GRAND ROUNDS (September 28, 2018)

Ferrolino/Singson/Tongol/Dulnuan

DEPARTMENT OF OTORHINOLARYNGOLOGY
PHILIPPINE GENERAL HOSPITAL

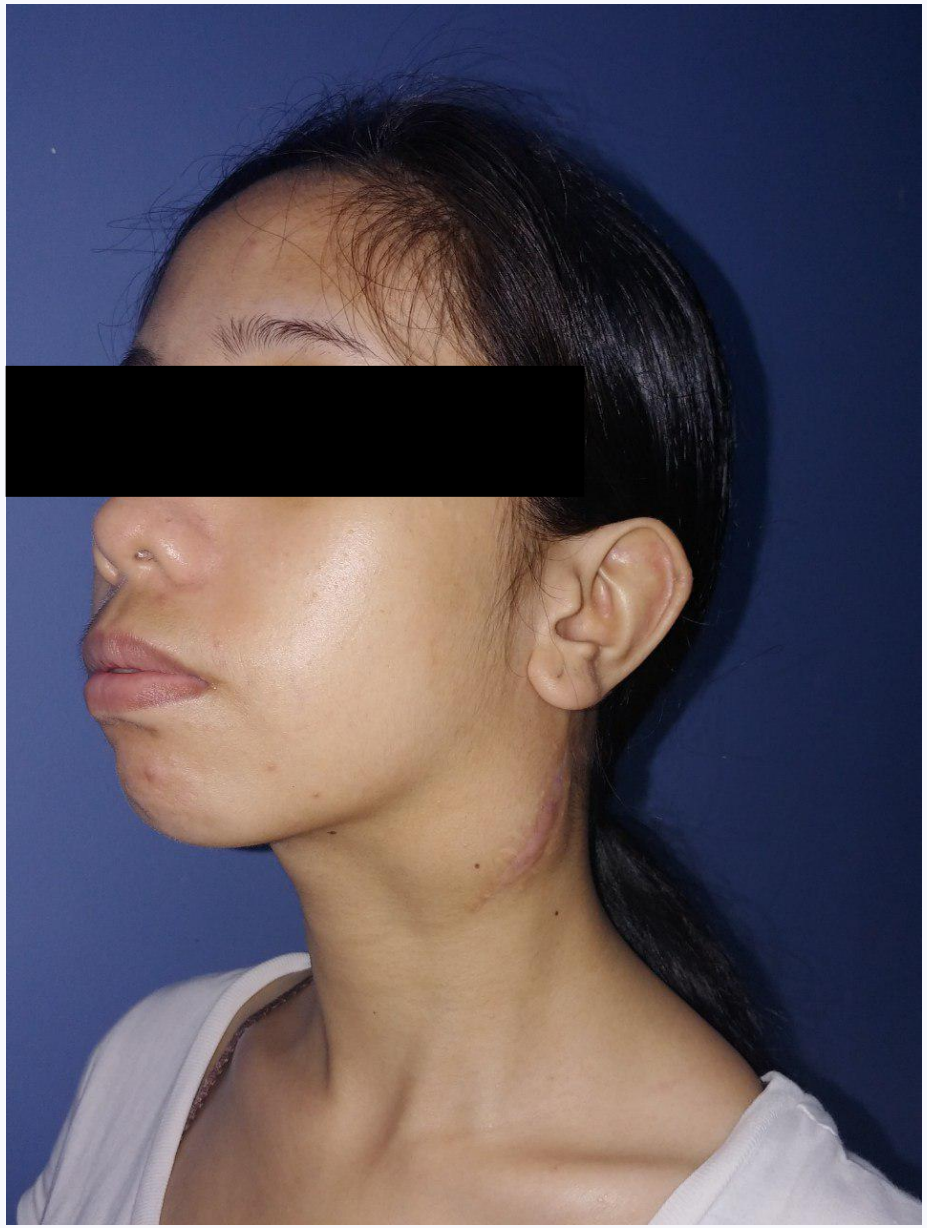
VISION

The Department of Otorhinolaryngology shall be an internationally recognized center of excellence in the field of Otorhinolaryngology and Head and Neck Surgery

MISSION

The health needs of the Filipino shall be its prime consideration.

It shall provide excellence and leadership in the different aspects in Otolaryngology – Head and Neck Surgery by teaching, providing exemplary clinical practice and dynamically pursuing relevant researches beneficial to the community in an environment guided by moral, ethical and spiritual values.



General Information

- CR
- 24/F
- Tonsuya, Malabon
- Housewife

Chief Complaint

Lateral neck mass, left

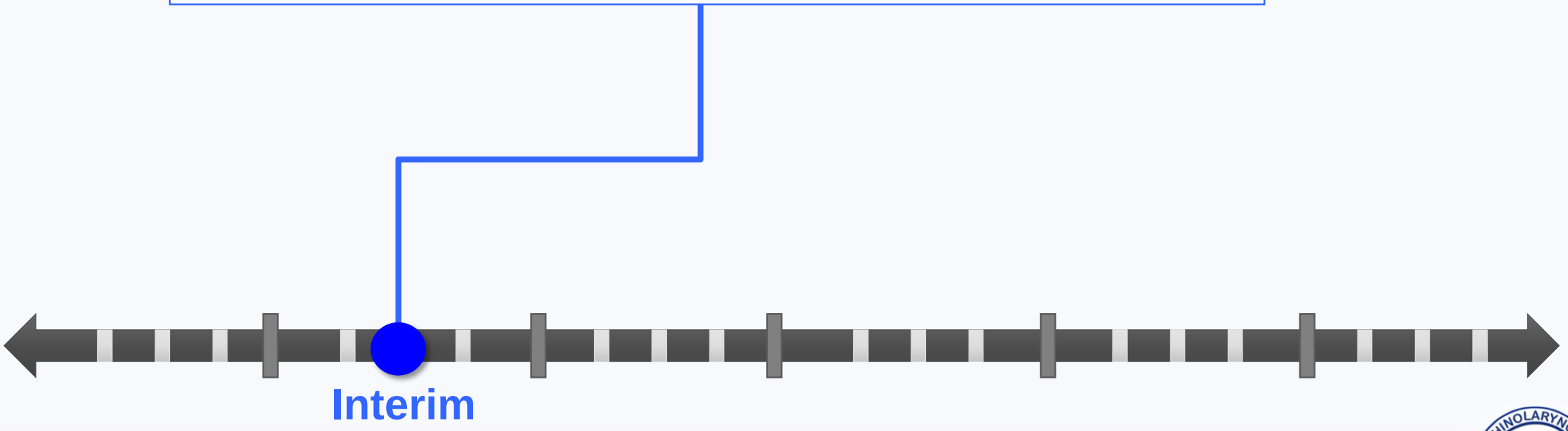
History of Present Illness

2 years PTC, the patient palpated a nontender, movable left lateral neck mass around the size of a *kalamansi*, with no associated symptoms of weight loss, fever, night sweats, dyspnea, dysphagia, hoarseness, cough. Patient sought consult at a local health center where workup was requested; however, patient did not comply and was lost to follow up.

September 2016

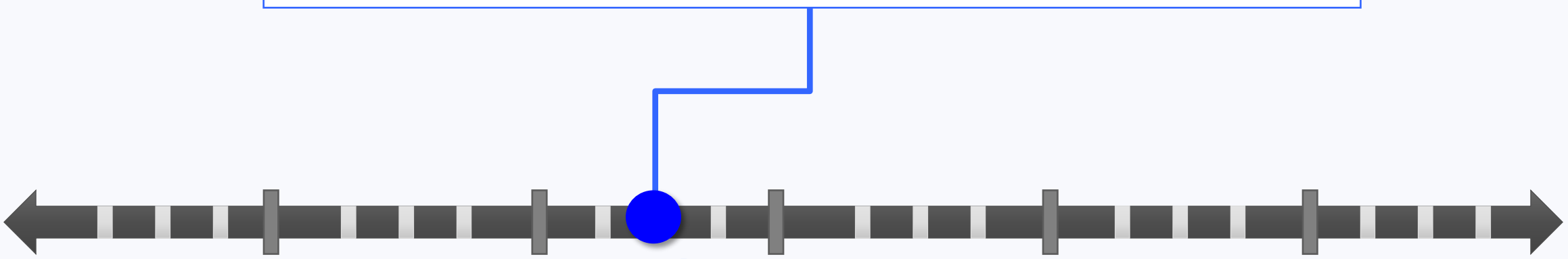
History of Present Illness

- In the interim, patient noted gradual enlargement of the mass, still with no associated symptoms.



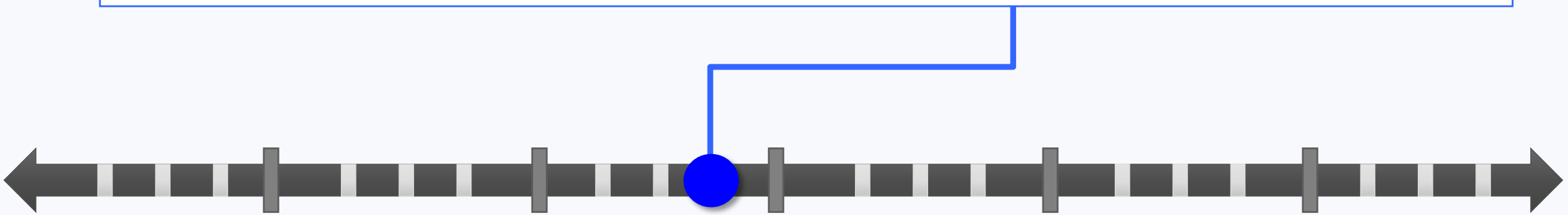
History of Present Illness

1 year PTC, patient sought consult at a local hospital due to the persistence of the mass. Workup was requested. Chest Xray was unremarkable. FNAB revealed hemorrhagic results; thus, patient was advised incision biopsy, revealing a schwannoma. Patient was then advised to undergo excision.



