

## ABSTRACT

**Objective:** The purpose of this poster is to present a case of a patient with Diffuse Idiopathic Skeletal Hypertrophy (DISH) with severe cervical osteophytes who developed post intubation dysphonia and dysphagia with aspiration due to bowing of the vocal folds in the face of existing poor epiglottic inversion from his cervical osteophytes. He was treated successfully with in office vocal cord injection medialization

## BACKGROUND

Diffuse Idiopathic Skeletal Hyperostosis (DISH) is a rheumatologic condition characterized by abnormal bone formation or calcification. These primarily occur along the anterolateral aspects of the vertebrae. In severe cases, DISH can cause dysphagia and stridor.

## MATERIALS & METHODS

**Study Design:** Case Report

**Methods:** The patient's case is reviewed in detail with attention to otolaryngology office visit notes, videostroboscopy, swallowing studies, speech and swallow therapy office notes, as well as telephone conversations with the patient and family.

## RESULTS

**Results:** Patient CB exhibits a case of dysphonia and dysphagia with aspiration of liquids secondary to presbylarynx and post intubation bowing of the vocal folds in the context of Diffuse Idiopathic Skeletal Hypertrophy (DISH), with associated pre-existing osteophytes, which prevented retroversion of the epiglottis. The patient's symptoms appeared acutely after intubation for a herniorrhaphy. The patient had an increase in hoarseness and evidence of aspiration of liquids on Barium Swallow. He also showed poor inversion of the epiglottis, which

was obviously present prior to the intubation due to the pre-existing osteophytes. Despite this, the patient did not previously have trouble phonating or swallowing, indicating a well-compensated state. After the intubation, videostroboscopic evaluation revealed bowing of the vocal folds with a marked glottal gap. The patient failed to respond to speech therapy. A trial of in office vocal cord injection was recommended and he agreed to undergo the procedure. The procedure was successful as his symptoms, videostroboscopic examination, and repeat modified barium swallow results all showed improvement compared to the pre-operative studies. The patient's voice improved and he had a much easier time with swallowing. The patient continued to show sustained improvement months after. This shows that, in a patient who had previously compensated well to a known anatomic anomaly, a simple procedure such as an intubation for a hernia repair could limit the patient's ability to continue compensating resulting in a previously controlled state to suddenly become symptomatic.

