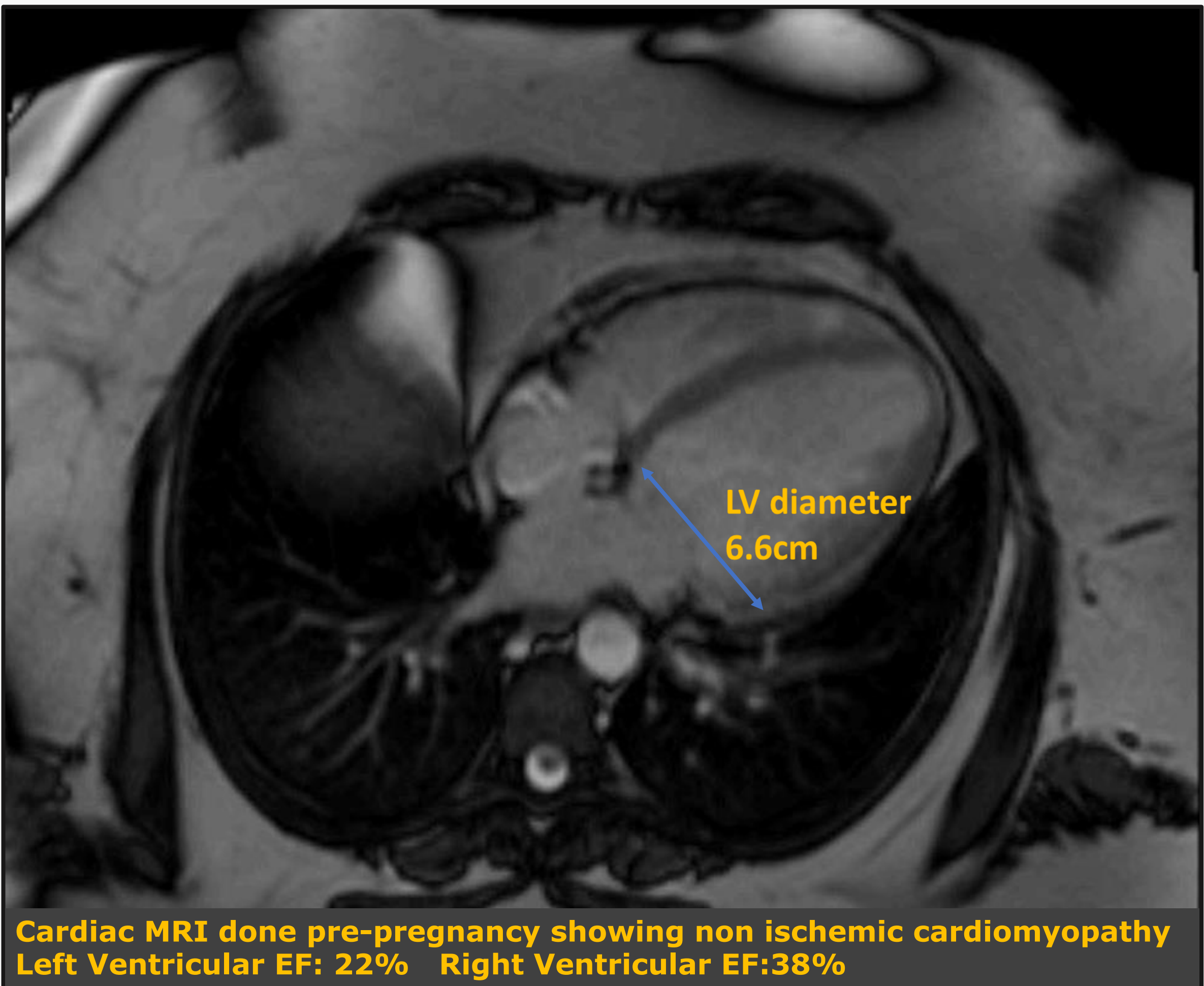
Heart failure medications contraindicated for pregnancy stopped and prophylactic anticoagulation introduced