History of Present Illness

- 9 months PTC, patient underwent neck exploration; the mass was allegedly difficult to resect, prompting the surgeon to defer excision of the mass. She was advised to have a CT scan done and was eventually referred to the OPD for further management. Patient was subsequently seen at the LBEN clinic where she was advised excision of the mass, hence this admission.



Review of Systems

(-) fever
(-) cough
(-) colds
(-) weight loss
(-) headache
(-) numbness

(-) trismus
(-) facial pain
(-) nausea/vomiting
(-) epigastric pain
(-) change in bowel movements
(-) dysuria

(-) easy fatigability
(-) heat intolerance
() palpitation
(-) tremors
(-) BOV

Past Medical History

- no cancer, hypertension, diabetes mellitus, asthma, heart disease
- no previous surgeries
- no allergy to food or medications

Family Medical History

- no cancer, hypertension, diabetes mellitus, asthma, heart disease
- no family history of similar condition

Personal/Social History

- Housewife
- (-) smoking
- (-) alcoholic beverage drinking
- (-) illicit drug use

PHYSICAL EXAMINATION

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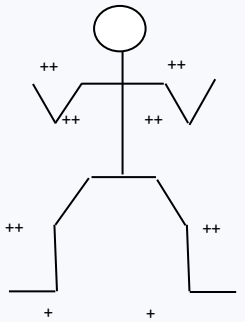
SYSTEMIC PE

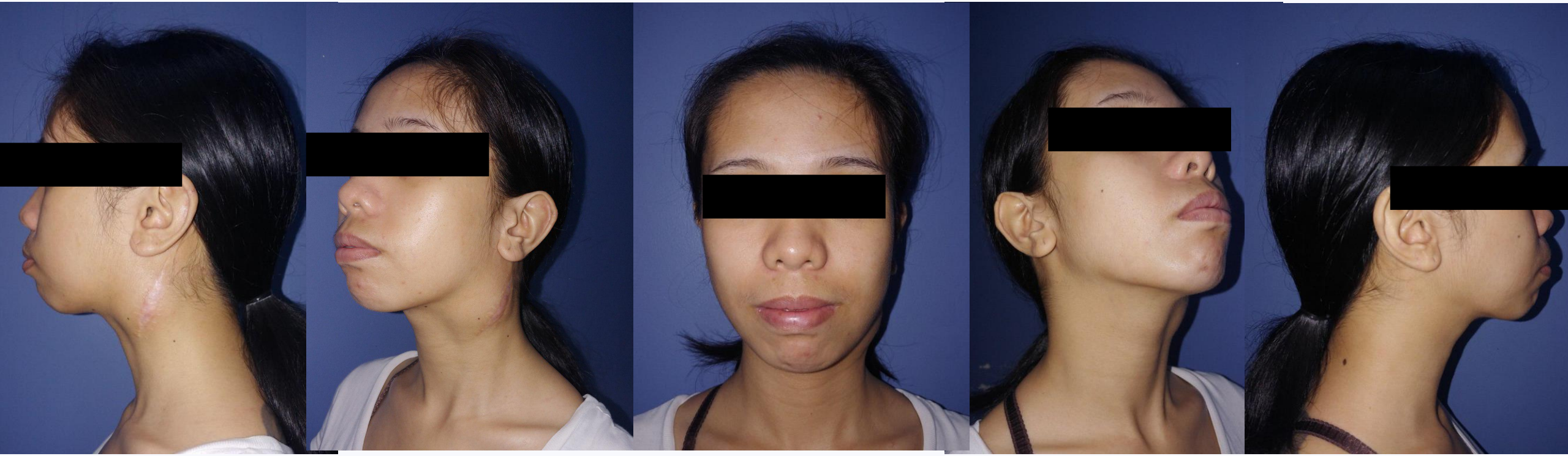
- **VITAL SIGNS:**
  BP 120/80mmHg, HR 76, RR 20, Temp 36.3
- **GENERAL:** conscious, coherent, ambulatory, not in cardiorespiratory distress
- **CARDIAC:** adynamic precordium, normal rate with regular rhythm, no heaves/lifts/thrills, no murmurs
- **PULMONARY:** symmetrical chest expansion, resonant on percussion, clear breath sounds
- **ABDOMEN:** globular abdomen, normoactive bowel sounds, soft, nontender, (-) masses
- **EXTREMITIES:** full and equal pulses, pink nail beds, good capillary refill time, (-) axillary and inguinal lymphadenopaties
- **SKIN**: no lesions

NEUROLOGIC PHYSICAL EXAMINATION

- Alert, conversant, oriented to name, place and time
- Pupils 3mm equal, reactive to light, VA 20/20 OU
- Midline primary gaze, Full EOMS, (-) ptosis
- Intact V1-V3
- (-) Facial palsy
- Weber midline, Rinne AC>BC AU
- Symmetrical palatal elevation, (+) gag
- Good shoulder shrug
- Tongue midline, (-) atrophy
- Motor strength 5/5 on all extremities
- Sensation 100% on all extremities
- (-) Nuchal rigidity, (-) Kernig's, (-) Brudzinski
- (-) dysmetria, (-) Romberg, normal gait



HEAD & NECK EXAMINATION



6x5.5x2.5 cm well defined, firm, nontender mass, level II, left, moves laterally and craniocaudally
(+) 5.5 cm hypertrophic scar over the mass
(+) paresthesia over the lower half of the left ear
(-) pulsations (-) bruits
(-) paroxysmal cough on manipulation of the mass

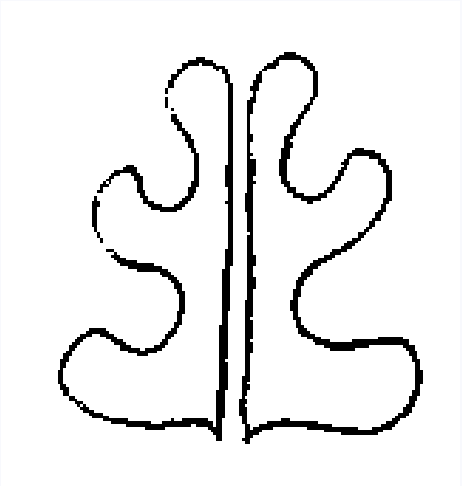
OTOLOGIC EXAM

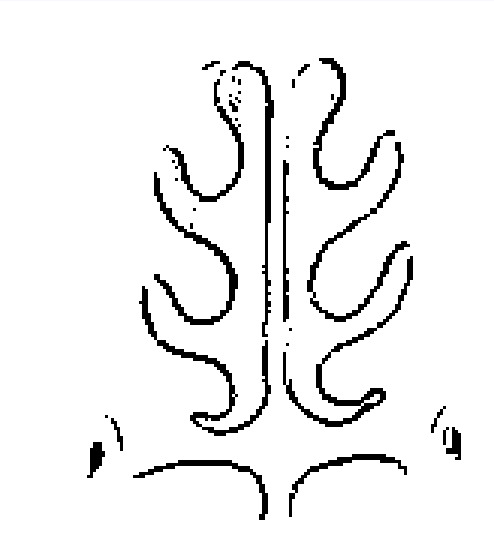
External Ear: (-) Gross deformities, (-) preauricular sinus, (-) erythema, (-) tenderness over pinna/tragus, patent external auditory canal