## CONCLUSIONS

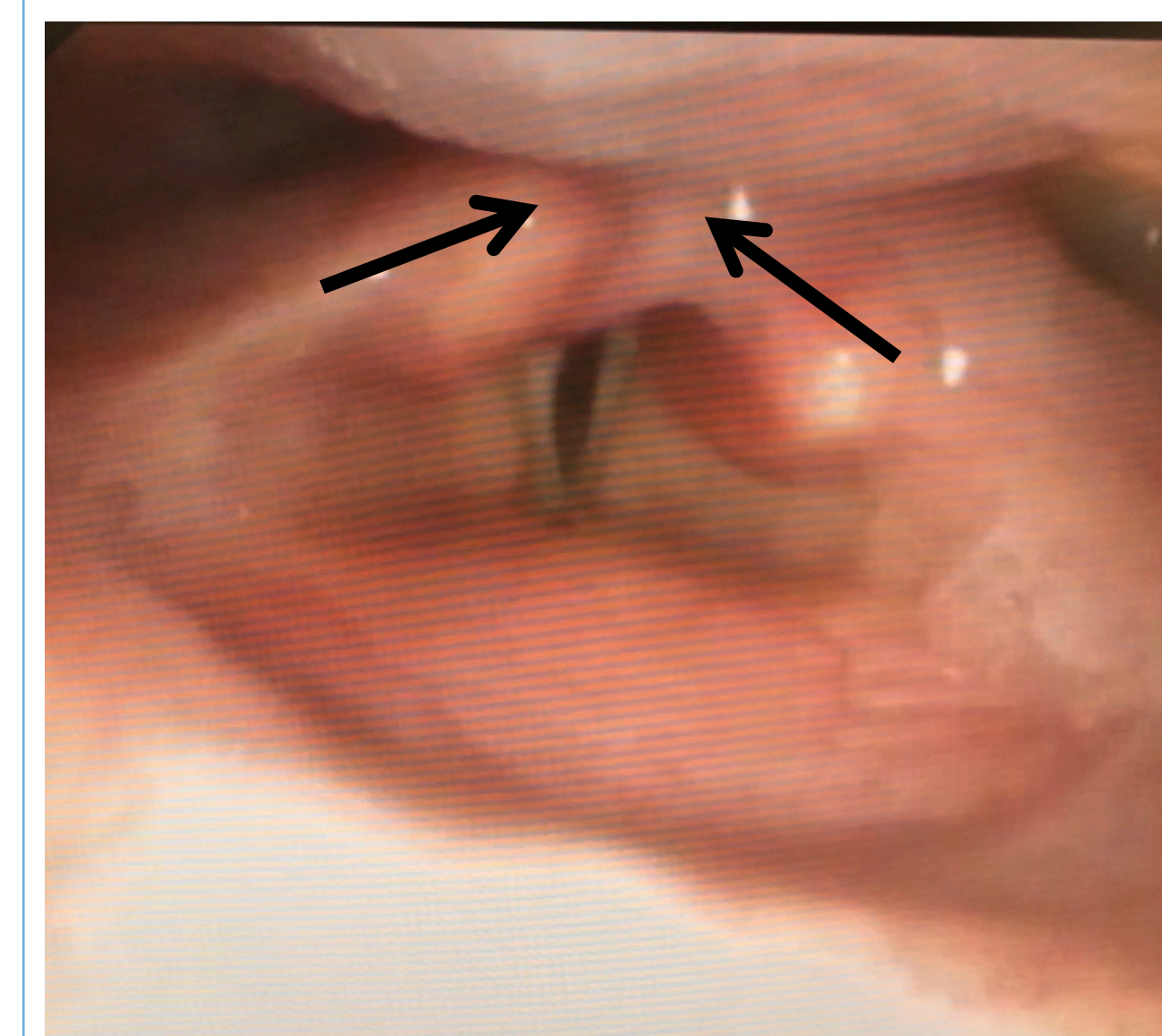
**Conclusions:** This case demonstrates that in a patient who was initially compensating well to a pre-existing compromised swallow due to DISH, even a simple procedure like intubation for a herniorrhaphy, can lead to disruption of the vocal folds, which are the primary line of defense against aspiration. In this case, medialization of the vocal folds by in office injections was able to improve his voice quality as well as successfully allow closure of the vocal folds and reduce the aspiration events. This effect was sustained and appears to be a long-term improvement.

