

# Severe Subglottic Stenosis; The Third Trimester

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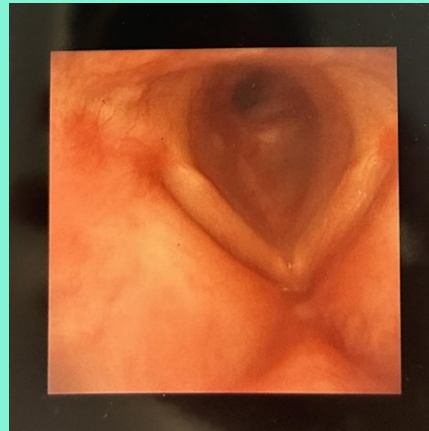


## Introduction

Evaluation and management of subglottic stenosis in pregnancy is challenging. It involves a multidisciplinary team (MDT) approach between anaesthetists, ENT surgeons plus obstetric and theatre teams when planning the pre-operative, intra-operative and postoperative care.

## Description

A 39-year-old para 2 at 36 weeks gestation, was scheduled for urgent microlaryngoscopy and dilatation of her known iatrogenic subglottic stenosis. She had multiple previous subglottic dilatations and now presented symptomatic in her third trimester with audible stridor and increasing shortness of breath. Flexible nasendoscopy by ENT surgeons revealed severe subglottic stenosis of approximately 5 mm. Airway examination was otherwise normal. This is a unique case, with limited similar case reports.



## Discussion

The MDT agreed that midwives check the fetal heart rate before and after theatre and the obstetric team would be available if required. ENT surgeons were scrubbed and ready before induction of anaesthesia. Aspiration prophylaxis, omeprazole on the ward and sodium citrate in theatre, was given and suction ready. Routine monitoring as per Association of Anaesthetists guidance was initiated. The patient was preoxygenated, in head up and left lateral tilt position, using high flow nasal oxygenation (HFNO) at 30 l/min increasing to 70 l/min on induction. Anaesthesia was induced with 1 mg midazolam, 100 mcg fentanyl, propofol TCI at 4-6 mcg/ml and 50 mg rocuronium. Antiemetics were administered plus IV paracetamol. Propofol TCI was continued for maintenance alongside HFNO for apnoeic oxygenation during this tubeless case. Surgical suspension laryngoscopy revealed severe narrowing in the subglottis. Sequential balloon dilatation of the subglottic stenosis was successful up to 15 mm. Muscle relaxant was reversed with 500 mg sugammadex and confirmed using train of four monitoring. Jaw thrust was maintained until return of spontaneous ventilation. Total apnoeic time was 7 minutes and 45 seconds, saturations remained over 95%. Postoperatively, there was significant improvement in symptoms. She was reviewed and discharged home on day of surgery. It was noted that a size 7.0 endotracheal tube would be suitable if required in an emergency. She was reviewed at anaesthetic antenatal clinic and delivered a healthy baby boy by elective caesarean section under spinal anaesthesia at 39 weeks gestation.

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