AD: Intact TM
Cone of light visualized
Mobile on pneumatoscopy

AS: Intact TM
Cone of light visualized
Mobile on pneumatoscopy

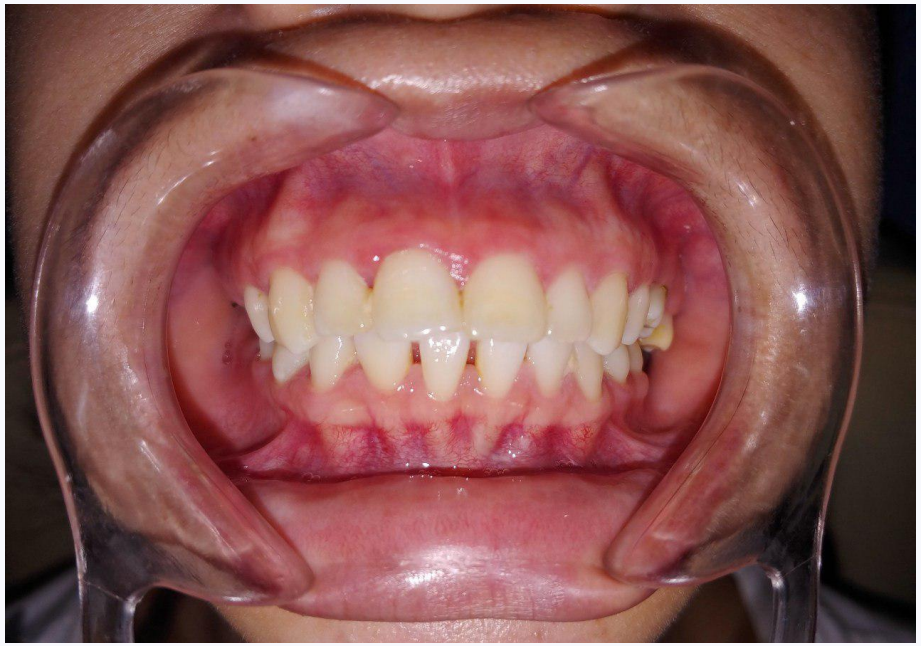
RHINOSCOPIC EXAM

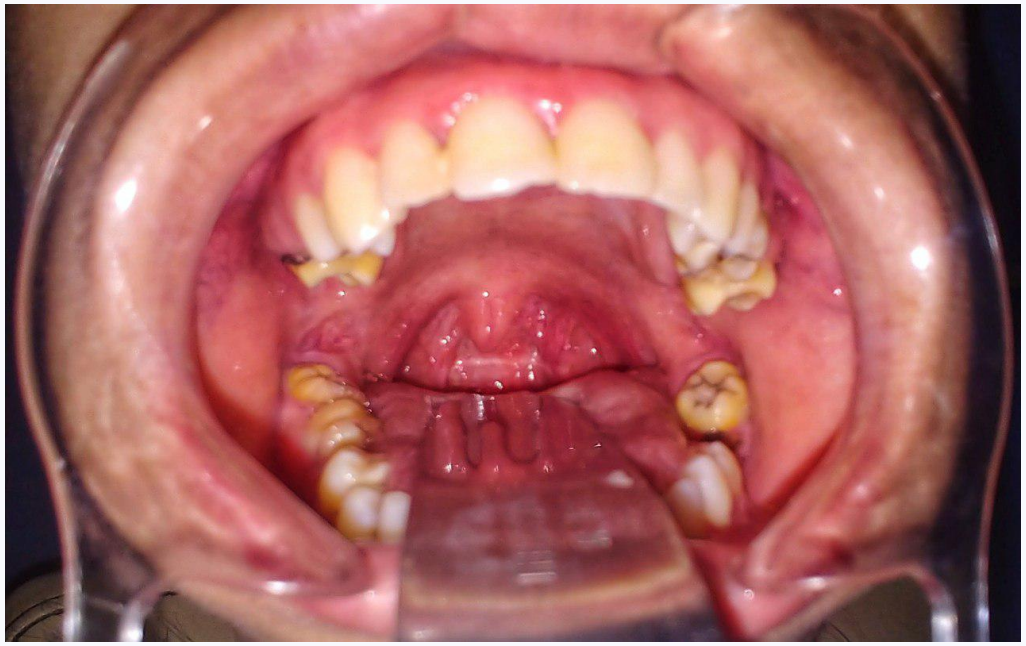




Pinkish mucosa, septum at midline
(-) masses, discharge

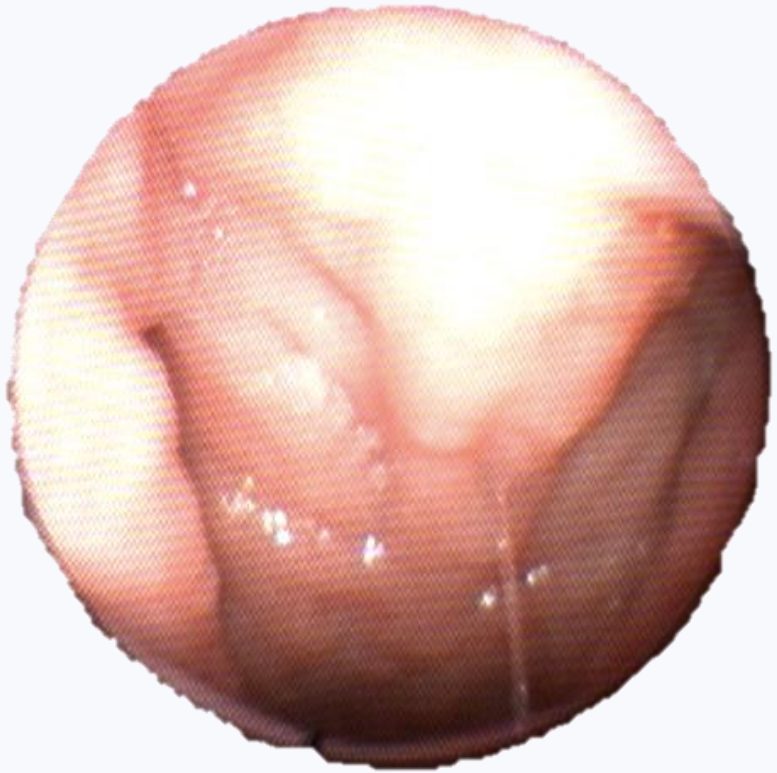
ORAL CAVITY EXAM



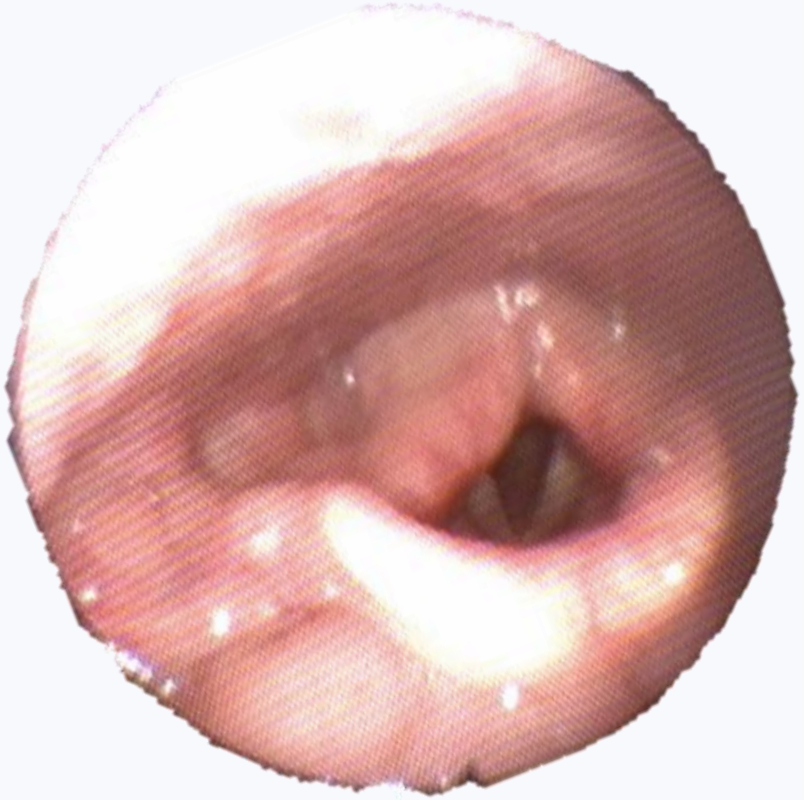


Uvula midline
Tongue midline, fully mobile
(-) parapharyngeal bulge
(-) masses, (-) dental caries

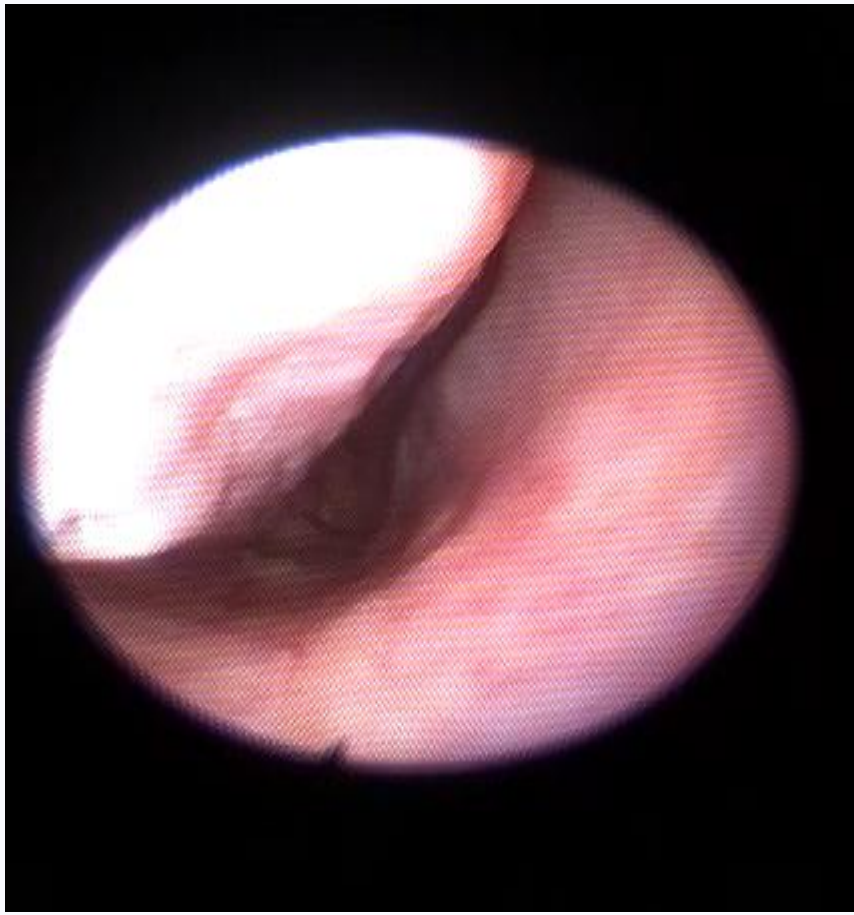
LARYNGOSCOPY



Smooth mucosa
(-) masses



Fully mobile vocal cords
GC 8-9



Diagnostic Workup

- FNAB (11/2017): Hemorrhagic smears
- Incision biopsy (12/2017): Schwannoma
- Chest Xray (9/24/18): Unremarkable
- Neck CT (March 2018)

DISCUSSION

Differential Diagnosis

	Central Neck	Lateral Neck
Benign	Thyroglossal duct cyst Thymic cyst Thyroid cyst Follicular adenoma Dermoid cyst Lipoma Thyroid goiter	Lymphadenitis Branchial cleft cyst Sialadenitis Lipoma Vascular tumors Peripheral nerve tumors
Malignant	Thyroid carcinoma Lymphoma Thyroglossal duct carcinoma Metastatic carcinoma Chondrosarcoma	Metastatic carcinoma Salivary gland carcinoma Lymphoma Sarcoma

Cummings, C. and Flint, P. (2010). Cummings otolaryngology head & neck surgery. Philadelphia: Mosby Elsevier.

