

Noisy Breathing in the Labor Suite

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Introduction:

Stridor development in pregnancy is uncommon

Rarely Stridor in pregnancy may require a surgical airway

Pregnancy-induced physiological changes may complicate stridor in pregnancy

Background:

- 39-year-old obese female (IUP 35 weeks) with OSA, a known large multi-nodular goiter and hyperthyroidism treated with Methimazole
- Hospitalized for pain control due to a sickle cell vaso-occlusive crisis
- Pregnancy complicated by fetal isoimmunization requiring percutaneous blood sampling and fetal transfusion procedures
- History of recurrent miscarriages
- History of wheezing and coughing episodes since COVID infection 6 months prior to admission.
- 5th hospital night the patient developed bronchospasm that partially resolved with bronchodilator administration
- ENT evaluation: normal glottic anatomy but evidence of infra-glottic expiratory stridor
- Cardiothoracic surgery consulted for possible need for surgical airway
- Patient comfortable only in a semi-sitting position due to progressive airway swelling
- Thyroid Ultrasound confirmed retrosternal and mediastinal extension of goiter



CT of the head and chest one day postpartum

Demonstrates extension of the goiter further into the mediastinum with compression of adjacent vessels and trachea

Next Afternoon:

Urgent Cesarean Section required for recurrent fetal heart rate decelerations

- Cardiothoracic surgery called to be in OR in the case of need for urgent airway intervention or cardi venous bypass or ECMO establishment
 - Brought all CPBP and ECMO equipment from distant location
- Patient agreed to an epidural anesthetic; which was placed and gradually activated
- Head of the bed in the OR was maintained at 30 degrees elevation
- Delivery of vigorous preterm baby

Postoperative course:

- Uneventful recovery from the cesarean section and some resolution of stridor
- New CT of head and chest obtained (on previous slide)
- 1-week postpartum patient had thyroidectomy performed by thoracic surgery
 - Uneventful intubation with propofol /succinylcholine /video laryngoscope
- Subsequent readmissions for repeat sickle cell crisis and urticarial episodes with another chest CT showing recurrence of anterior mediastinal mass

