

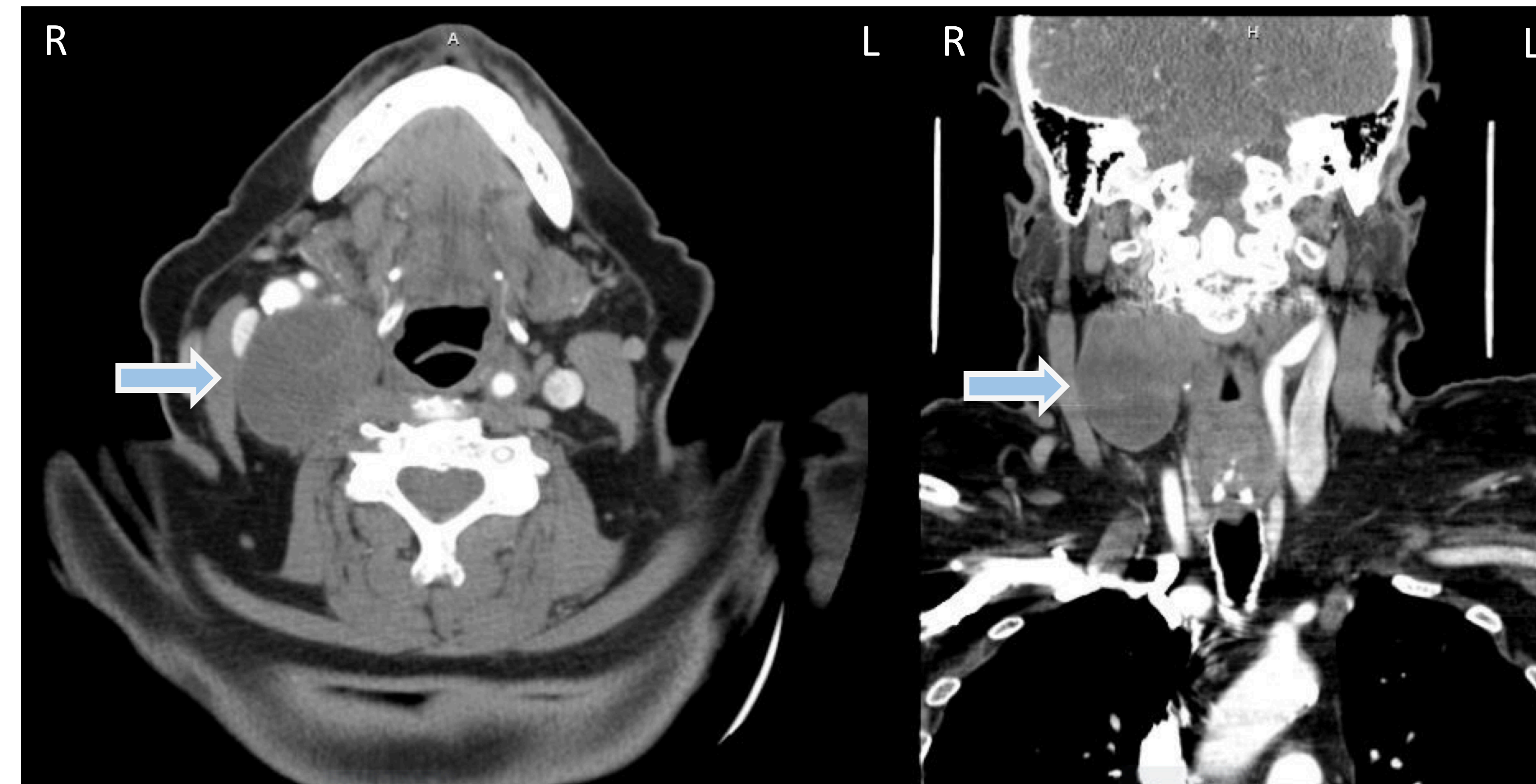
## INTRODUCTION

- Schwannomas result from a well-circumscribed neoplastic proliferation of Schwann cells that are generally associated with peripheral nerves
- In the neck, schwannomas most often arise from the vagus nerve or superior cervical sympathetic chain
- Cervical sympathetic chain (CSC) schwannomas can mimic the physical and radiologic findings of carotid body tumors
- Treatment is surgical resection, though expectant management is often the best strategy in the absence of neural deficits
- Post-operative complications of cervical sympathetic chain schwannoma resection include Horner's syndrome (almost inevitable) and First Bite Syndrome