Differential Diagnosis

Benign lateral neck mass	Lymphadenitis	Inflammation of one or more lymph nodes caused by a primary focus of infection elsewhere in the body
	Branchial cleft cyst	Epithelial remnant of the branchial cleft
	Sialadenitis	Infection of the salivary glands
	Lipoma	Encapsulated tumor made of fat tissue

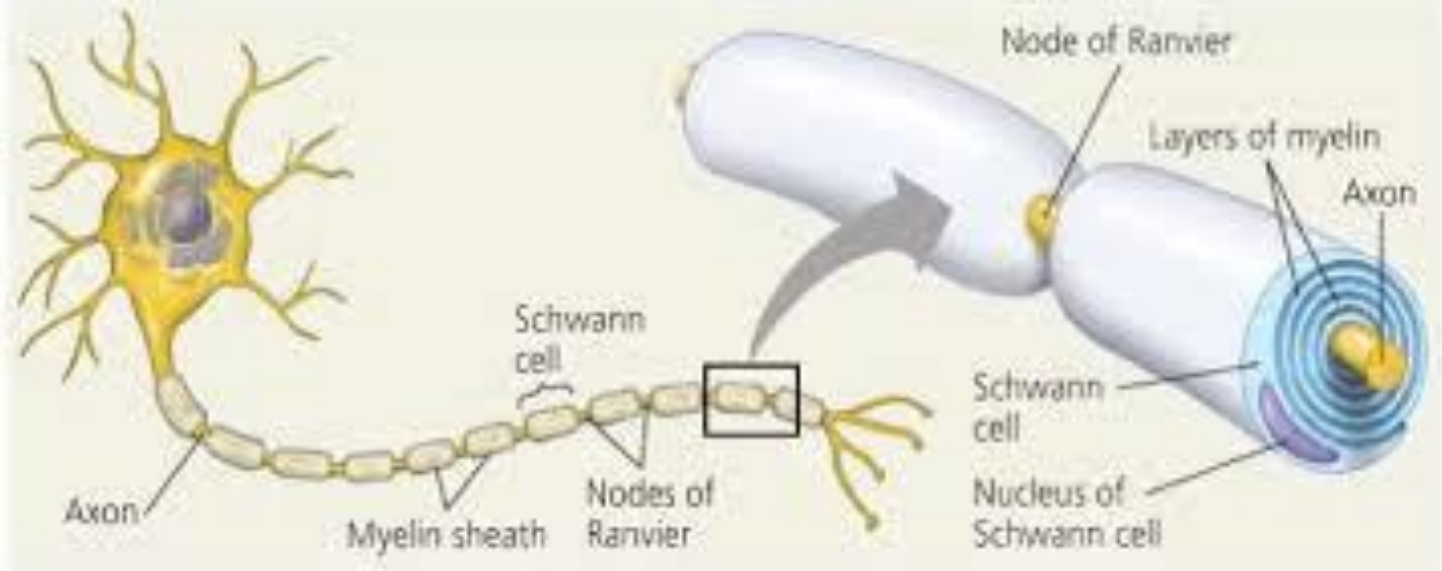
Differential Diagnosis

Benign lateral neck mass	Vascular tumors- Paraganglioma	Extraadrenal paraganglionic cells derived from the neural crest 1. Carotid body (+) Fontaine sign 2. (+) ipsilateral hoarseness of Horner's syndrome
	Peripheral nerve neoplasms- Schwannoma	Well encapsulated, slow growing tumors that arise from Schwann cells of peripheral nerves
	Peripheral nerve neoplasms- Neurofibroma	Benign nerve sheath tumor, unencapsulated

Differential Diagnosis

Malignant lateral neck mass	Metastatic carcinoma	Usually a squamous cell carcinoma in an unknown primary
	Salivary gland carcinoma	Most common is a mucoepidermoid carcinoma of the parotid
	Lymphoma	Non-hodgkin's lymphoma is the most frequent type in the head and neck
	Sarcoma	Most common primary carcinoma in the head and neck Malignant fibrous histiocytoma- most common soft tissue sarcoma in the head and neck

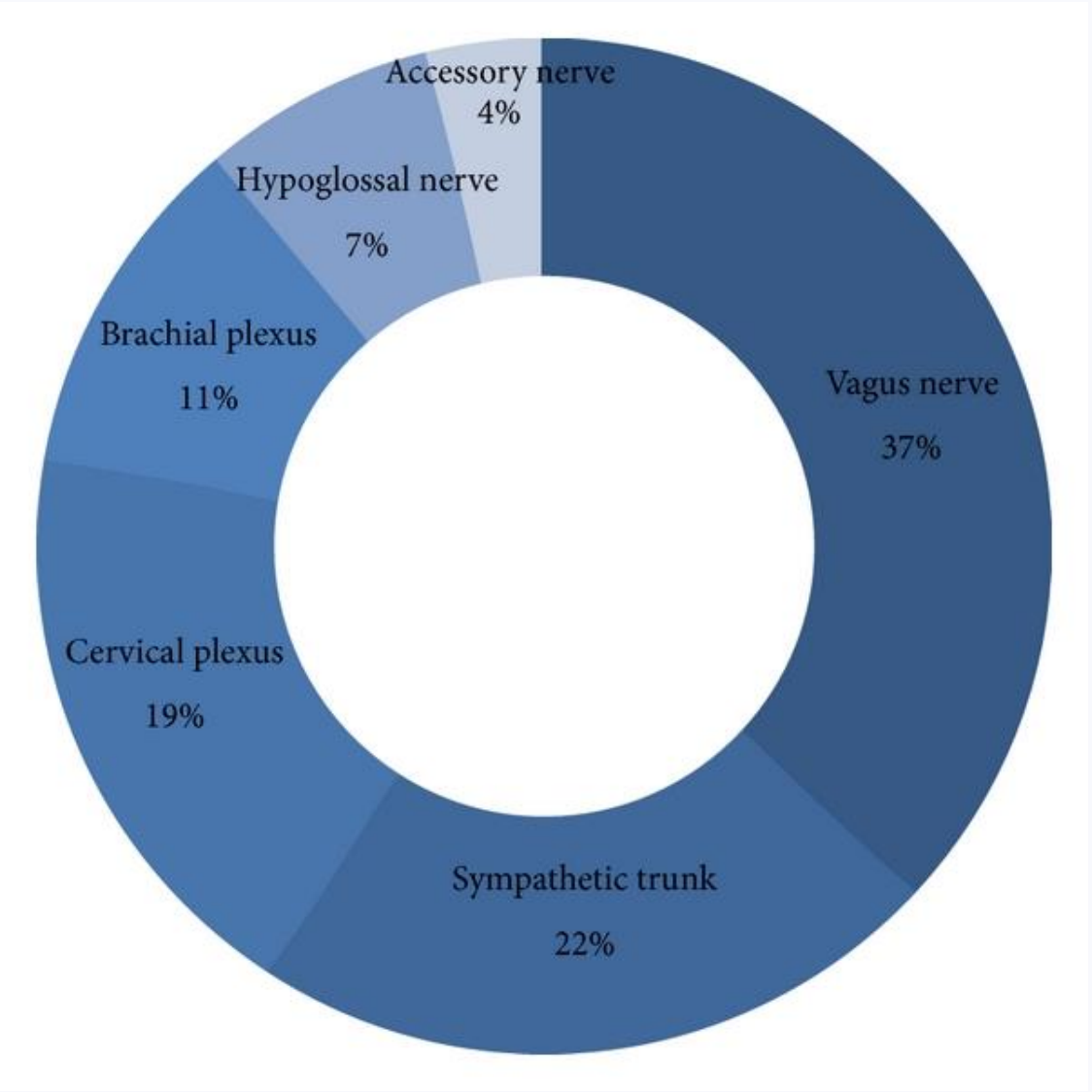
Schwannoma



- Comprised of Schwann cells
- Benign neural sheath tumor
- 25-45% lie in the head and neck
- Most common location is at the parapharyngeal space
- 1/3 of these lie in the lateral part of the neck
- May arise from cranial nerves VIII, X, sympathetic chain, cervical nerve roots, brachial plexus

Yasumatsu, R., Nakashima, T., Miyazaki, R., Segawa, Y. and Komune, S. (2018). Diagnosis and Management of Extracranial Head and Neck Schwannomas: A Review of 27 Cases.

