

**Case Study: November 12, 2024**

A 62-year-old male has noticed his voice has gotten hoarse slowly over the last year. He then notices a lump on the side of his left neck that has gotten bigger over the last two months.

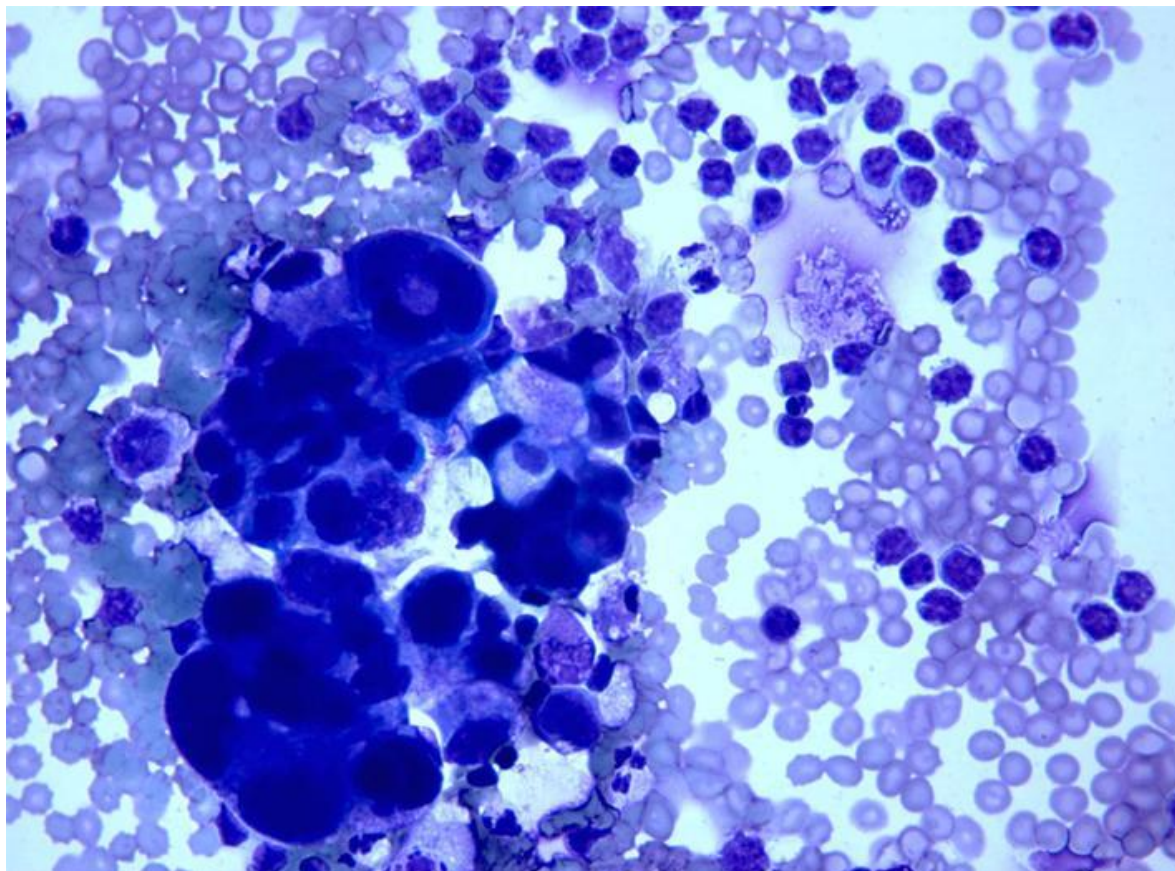


He is referred to see a head and neck physician (otolaryngologist). The physician does a thorough physical, and an exam with a scope to look at the throat (laryngoscopy). This reveals the mass seen here.

- Why do you think the patient got hoarse?



