

Progressive dyspnoea in pregnancy: Idiopathic subglottic stenosis masquerading as asthma

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Introduction

Dyspnoea in pregnancy is common and frequently attributed to physiological changes or asthma. However, upper airway pathology is rare and may be overlooked, increasing the risk of delayed diagnosis and potential peripartum airway complications.

Subglottic stenosis (SGS) is a form of laryngotracheal narrowing occurring within 1.5 cm below the vocal cords, with approximately 20% of cases being idiopathic. Idiopathic subglottic stenosis (iSGS) predominantly affects women of childbearing age and can present diagnostic and management challenges during pregnancy, labour, and anaesthesia. [1]

Most cases of iSGS are identified during pregnancy, with many patients initially misdiagnosed as having asthma. Dyspnoea (94%) and stridor (55%) are the most common presenting symptoms, and approximately two-thirds of patients require airway intervention during pregnancy. [2]

Case Report

A 38-year-old gravida 3 para 1 woman presented at 37+1 weeks' gestation with progressive noisy breathing, exertional dyspnoea, the sensation of something in her throat and voice changes.

She had been diagnosed with asthma during a previous pregnancy and treated with inhaled corticosteroids and salbutamol.

Despite this, her symptoms worsened, particularly with exertion and speech, and she reported no nocturnal symptoms.

Spirometry demonstrated normal lung volumes with features suggestive of upper airway obstruction.

She was reviewed in a maternal medicine clinic at 39 weeks, prompting anaesthetic and ENT referral. Flexible nasendoscopy at 39 weeks demonstrated approximately 60% subglottic stenosis with symmetrical vocal cord movement. A diagnosis of idiopathic subglottic stenosis was made.

She underwent awake subglottic dilatation under local anaesthesia with steroid injection, increasing airway diameter from 6 mm to 14.7 mm.

A multidisciplinary birth plan was made and she had an uncomplicated spontaneous vaginal delivery at 40 weeks.

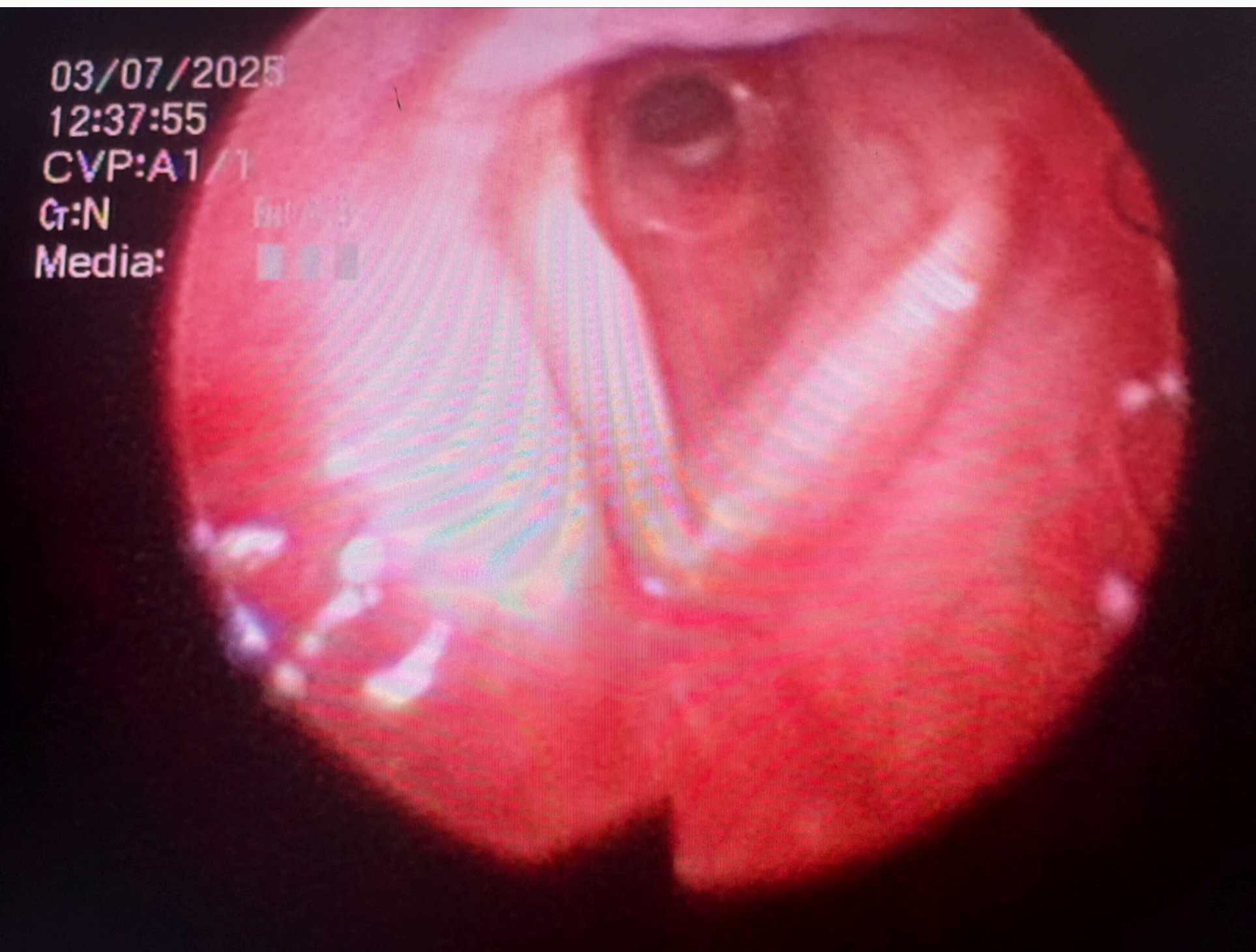


Figure one: Flexible nasendoscopy image demonstrating approximately 60% subglottic narrowing consistent with idiopathic subglottic stenosis prior to intervention.

Discussion

This case highlights the importance of reconsidering alternative diagnoses when respiratory symptoms in pregnancy do not respond to standard asthma therapy.

iSGS can mimic asthma and may worsen during pregnancy due to hormonal and physiological changes.

Evidence from the literature demonstrates that misdiagnosis is common and that many patients require intervention during pregnancy or postpartum.

Recognition of features suggestive of upper airway obstruction, such as exertional symptoms, voice changes, and abnormal spirometry, is crucial. Early multidisciplinary involvement enabled timely diagnosis and intervention in this case, optimising airway safety and facilitating a safe vaginal delivery.

Increased awareness of iSGS in pregnancy is essential to reduce maternal morbidity and anaesthetic risk.

References

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2. Barbera JP, Mossayebi MH, Khanuja K, et al. Idiopathic subglottic stenosis in pregnancy: A systematic review. Int J Gynaecol Obstet. 2025 Dec 5. doi:10.1002/ijgo.70719.