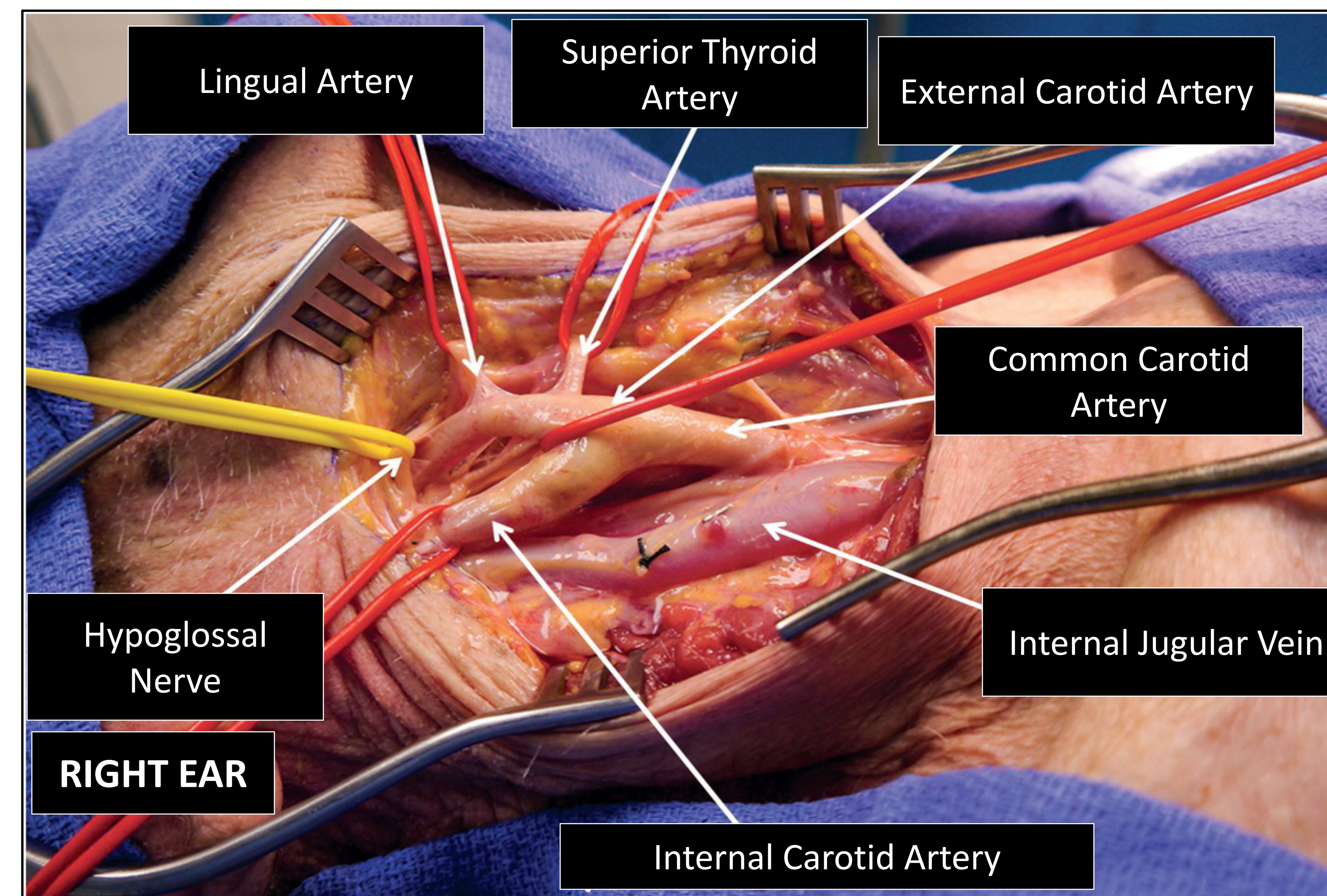
## CASE PRESENTATION

- An 80-year-old female presented with a 7-year history of an enlarging neck mass followed serially over time with moderate growth
- Mass was firm and non-tender, progressively causing locally compressive symptoms including bilateral neck pain, dizziness, dysphagia, and hoarseness
- Flexible fiber-optic laryngoscopy revealed R vocal cord (VC) sluggishness with poor abduction
- CT demonstrated the mass as measuring 3.6 x 3.5 x 4.9 cm with close adherence to the R carotid artery (**Fig. 1**)
- Mass excision and R neck dissection was performed, revealing a mass attached to a nerve bundle (perhaps the cervical sympathetic chain) and free from the jugular vein, carotid artery, and CN 10 (**ie Fig. 2**)
- After the operation, the patient had normal tongue mobility, intact CN function, slight ptosis of the R eye without miosis, and R VC weakness that resolved on post-operative day #5
- One month post-operatively, patient complained of discomfort in her mouth and jaw on initiating a meal, consistent with First Bite Syndrome

## IMAGES



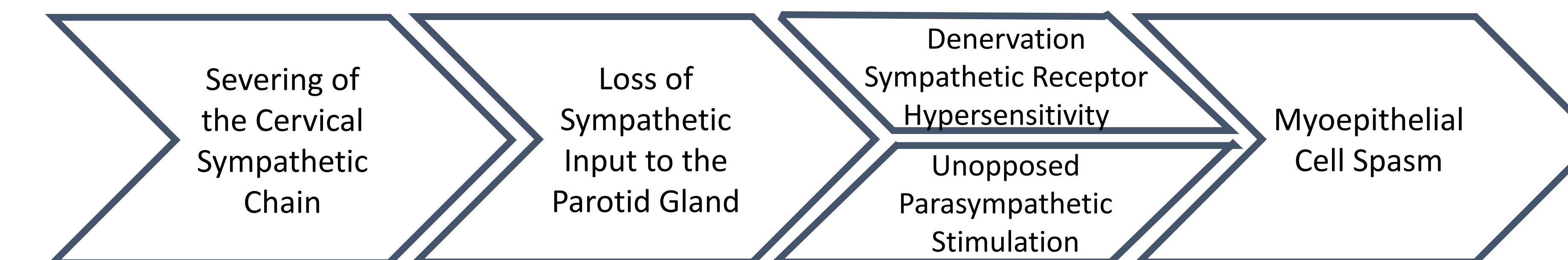