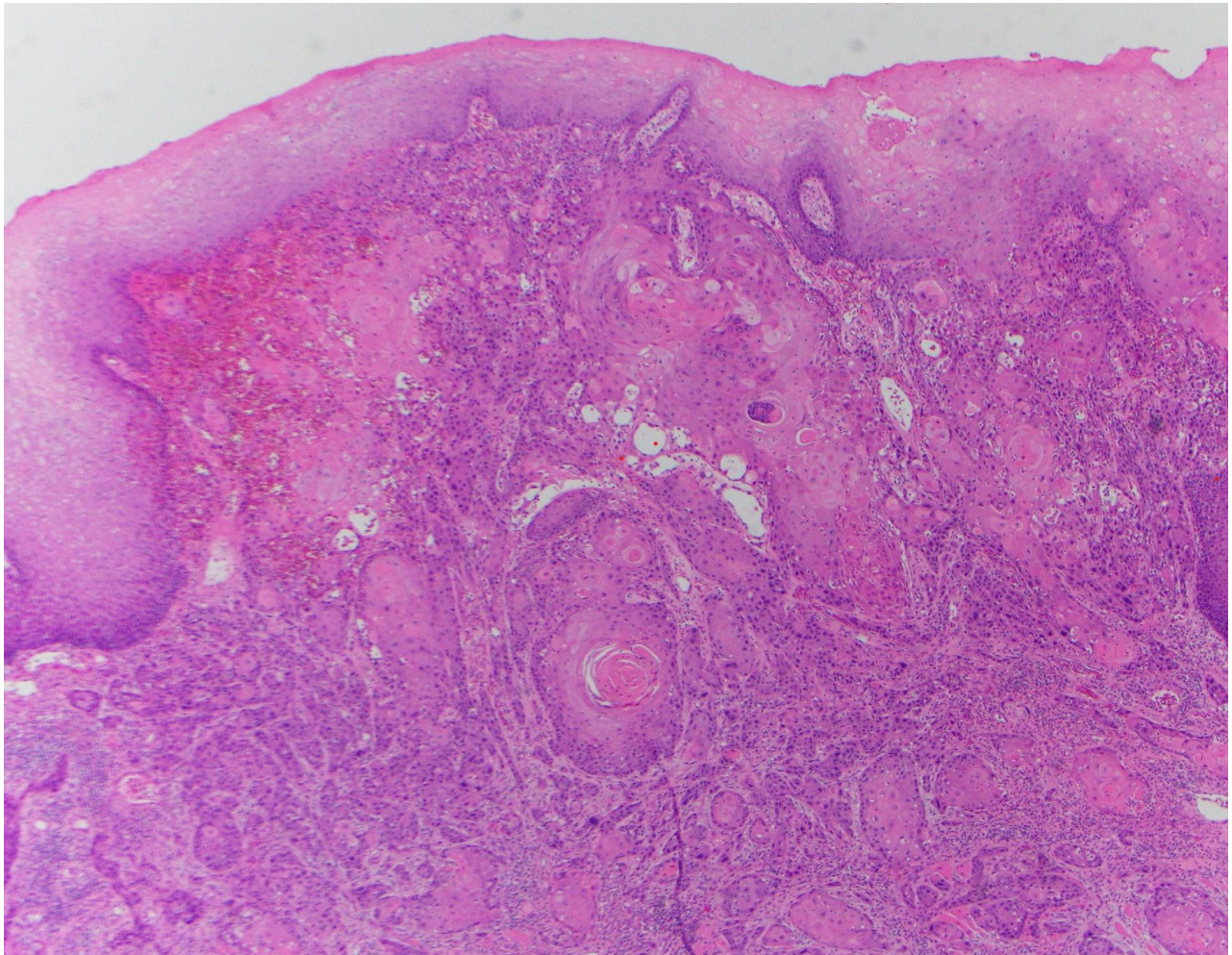
The physician opted to do a fine needle aspiration (FNA) of the neck lump, and the material that was removed through the needle is shown after it was stained with the standard procedure.



- How many different types of cells do you see?
- Do any cells look abnormal to you?
- Do you know what kind of tissue this represents?
- How did the tumor get there?
- Why do you think the physician did an FNA of the neck mass but did not sample the throat mass?

The patient undergoes surgery to remove the throat and separate neck mass. These specimens are sent to the pathology laboratory for standard processing, staining with hematoxylin and eosin (H&E), and microscopic analysis by the pathologist.

