A Case of Tracheal Stenosis in the Second Trimester of Pregnancy

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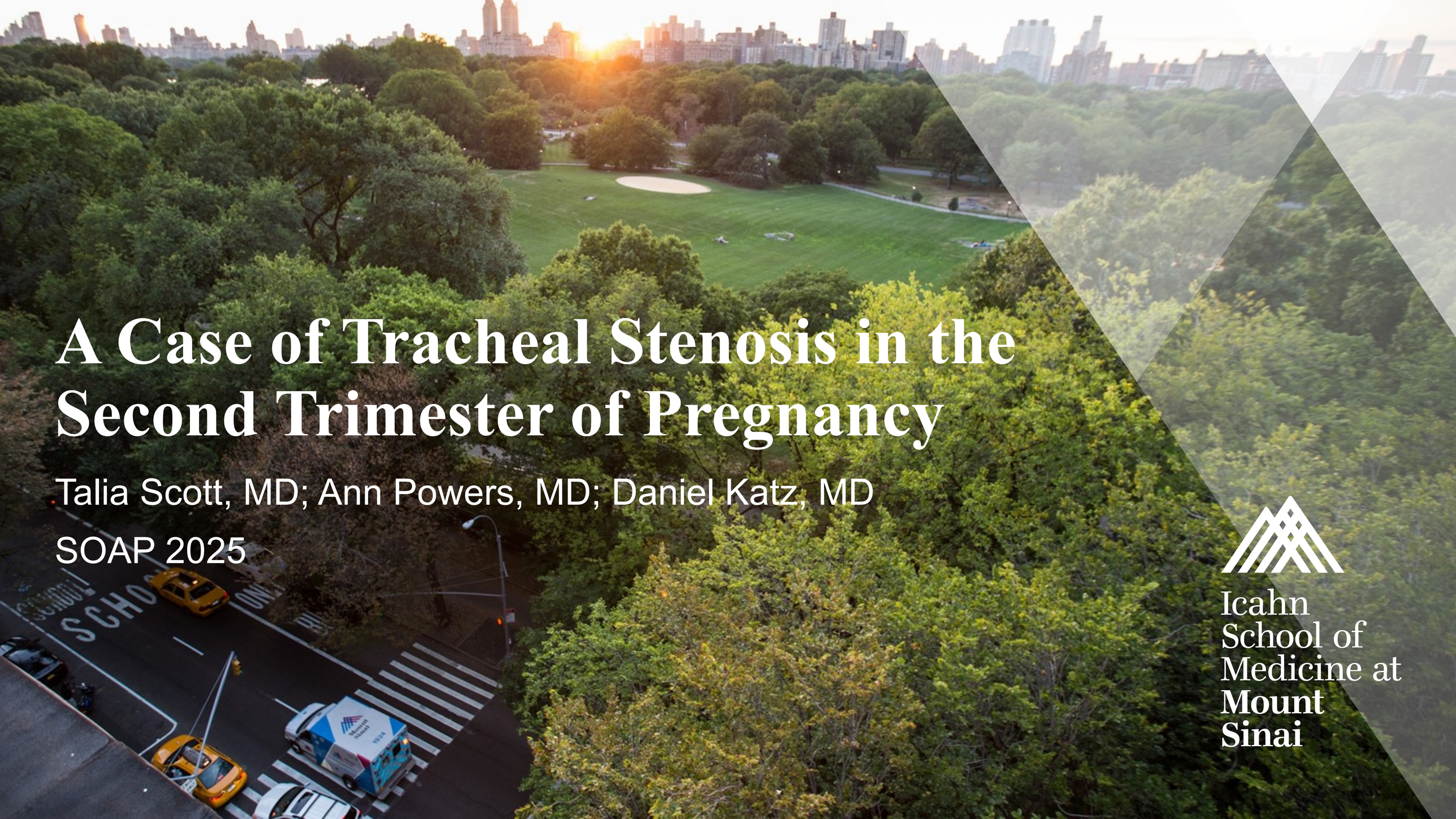

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Background

Tracheal Stenosis

- Narrowing of the trachea that can lead to respiratory distress

Changes in Pregnancy

- Airway gradually becomes more edematous over course of pregnancy
  - Likely due to fluid retention
  - Volume of pharynx decreases
  - 34% increase in Mallampati 4 scores from 1st to 3rd trimester (1)
- Dyspnea commonly develops
  - Increased respiratory drive
  - Increased oxygen consumption

1. Pilkington S, Carli F, Dakin MJ, et al. Increase in Mallampati score during pregnancy. Br J Anaesth. 1995;74(6):638-642.

