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The Clinical Picture

A woman with a swollen uvula

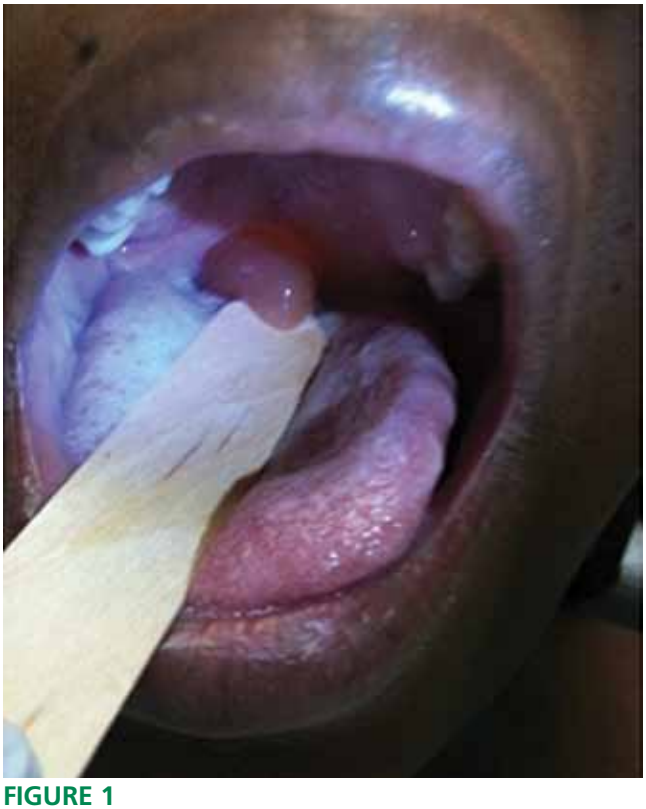

FIGURE 1

A 39-year-old woman on patient-controlled analgesia with morphine after cesarean delivery suddenly developed shortness of breath. On examination, the uvula was notably edematous, pale, and translucent, with no sign of erythema (FIGURE 1). The previous night, when the morphine was started, she had mild pruritus, which responded to treatment with oral diphenhydramine (Benadryl).

Given the extent of the uvular edema, emergency intubation was performed, and epinephrine and corticosteroids were given.

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Q: Which is the most likely diagnosis at this point?

- ☐ Hereditary angioedema
- ☐ Infection causing epiglottitis masquerading as uvular swelling
- ☐ Opioid-induced uvular hydrops
- ☐ Myxedematous infiltration due to hypothyroidism

A: Opioid-induced uvular hydrops is the most likely diagnosis in this case, although it is rare. The most common side effect of opioids is constipation; others include lethargy, delirium, and sedation.

Hereditary angioedema is unlikely in this patient, as it usually presents in childhood or adolescence and there is usually a family history. Also, her cesarean delivery was done under regional anesthesia, which requires no oral or uvular manipulation and so cannot cause uvular swelling. In the absence of pain, fever, or signs and symptoms of pharyngitis, infection was unlikely. And she had no history of hypothyroidism.

UVULAR HYDROPS

This condition may be caused by opioid-induced direct degranulation of mast cells and basophils, inciting an inflammatory response.

Differential diagnoses include:

- Hereditary angioedema
- Effects of other drugs (angiotensin-converting enzyme inhibitors, cocaine, nonsteroidal anti-inflammatory drugs)
- Infection (*Haemophilus influenzae*, *Streptococcus pneumoniae*)
- Trauma (intubation during surgery)
- Myxedematous infiltration due to hypothyroidism

- Granulomatous infiltration due to sarcoidosis.

When the patient's condition has been stabilized, several outpatient tests may help narrow the differential diagnosis:

- Serum complement levels, of which the most reliable and cost-effective screening test for hereditary angioedema is a serum C4 level
- A serum thyroid-stimulating hormone level to rule out hypothyroidism
- Skin and lymph node biopsy (if skin lesions or lymphadenopathy is present), and chest radiograph to rule out sarcoidosis
- A urine drug screen and a skin-prick test for opioids (even though a negative skin test does not exclude opiate sensitivity).

OUR PATIENT'S COURSE

Our patient was discharged and underwent further outpatient evaluation. At discharge, she was advised to avoid opioids in the future.

SUGGESTED READING

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