Peripartum cardiomyopathy (PPCM) has a reported incidence of about 10.3 patients per 10,000 live births.\textsuperscript{1} In India, an incidence of 1 per 1,374 live births has been reported.\textsuperscript{2} PPCM usually presents as left ventricular dysfunction in late pregnancy and immediately after delivery. Symptoms are often confused with that of normal pregnancy. Delay in diagnosis often contributes to poor outcomes. Our case was unique as, although the patient presented during the immediate postoperative period, there were no symptoms, other than heart rate variation. If echo had not been done, the patient may have landed into heat failure.

A 26-year-old female of G2P1L1 at a gestational age of 37 weeks + 5 days was admitted to a teaching hospital with labor pains. Her first and second trimesters were uneventful. Antenatal ultrasound scans were normal. In eighth month of pregnancy, she had low blood pressure at 80/50 mmHg and hence, underwent an echocardiogram, which showed normal values (EF - 72\%, fractional shortening - 42\%, left ventricular internal diameter - 40 mm). Afterwards, emergency cesarean section (CS) was planned at term for current pregnancy due to abdominal pain (Category-1; previous CS in labor). Informed consent was obtained. Aspiration prophylaxis was given. The patient was shifted to operation theatre in the left lateral position and standard monitors e.g., non-invasive blood pressure, pulse oximetry, three lead electrocardiography, were connected. Baseline vital signs were recorded as pulse rate -101/min, BP - 100/60 mmHg, SpO\textsubscript{2} - 99\% on room air. Intravenous access was secured and co-loading of Ringer lactate 20 ml/kg fluid was started. The patient was kept in left lateral position. Under aseptic precautions, L2 - L3 space identified, 23G spinal needle was inserted and 2 ml of inj. bupivacaine heavy 0.5\% was injected intrathecally. Once the T6 sensory level was achieved the surgery was started. Blood pressure was monitored every minute till baby was delivered, after which three-minute cycles were used. She had an episode of hypotension (80/50 mmHg) which responded to 12 mg of ephedrine. Oxytocin 10 IU were given. A baby of 3.23kg was delivered with APGAR scores of 8/10 and 9/10 at 1 and 5 min respectively. Inj. tramadol 50 mg IM was given for postoperative analgesia. Intraoperative blood loss was about 500 ml. After completion of surgery the patient was shifted to the recovery room with stable vital signs. 15 min after shifting she had bradycardia of 42 beats/min for which inj. atropine 0.6 mg IV stat was given, which improved the heart rate to 70-80 beats/minute. The patient was conscious, comfortable and was shifted to the postoperative ward after 1 hour. Her spinal sensory level was T10. The patient developed gradual onset of tachycardia of 130-140 beats/min after one hour of shifting. BP was 130/90. She was comfortable and pain free (VAS 3/10) and had adequate urine output. Tachycardia persisted after a fluid bolus of 250 ml and additional analgesia with fentanyl 50 µg IV. The unexplained tachycardia was evaluated with a 12 lead ECG and it showed poor R-wave progression, T wave inversion in V2 to V5, ST depression in V4, V5, and sinus tachycardia (Figure 1).

Cardiology opinion was sought and bedside echocardiography revealed the presence of regional...
Bedside echocardiography of our patient revealed the presence of regional wall motion abnormality, hypokinetic inferior wall and septum, mild mitral regurgitation, mild LV dysfunction, EF- 46%, good RV function, left ventricular fractional shortening - 22%, end-diastole dimension 40.4 mm, which satisfy the diagnostic criteria of PPCM (Figure 2).

Management of PPCM includes ionotrope support, diuretics, vasodilators, ACE inhibitors and prophylactic anticoagulants. Regional anesthesia can be tried in case of compensated heart failure with stable vitals. Epidural analgesia helps to mitigate hemodynamic response. Patients with decompenased heart failure are managed under general anesthesia. Emergency airway cart for intubation and defibrillator with all the emergency ionotrope drugs should be kept ready in all PPCM suspected cases.

PPCM has varying presentations and is associated with many life-threatening complications like cardiogenic shock, unstable arrhythmias and thromboembolism.6 Hence it is important to anticipate PPCM in patients showing varying hemodynamic parameters like unstable heart rate and blood pressure in the postoperative period even though they are asymptomatic.

We managed the patient with inotropes, ivabradine and low molecular weight heparin, which helped in improving her vital parameters and prevented further life-threatening complications. PPCM patients have a high chance of relapse in subsequent pregnancy. Clinicians should be vigilant to rule out deadly complications.

References