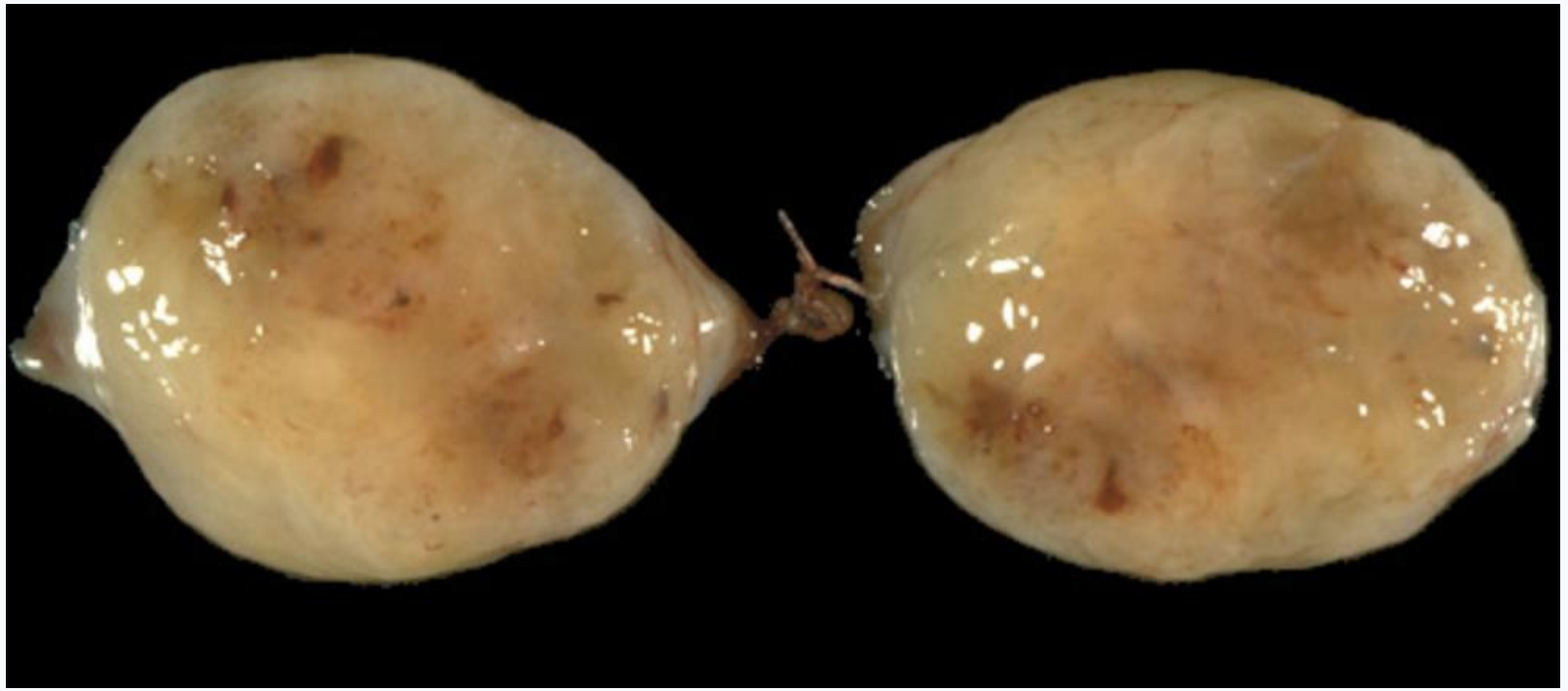
Nerve of Origin



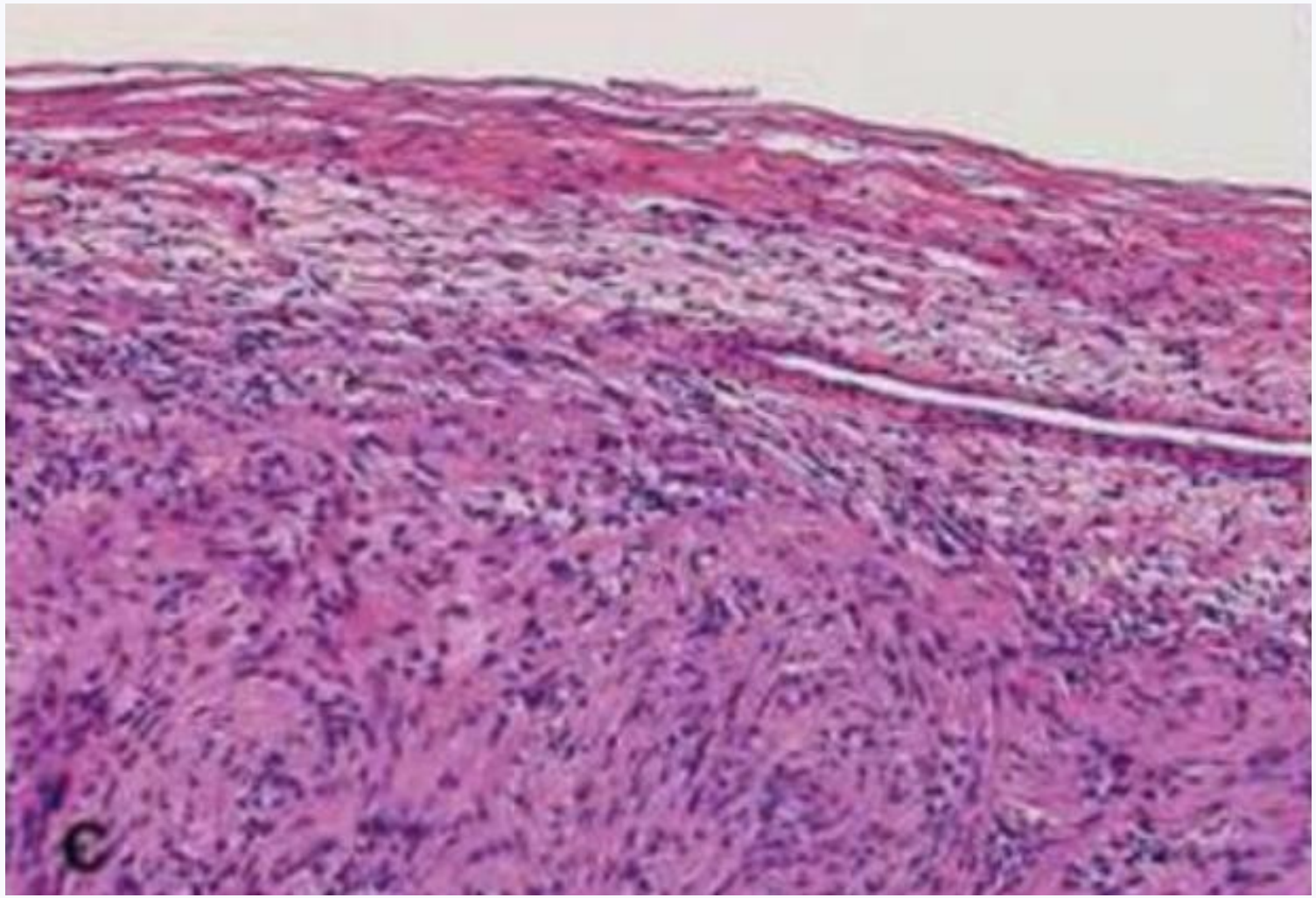
Yasumatsu, R., Nakashima, T., Miyazaki, R., Segawa, Y. and Komune, S. (2018). Diagnosis and Management of Extracranial Head and Neck Schwannomas: A Review of 27 Cases.