**Fig. 1.** Pre-operative CT imaging revealing a mass measuring 3.6 x 3.5 x 4.9 cm with close adherence to the R carotid artery.



**Fig. 2.** Example of an open surgical field during a R neck dissection

## DISCUSSION

- First Bite Syndrome is a known complication after parapharyngeal space surgery and has also been reported in patients with parapharyngeal space malignancies prior to surgical intervention
- Typical Presentation:
  - Ipsilateral pain in the parotid area with the first bite of food
  - Pain lasts approximately 5 seconds
  - Pain gradually (not completely) subsides with continued mastication
- Proposed Mechanism of Injury: "Sympathectomy"



- Proposed Treatments:
  - Dietary modification: consumption of bland foods to avoid increased salivary stimulation
  - gabapentin, carbamazepine, amitriptyline, and NSAIDs
  - Surgical resection of parasympathetic innervation (removal of Jacobson plexus or auriculo-temporal nerve up to the foramen ovale)
  - Botulinum Toxin Type A injections (*unsuccessful in our patient*)
  - Total parotidectomy
- Majority of patients have resolution over time

## CONCLUSION

- In First Bite Syndrome, destruction of the sympathetic chain superior cervical ganglion or the sympathetic post-ganglionic supply to the parotid gland causes severe parotid pain when food is first introduced into the mouth
- Supportive palliation is often the chosen therapy for patients as current treatment modalities have limited efficacy
- Majority of patients have gradual resolution over time