## REFERENCES

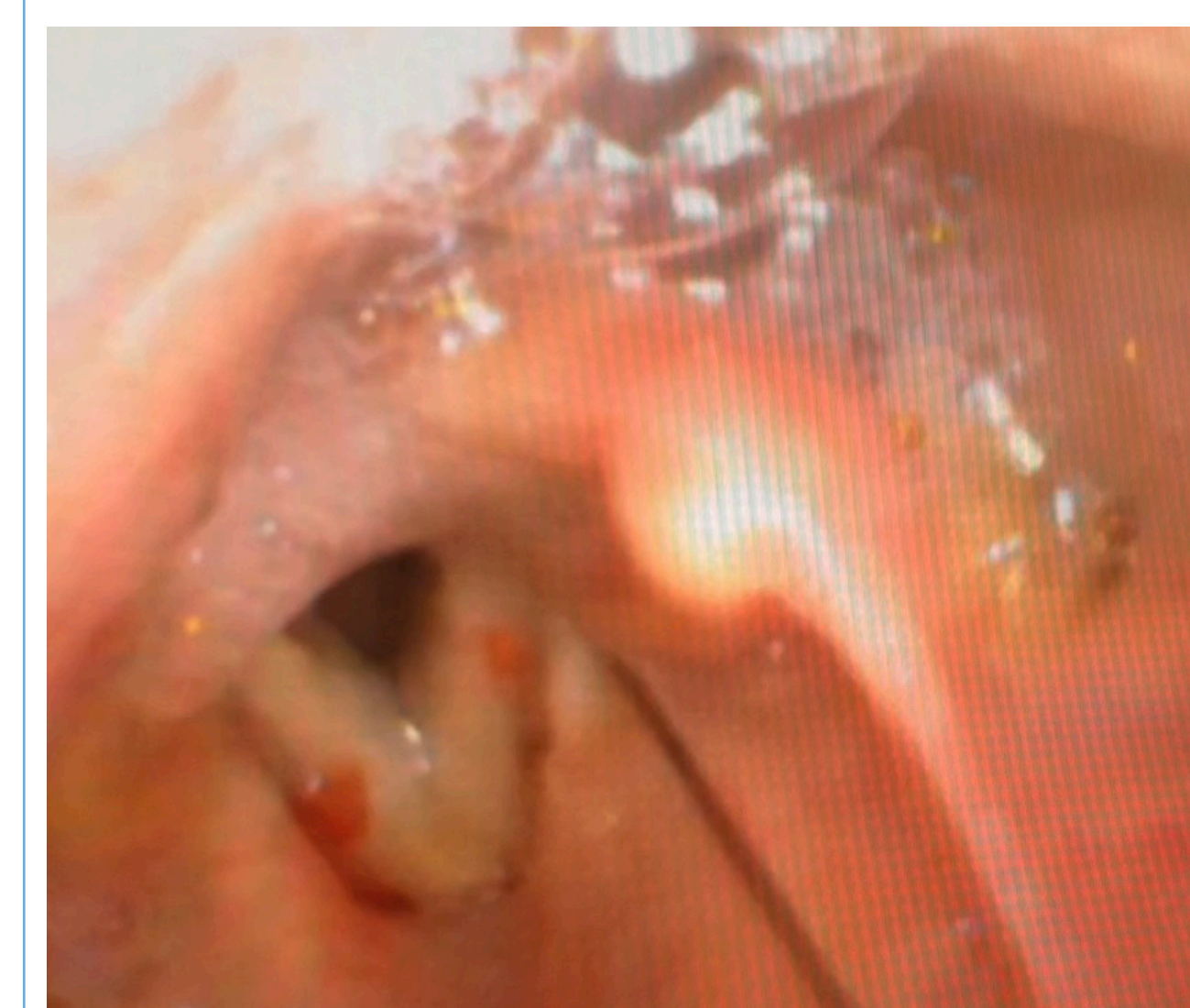
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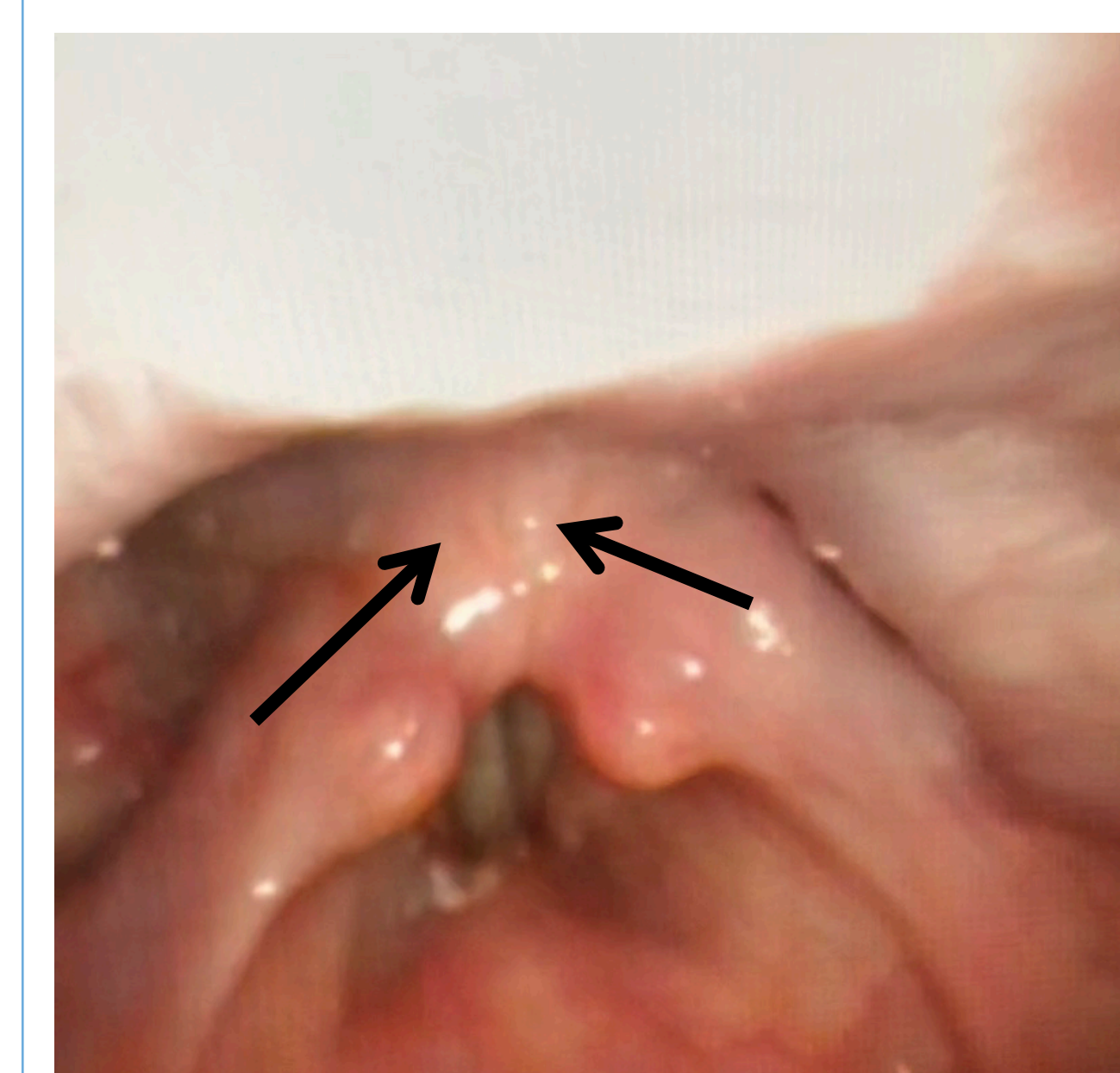
**Figure 1:** Flexible naso-laryngoscopy examination shows presence of osteophyte preventing complete epiglottic closure