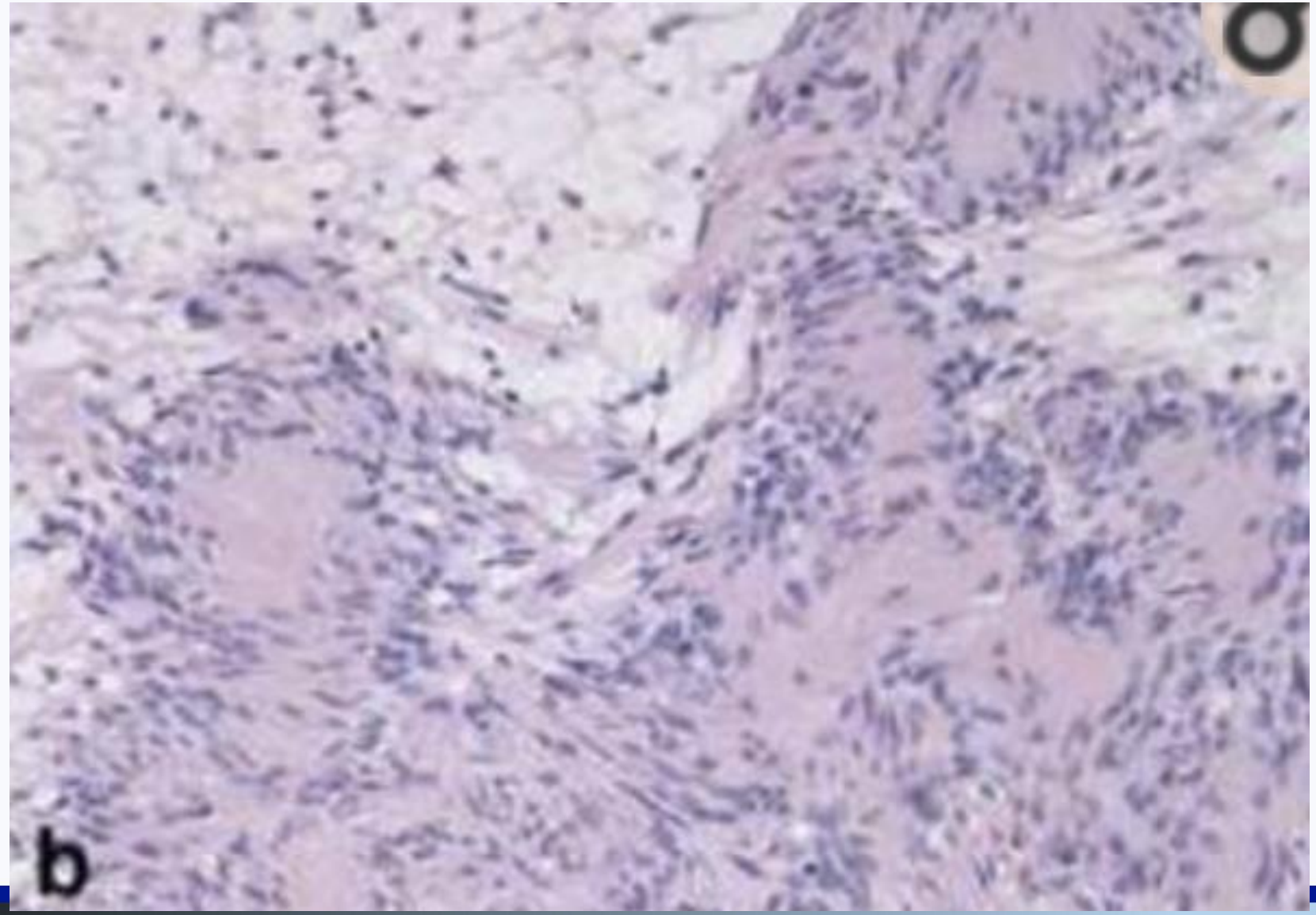
Gross description

- Well circumscribed and large tumors may be cystic
- Cut section is light tan and glistening and may show yellow patches
- Areas of hemorrhage may be seen



Microscopic pathologic features

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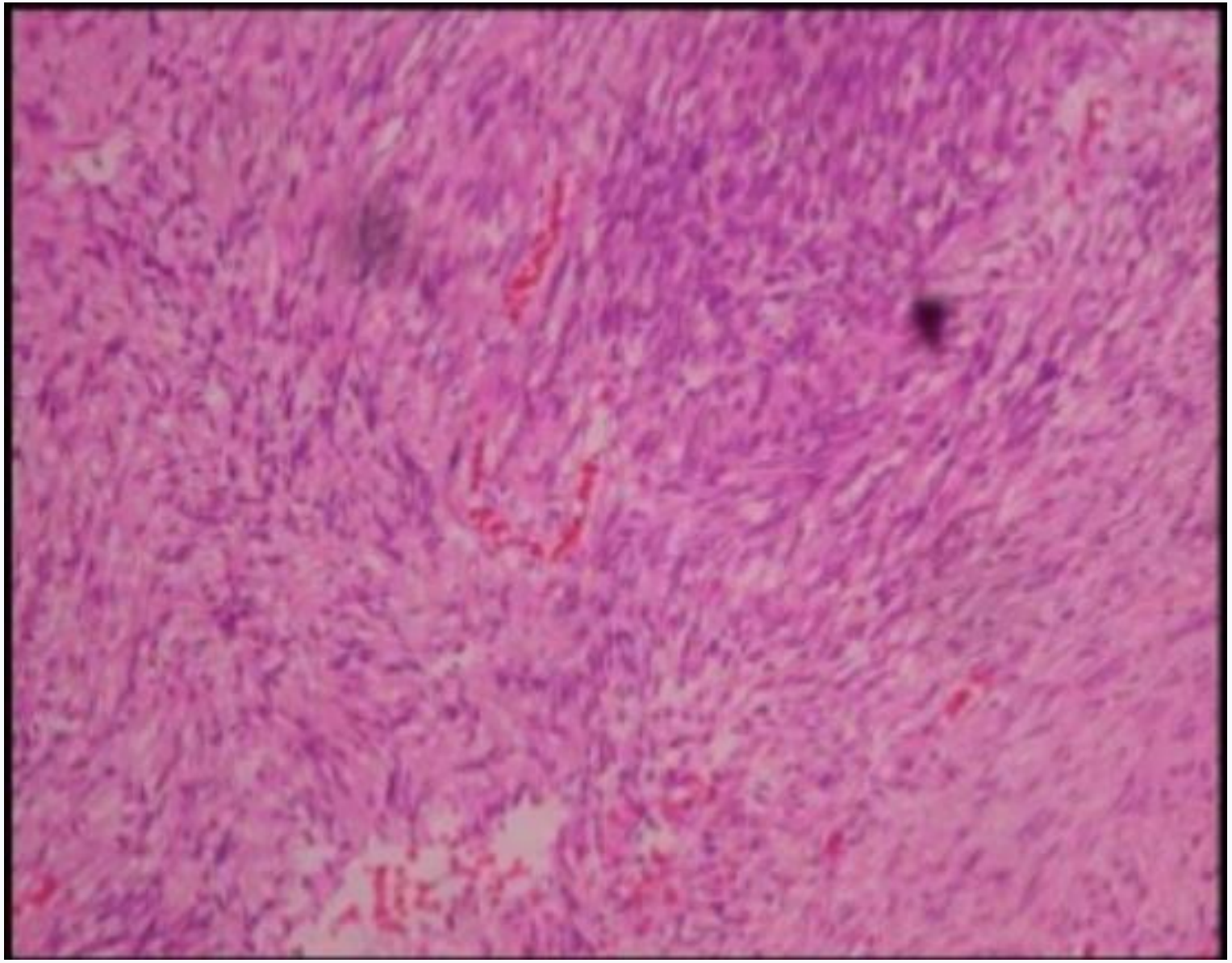

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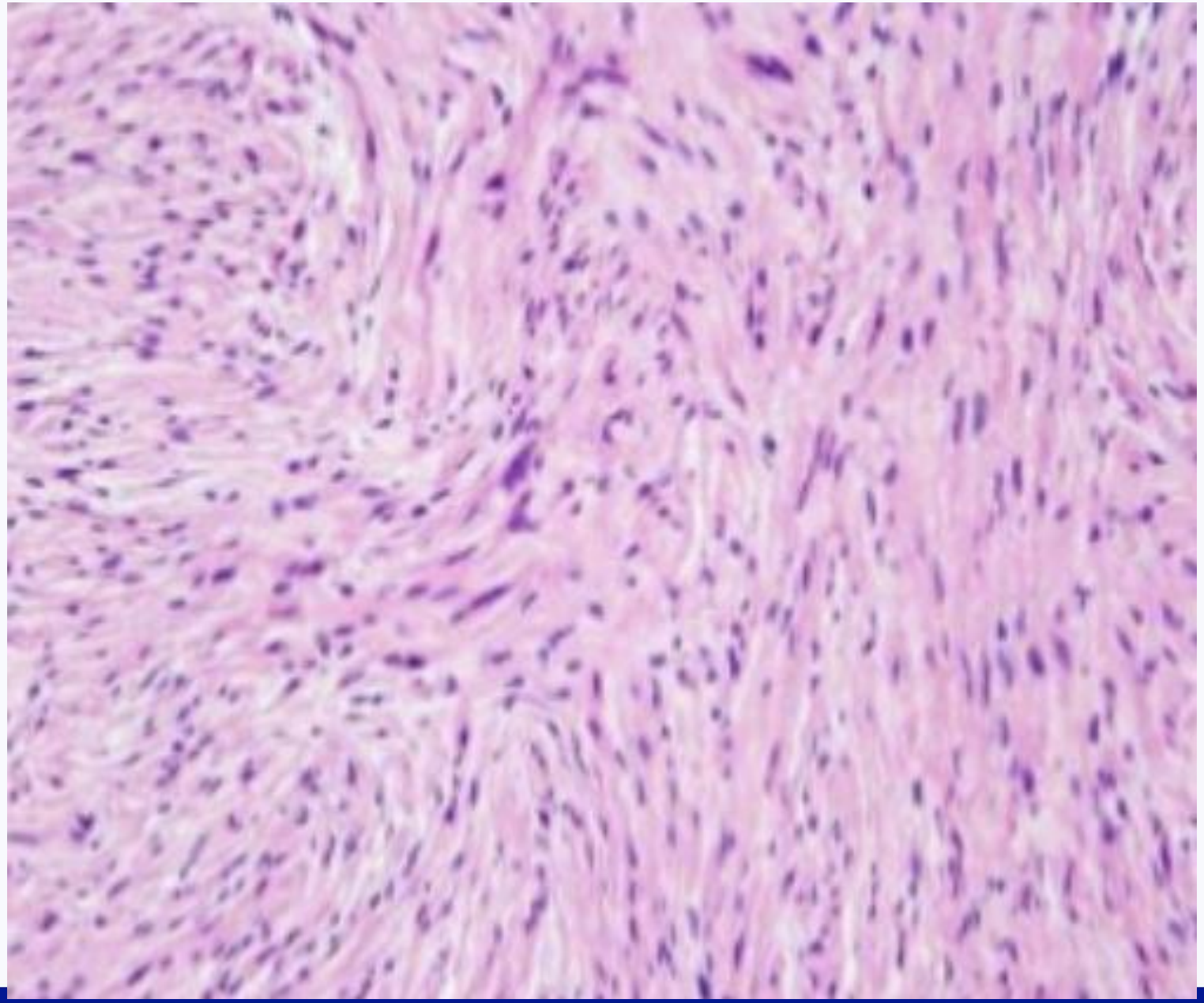

