OBSTETRICS PATIENT WITH LVNC CARDIOMYOPATHY UNDERGOES CESAREAN SECTION UNDER GA

Feras Alhourani, MD, MBA (CA-2)
Kalpana Tyagaraj, MD (PD)
Agnes Miller, MD (APD)
Maimonides Medical Center

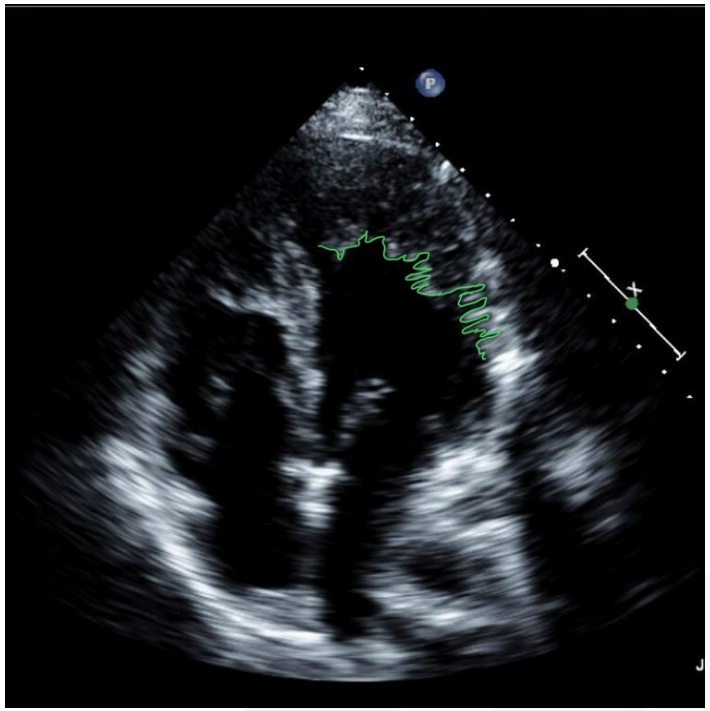
SOAP Society for Obstetric Anesthesia and Perinatology
SOAP 2025 ANNUAL MEETING

INTROUCTION

- **Rare Cardiac Challenge in Pregnancy:** Left ventricular noncompaction cardiomyopathy (LVNC) is a rare genetic disorder characterized by thick, sponge-like myocardium with prominent trabeculations.
- **Hemodynamic Complexity:** Increased preload and cardiac output during pregnancy heighten cardiac risks.
- **Collaborative Management:** Coordination between cardiology, MFM, and anesthesiology is vital.
- **Case Overview:** 20y G2P1 with LVNC underwent elective C-section under general anesthesia with successful outcomes.

THE CASE

- 20-year-old G2P1 female with a history of LV noncompaction cardiomyopathy (EF 41-45%) diagnosed during pregnancy.
- Cardiac function declined to EF 35% with dyspnea despite diuretic therapy.
- Managed with low-dose Carvedilol and close monitoring by cardiology and MFM.
- Underwent elective C-section at 37 weeks under general anesthesia and TIVA with arterial line, requiring low-dose norepinephrine and epinephrine.
- Intraoperative TEE showed improved EF (41-45%) post-delivery.
- Postpartum period was unremarkable.



DISCUSSION

- **LV Noncompaction Cardiomyopathy Overview:** Rare genetic disorder characterized by thick, spongy myocardium and deep trabeculations ratio >2.3. Diagnosis is typically late, but pregnancy can unmask symptoms due to increased preload and cardiac output.
- **Cardiac Management Challenges:** Pregnancy-induced volume overload may worsen LV function, as seen in this patient (EF decline from 41-45% to 35%). Multidisciplinary monitoring and use of beta-blockade (Carvedilol) helped maintain cardiac stability.
- **Anesthetic Considerations:** General anesthesia with TIVA chosen to maintain hemodynamic stability. Arterial line placed for continuous BP monitoring. Low-dose norepinephrine and epinephrine supported cardiovascular function during delivery.
- **Postpartum Cardiac Recovery:** Immediate improvement in EF post-delivery (41-45%) demonstrated reduced preload and afterload. Unremarkable postpartum period highlights the effectiveness of anticipatory management and tailored anesthetic strategy.