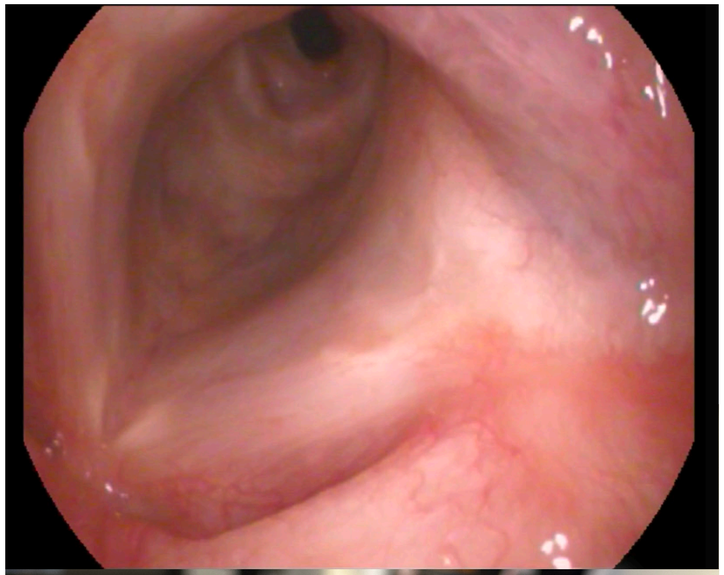
Case

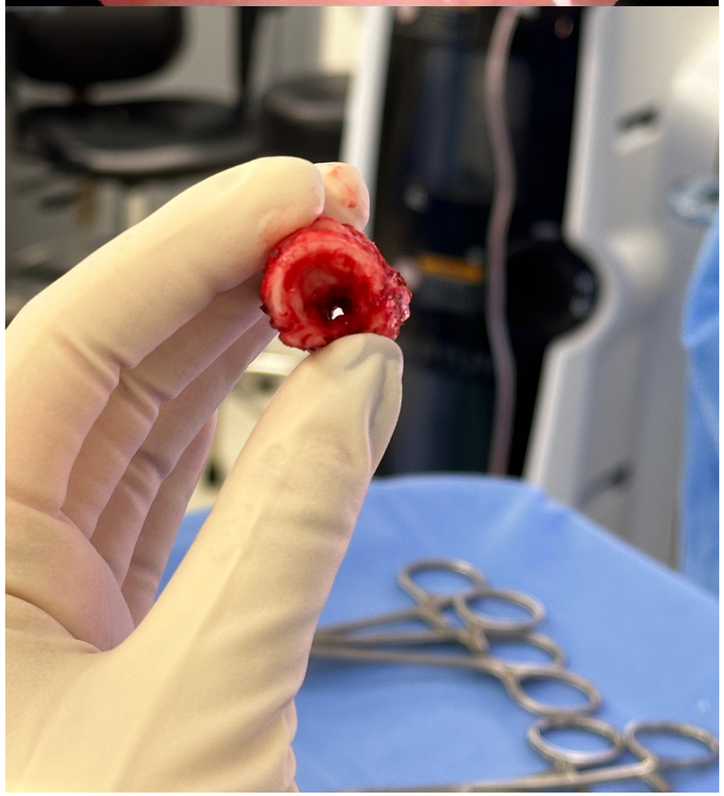
19 yo F, G1P0, with history of seizure disorder due to multiple traumatic intubations for status epilepticus

- Most recent intubation was 8 months prior to presentation
- Balloon dilations x 2
- Local hospital refused case as she was pregnant

Scheduled for diagnostic laryngoscopy, bronchoscopy, lysis of tracheal scar, steroid injection, balloon dilation

- On day of surgery, 18 weeks pregnant, presented with worsening respiratory distress
- OB anesthesia raised concern of long-term airway management
- Patient presented with options and opted for tracheal resection
- Airway exam unremarkable
- Difficult to pass ETT, ultimately secured with 4.5 mm ETT
- Patient discharged postop day 8 without respiratory issues





Teaching Points

Airway stenosis

- Can be tracheal or subglottic
- Symptoms commonly worsen over pregnancy (2)

Management

- Must be tailored to individual patient
- Patient with recurrent stenosis requiring frequent dilations would probably continue to need repeat dilations over the course of her pregnancy
  - Increasing risk as pregnancy progresses
  - Risk of potentially difficult intubation in event of emergency surgery
- Tracheal stenosis during pregnancy is rare but with a multidisciplinary approach a successful outcome can be achieved

2. McCrary H, Torrecillas V, Conley M, Anderson C, Smith M. Idiopathic Subglottic Stenosis during Pregnancy: A Support Group Survey. Ann Otol Rhinol Laryngol. 2021;130(2):188-194.

Thank You/Any Questions?

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