Throat mass (H&E, 40x magnification)

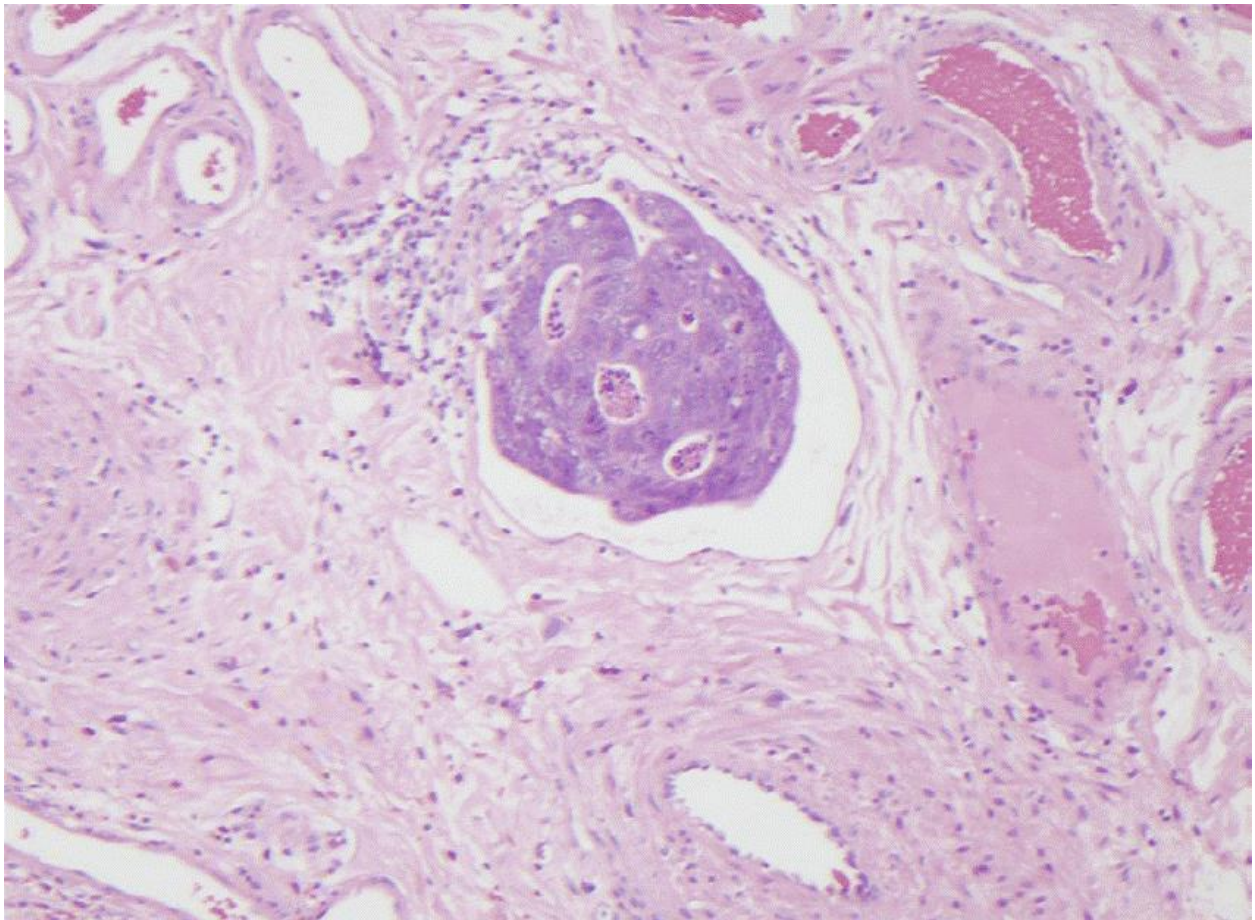


- Where is the normal epithelium?
- Where are the abnormal tumor cells?