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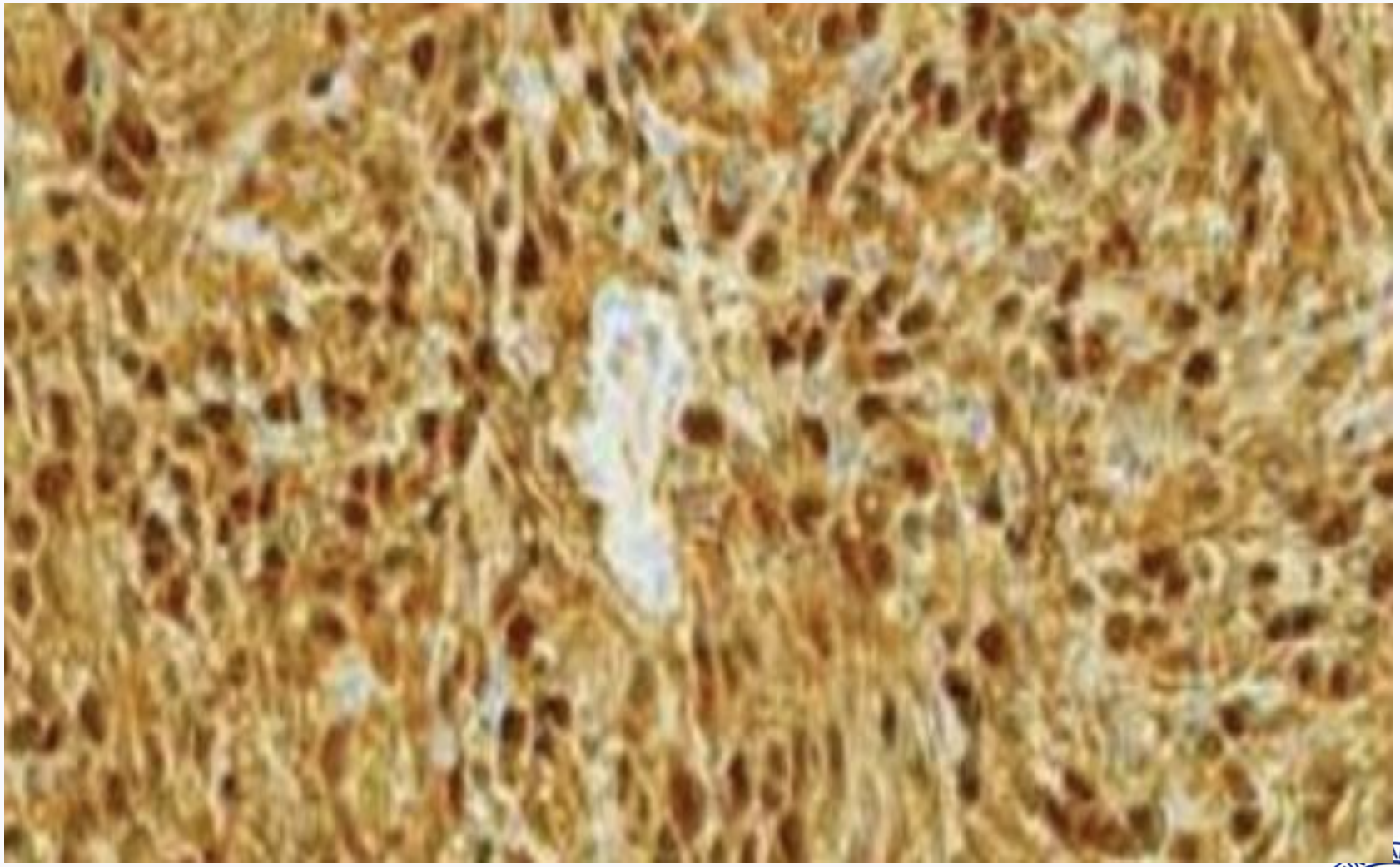
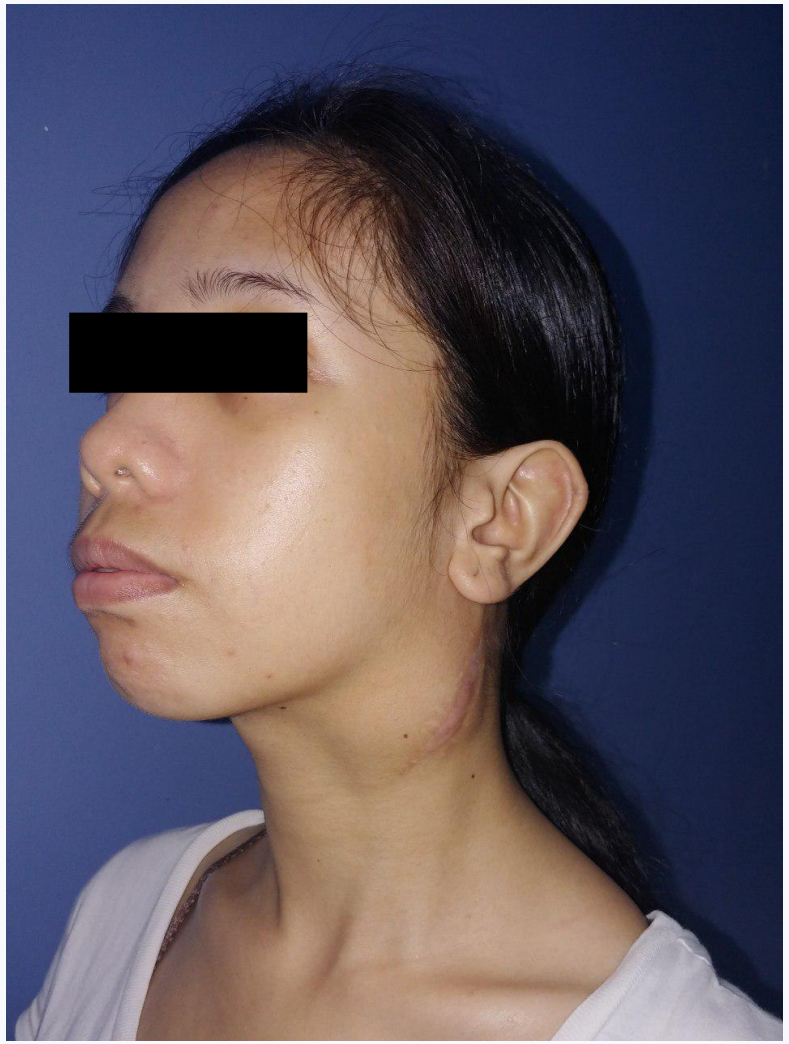


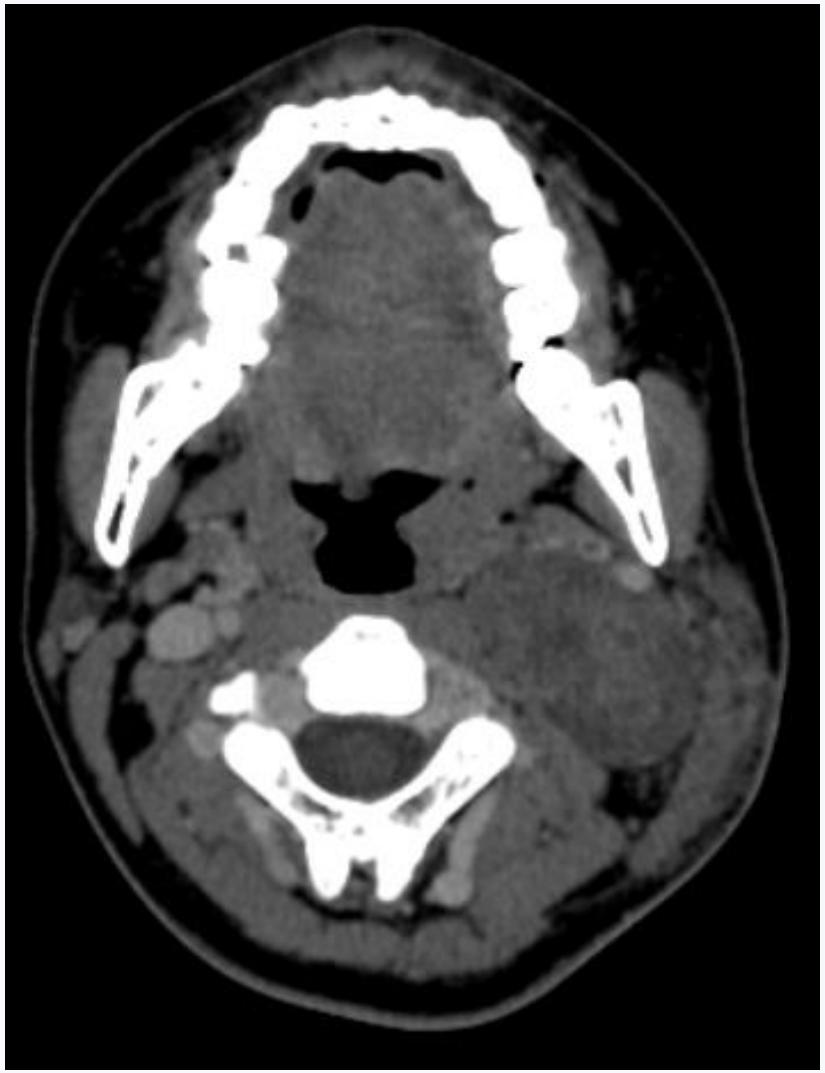
PLAN

OTORHINOLARYNGOLOGY
1961
UPCM - PGH

Salient Points
24/F

HISTORY	2 year history of a gradually enlarging left lateral neck mass, non tender, non pulsatile, movable. Incision biopsy done revealed Schwannoma
PE	6 x 5 x 2.5 cm firm, movable, non tender, non pulsatile mass at left lateral neck level II. No bruit. No paroxysmal cough on manipulation 5.5 cm hypertrophic scar overlying the mass No parapharyngeal bulge; Fully mobile vocal cord; No neurologic deficits noted
IMAGING	5.6 x 4.4 x 2.6 cm heterogeneously enhancing mass at the left carotid space displacing the left carotid and jugular vessels laterally
HISTOPATHOLOGY	Schwannoma



