

# Tonsillectomy: 3,000 years old and still evolving

## Moderators:

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## Objectives:

1. Recognize the similarities and differences in guidelines from the American Academy of Otolaryngology, American Academy of Pediatrics, and ASA regarding sleep-disordered breathing, obstructive sleep apnea, and tonsillectomy.
2. Describe the role of polysomnography in assessing pediatric patients.
3. Understand the sleep-disordered breathing spectrum and its perioperative anesthetic implications.
4. Understand the methods of post-tonsillectomy pain control and the controversies in the various methods of treatment.

**Stem Case:** Ava is a 4 year-old female with sleep disordered breathing scheduled to undergo tonsillectomy and adenoidectomy. Her PMH is significant for secondary enuresis. She is not on any medications and has no known drug allergies. She has never had surgery before.

Preoperatively, Ava's vital signs are: BP 92/64, HR 100, RR 22, and SpO<sub>2</sub> on room air of 99%. She weighs 28 kg and is 39 inches tall which places her at >99<sup>th</sup> and 50<sup>th</sup> percentile, respectively.

## Stem Case Continued with Questions for Discussion:

1. What additional questions would you ask her parents?
2. How accurate are routine history and physical exam questions at diagnosing OSA?

A STBUR questionnaire was administered to Ava and her parents. They report that she snores loudly, seems to struggle to breathe at night, and that they have witnessed her stop breathing during the night.

3. How does this information change how you perceive her perioperative risk?
4. Would it change your perception of her risk if they reported that in addition to the 3 aforementioned symptoms she ALSO snores more than half the time when sleeping and seems to wake up feeling unrefreshed in the morning?

A review of her records shows that she has not undergone polysomnography as she and her family live many hours from the nearest sleep center.

5. Do you think it is safe to proceed with her anesthetic or do you think that a polysomnography study is indicated?
6. Do alternative diagnostic options exist for patients in whom it is difficult to obtain polysomnography?

You decide to proceed with Ava's anesthetic for tonsillectomy and adenoidectomy. Her parents ask you if you think they are making the right decision to proceed with surgery.

7. What is the evidence regarding outcomes for tonsillectomy in children suffering from sleep disordered breathing (SDB) and OSA?

Her parents tell you that the ENT surgeon wants to “wait and see” how Ava does in recovery before making a decision of whether to admit her postoperatively or not. They mention that a child of a family friend underwent tonsillectomy on an outpatient basis and they are anxious about why Ava isn’t automatically a candidate for outpatient surgery.

8. What do you think about this procedure being performed on an outpatient basis in Ava?
9. Are there specific historical or exam findings that would push you to demand a postoperative admission?
10. At your institution, are there protocols or criteria employed preoperatively to determine which children are planned postoperative admissions?

Her parents also mention that their family friends said their child was in a lot of pain following his tonsillectomy and ask what you will do to “make sure she has no pain” postoperatively.

11. What are the anesthetic implications of SDB? Of severe obesity?
12. What are the different pain control options available?
13. Is there any evidence for superiority of one analgesic approach over another?
14. How will you counsel Ava’s family regarding her perioperative risk and expectations for pain control?

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