

Delivery of Mother and Child with Osteogenesis Imperfecta

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- 27 year old G1P0 37w2d with OI type III, asthma and multiple remote preexisting fractures and skeletal deformities presented for delivery
- BMI was 49.9, 3 feet and 3 inches and she was wheelchair bound
- Underwent a planned primary c section for fetal and maternal OI and breech presentation
- Two ultrasound guided large bore IVs were placed with gentle tourniquet application. A combined spinal and epidural was performed with ultrasound assistance, using 27G spinal and 17G epidural needles, with coload of fluid
- Spinal medications used were 5.25 mg of hyperbaric bupivacaine, 15 mcg Fentanyl and 150 mcg preservative free morphine at the L4-5 interspace
- After placement, severe hypotension with T3 level occurred, prompting significant vasopressor use
- Fetus delivered via vertical skin incision with gentle traction, apgars of 6 and 9
- Fetus had multiple in utero fractures with no new fractures from delivery
- Epidural catheter activated to maintain comfort during surgery
- Estimated blood loss was 500 mL. She tolerated delivery well and was discharged on postpartum day 4

Labs	Day of delivery	Postpartum Day 1
Hgb (g/dL)	11.6	9.4
Hct (%)	34.2	27.6
Plt x 10 ³	216	160

- The incidence of osteogenesis imperfecta in pregnancy is 1 in 250,000 to 300,000 [1]
- Parturients with osteogenesis imperfecta present unique anesthetic challenges including poor respiratory reserve with a gravid uterus, short stature, scoliosis, hypermetabolism, hyperthermia, platelet dysfunction, difficult intubation and fragility of bones, blood vessels and skin [2, 3]
- Type III is the most severe type of OI. Early multidisciplinary approach is crucial. Cesarean sections have been under general and neuraxial anesthesia. Risks and benefits of each must be individualized

1. Key T, Horger E. Obstet Gynecol 1978; 51: 67-70.
2. Cozzolino M, et al. Archives of Gynecology and Obstetrics 292; 1153-1159 (2016).
3. Vogel TM, et al. Anesth Analg. 2002;94:1315–1317.