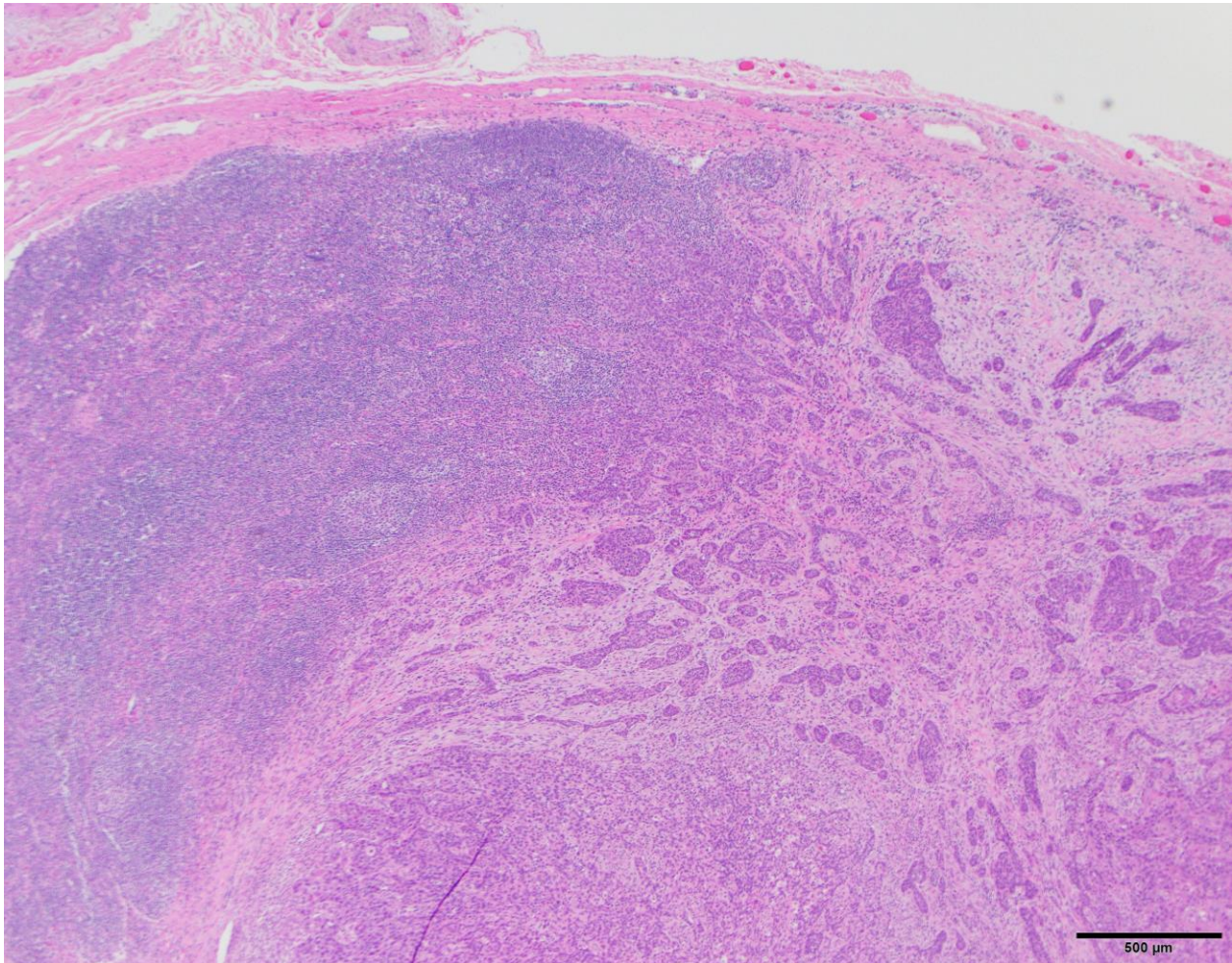


Throat mass (H&E, area around the tumor, 400x magnification)

- Do you see any blood vessels?
- Where are the abnormal tumor cells?



Separate neck mass (H&E, 100x magnification)



- What structure is this?
- Can you spot the tumor?

The pathologist assesses the extent of the tumor and finds that the surgeon completely removed it all (“negative margins”) and that there was tumor in 3 neck lymph nodes.

- Do you think the patient needs any more treatment?