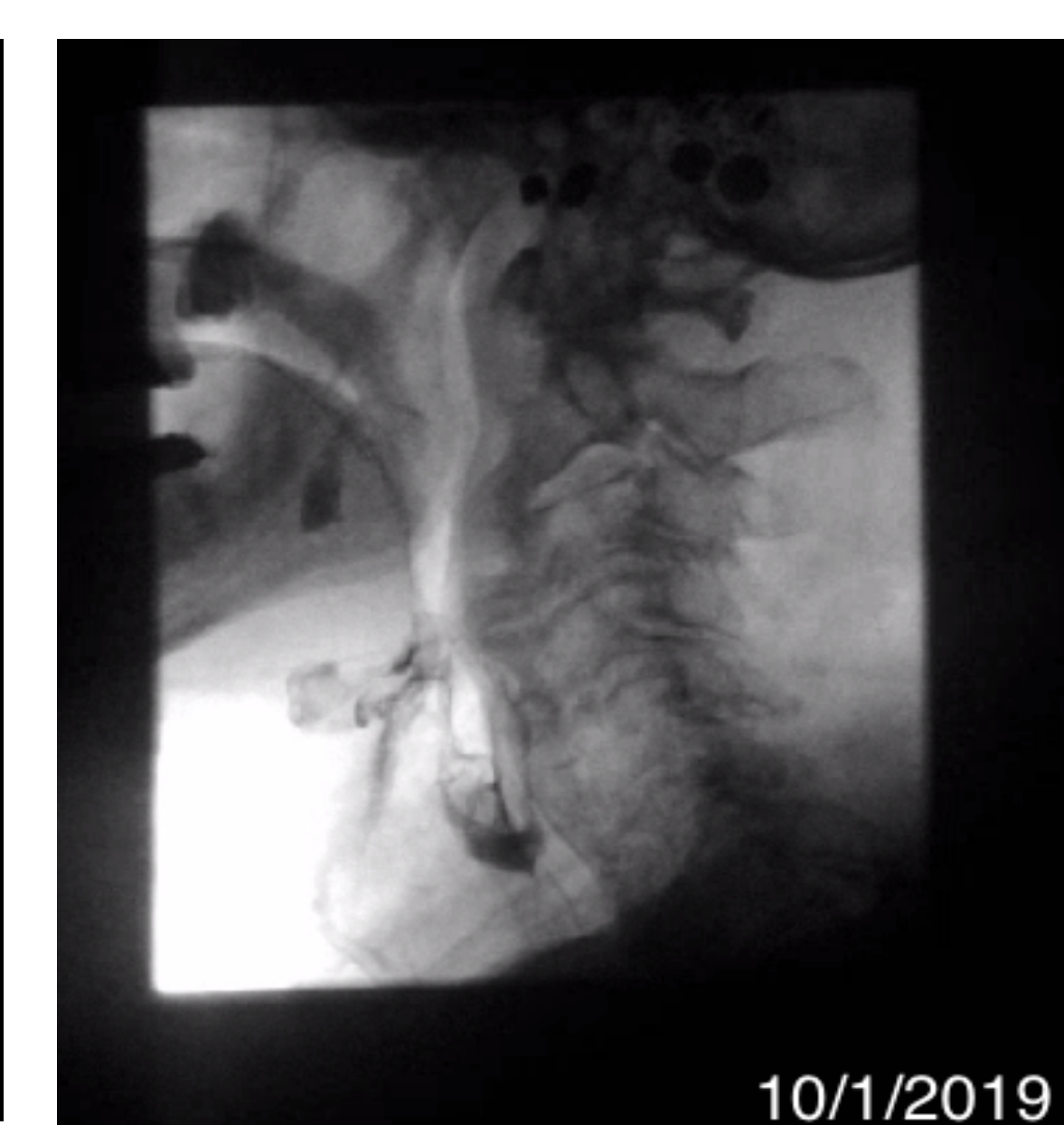
**Figure 2:** Flexible nasolaryngoscopy examination. Arrows shows arytenoid adduction. Despite attempted adduction, there is presence of vocal cord bowing preventing complete glottic closure



**Figure 3:** Flexible nasolaryngoscopy examination status post injection of Renu gel bilaterally



**Figure 4:** Flexible nasolaryngoscopy examination shows post – injection arytenoid adduction now results in complete glottic closure – compare to Figure 2.



**Figure 5:** In both A and B, the pharyngeal phase is marked by diffuse idiopathic skeletal hyperostosis (DISH) along the cervical C2-C6 causing incomplete epiglottic inversion during the swallow response. There is presence of penetration and aspiration with nectar liquids. In comparison to study in 7/2019, this is significantly improved in 10/1/2019.