She was monitored fortnightly by pregnancy heart team in a tertiary centre

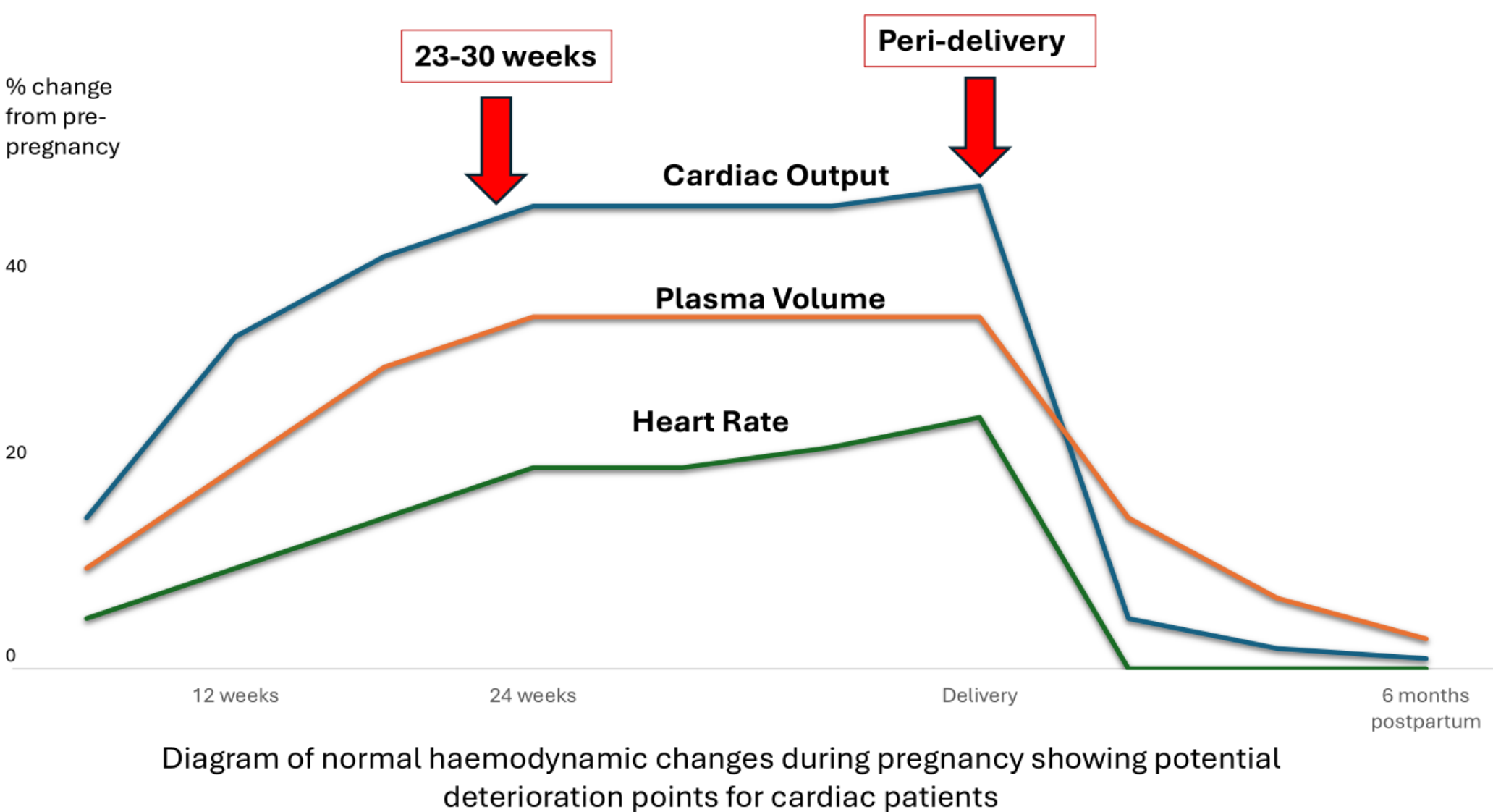


Developed worsened breathlessness on minimal exertion at 26+5 weeks

Hospitalised and stabilized in cardiac unit with intravenous diuretics and beta blockers and steroids for foetal maturity



Review: cardiovascular changes in pregnancy



Potential deterioration points in cardiac patient:

- ❑ 23-30 weeks: increased blood volume and cardiac output
- ❑ Peri-delivery: autotransfusion from uterine contractions

Management

Concerns

- Balance of optimising maternal cardiology physiology and foetal maturation
- Challenging surgical and anaesthetic management and not suitable for category 1 delivery

Considerations

- High risk of adverse cardiac events and pulmonary oedema post partum
- Challenging body habitus: equipment and personnel needed for transfer and careful positioning in theatre

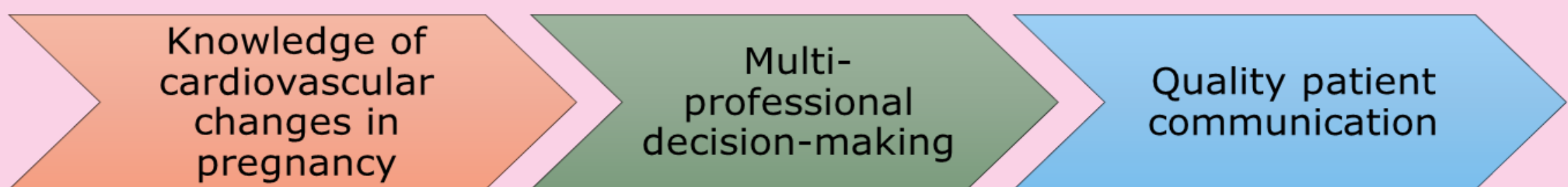
Care delivered

- ❖ Category 3 LSCS at 28 weeks
- ❖ Multiprofessional involvement
- ❖ Semi-recumbent positioning with arms supported
- ❖ Cardiac support: peripheral noradrenaline, NIV and BiPAP (to improve oxygenation), minimal fluids
- ❖ Anaesthetic: Arterial and central line monitoring; Low dose spinal with slow epidural top up
- ❖ Uneventful delivery and minimal blood loss
- ❖ Good communication; ensured mum and baby bonding
- ❖ Post delivery: desaturation requiring NIV, GTN infusion and furosemide
- ❖ Monitored on CCU post partum; early re-introduction of cardiac medications and successful discharge home

Discussion

- Dilated cardiomyopathy is defined as LV dilatation and systolic dysfunction unexplained by other causes.
- Women with pre-existing cardiac disease are vulnerable to the haemodynamic changes of pregnancy.
- The mWHO 2 risk criteria classifies cardiomyopathy with severe systolic LV dysfunction into Class IV and these patients have an extremely high risk of maternal mortality or severe morbidity.
- A proactive multidisciplinary approach, shared decision-making and good patient communication contributed to early detection of cardiac decompensation during the second trimester of pregnancy and allowed for patient optimization, delivery planning and good patient experience.
- Post-delivery is a high-risk period for these patients. Careful monitoring is required and consideration is needed on the feasibility of keeping these patients on delivery suite with HDU trained midwives versus management in an intensive care or cardiac care unit.

Key Learning Points



Optimum care for complex peripartum patients with cardiac disorders

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