A case of undifferentiated shock and hypoxemic respiratory failure in a pregnant patient with placenta previa and vasa previa

Hanna K. Mandl MD, Ifeoma Kamalu MD MBA, A. Taylor Thomas MD MPH, Elisa Walsh MD
Department of Anesthesiology, Massachusetts General Brigham, Boston, MA

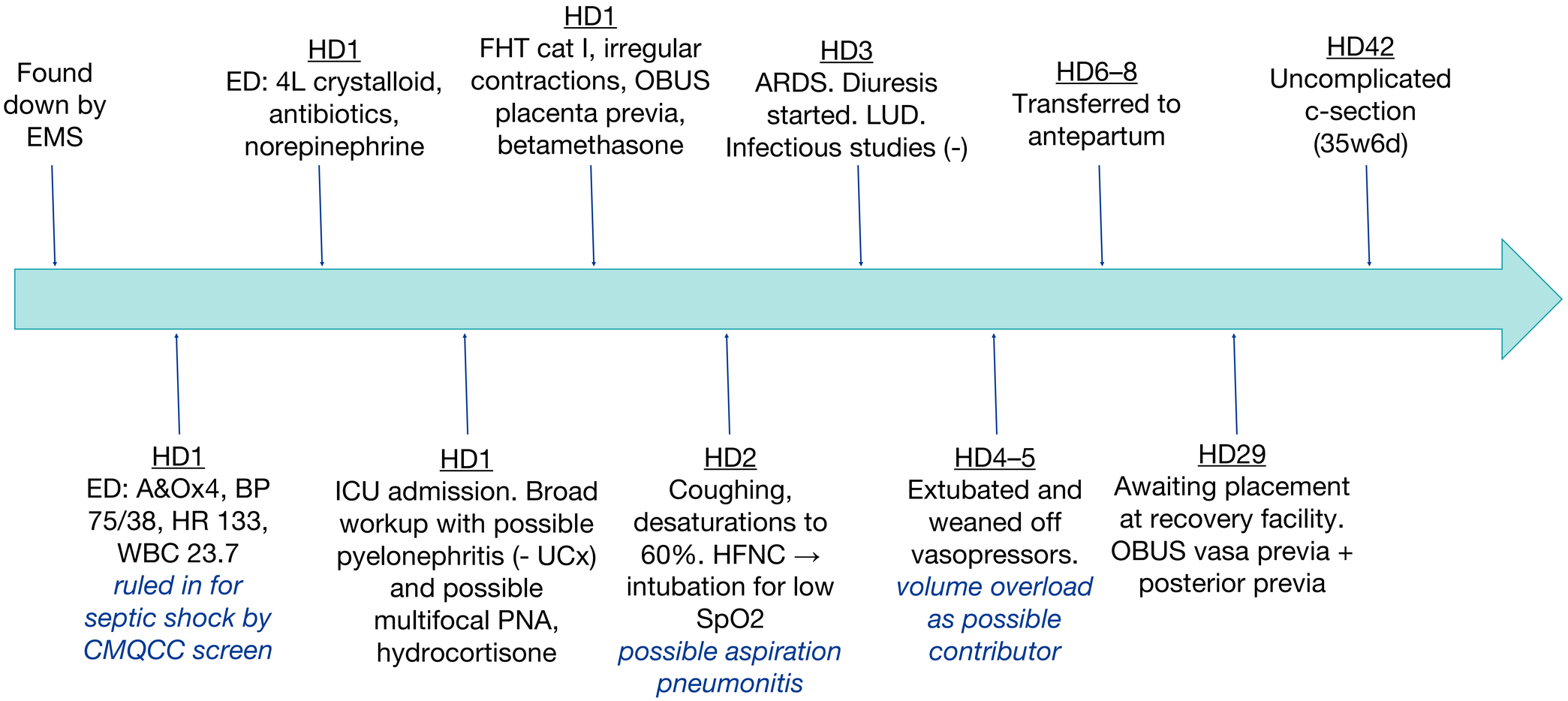
Background

- Obstetric shock is life-threatening and may be due to hemorrhagic, distributive, obstructive, or cardiogenic causes
- Timing of pregnancy specifically affects the etiology of shock
- Sepsis (particularly pyelonephritis), pneumonia, and non-obstetric causes predominate antepartum shock
- Sepsis, in particular, remains a leading cause of maternal mortality, accounting for nearly 14% of maternal deaths in the US

We present a case of undifferentiated shock in a pregnant patient with placenta previa and vasa previa.

Case Presentation

33F G9P2062 at 29w6d with PMHx of two prior vaginal deliveries, one D&C, active stimulant use disorder, housing instability, and SVT admitted to the ICU for management of undifferentiated shock.



Teaching Points: Undifferentiated Shock in Pregnancy

Key Maternal Management Considerations

Imaging
- Do not delay
- Minimize radiation

Risk Assessment
- Pregnancy-specific sepsis scores early

Antibiotics
- Within 1 hour
- Broad-spectrum
- >15% no source or organism

Vasopressors
- Norepinephrine (MAP ≥65)
- Add vasopressin 2nd line

Fluids
- 1–2 L initial bolus favored over 30mL/kg
- ↓ oncotic pressure ↑ third spacing
- Use dynamic measures

Steroids
- Consider IV hydrocortisone
- ≥4 hrs high vasopressor need

Fetal Safety

- Monitor FHT if viable
- Fetal distress may be early indicator of maternal decline
- Administer corticosteroids for lung maturation
- Use magnesium for neuroprotection cautiously (risk of vasodilation, ↑ toxicity with AKI)
- Delivery only if uterine source

References

Bauer M, et al. Obstet Gynecol. 2025. 2. Bridwell R, et al. West J Emerg Med. 2019. 3. Shields A, et al. Obstet Gynecol. 2023