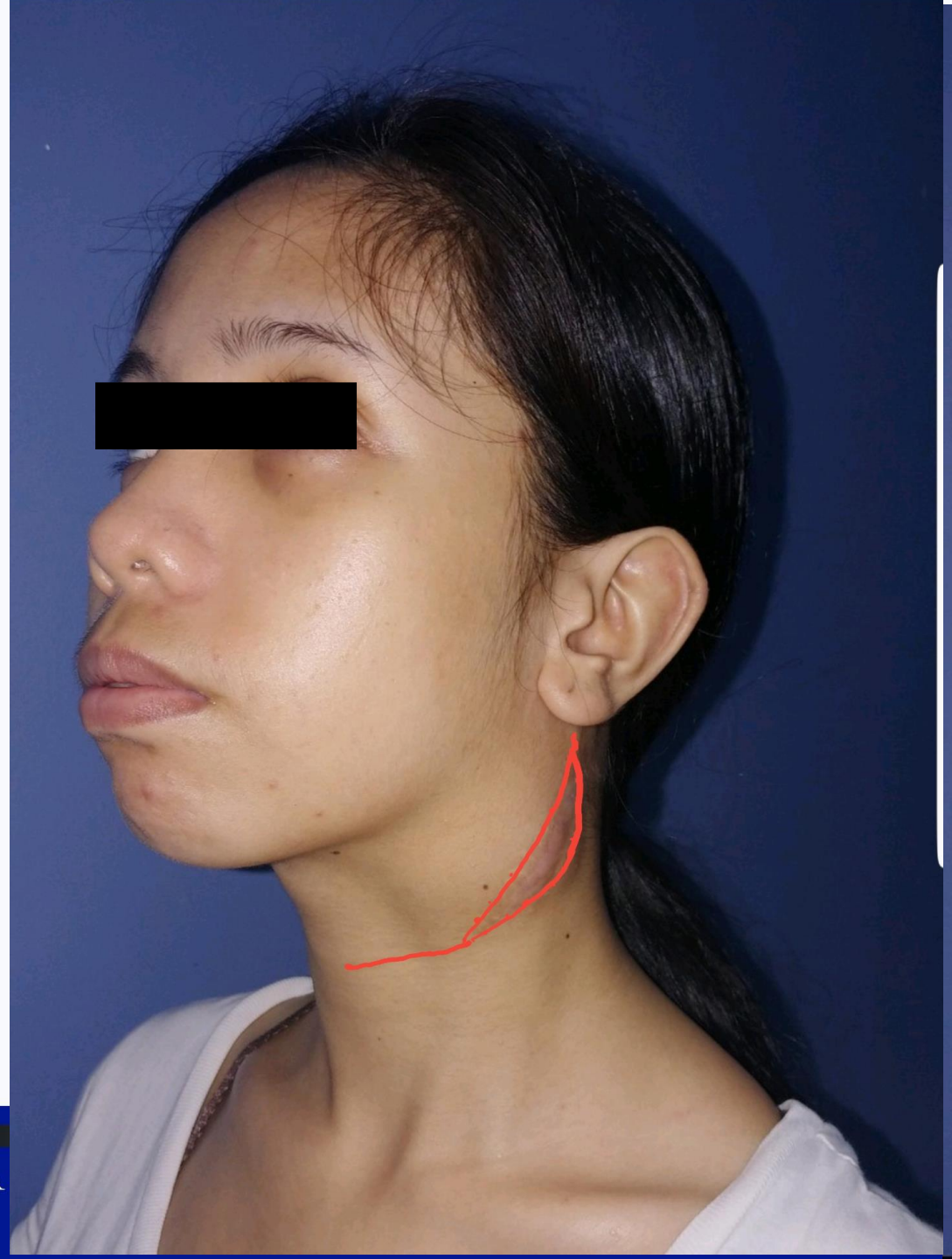


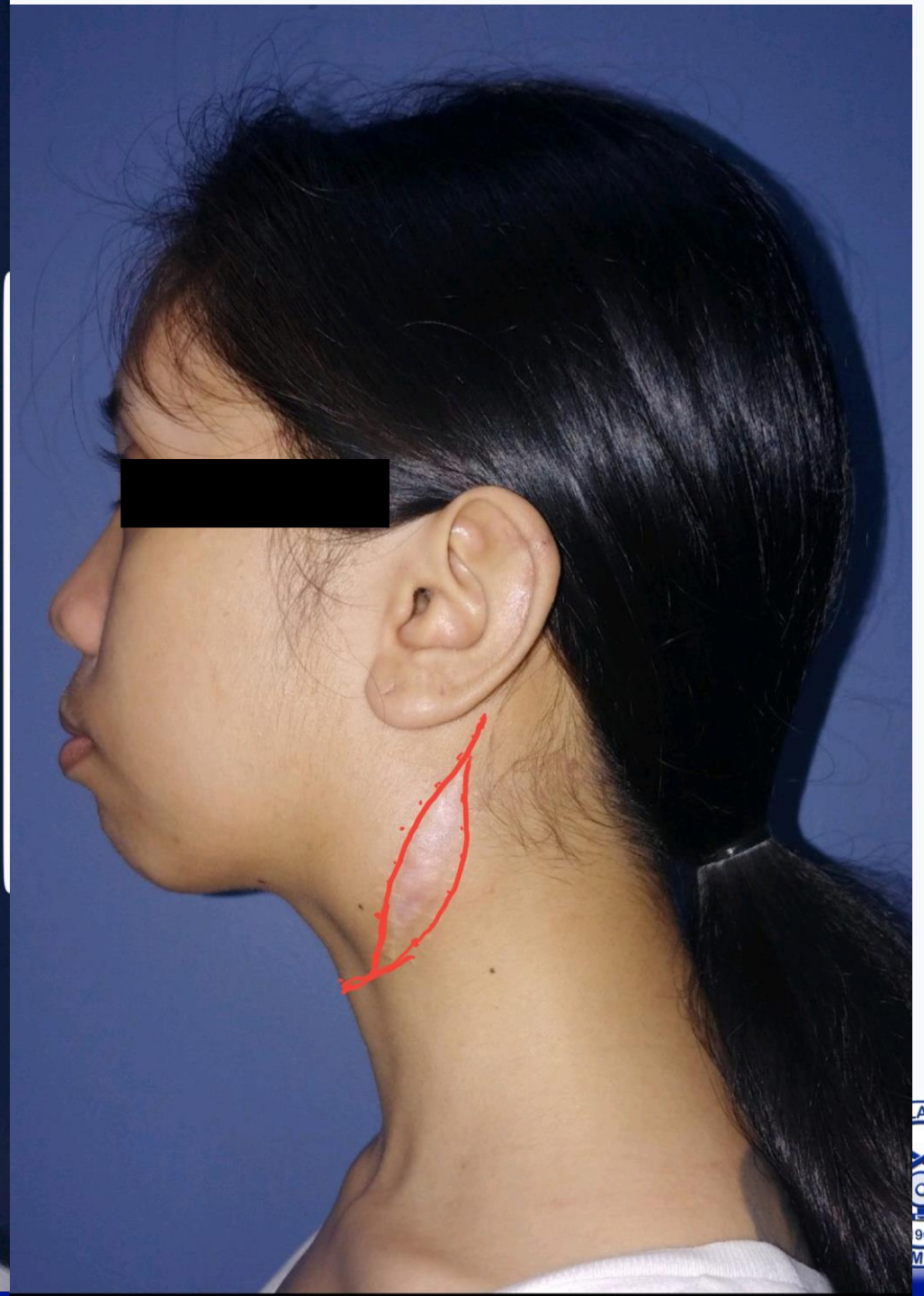
Preoperative Assessment

Schwannoma, Left Cervical Sympathetic Chain

Plan

- Excision of Schwannoma, Left, via intracapsular dissection





DEPA
PHI

PLAN

- In a case report by **Nacef *et al.* (2014)**, they presented a case of a 24 year old female with a 2 month history of a gradually enlarging mass at left upper lateral neck.
- Transcervical approach was done and noted that the mass originate from the cervical sympathetic chain.
- Intracapsular dissection was done
- Post-operatively, left sided Horner's Syndrome was noted. Started on oral corticosteroid for one week and symptoms was well tolerated.
- Damage to cervical sympathetic chain is well tolerated; Nerve reconstruction is rarely done

Nacef, I *et al.* Cervical Sympathetic Chain Schwannoma: A Case Report. 2014. Egyptian Journal of Ear, Nose, Throat and Allied Sciences. 15 (2): 169 - 172

Complications

- Horner's Syndrome
  - Based on literature, ranges from 23% – 50%
  - Miosis, anhidrosis, ptosis, enopthalmos

Nacef, I *et al.* Cervical Sympathetic Chain Schwannoma: A Case Report. 2014. Egyptian Journal of Ear, Nose, Throat and Allied Sciences. 15 (2): 169 - 172

Complications

- First Bite Syndrome
  - Described first by Haubrich in 1986
  - Rare complication after surgery of the upper cervical region
  - Presents as excruciating pain triggered at the beginning of meal by chewing, swallowing or simple contact with acidic food which wanes on subsequent bites and recurs on next meal
  - Pathogenesis remains uncertain
    - Sympathetic denervation would induce an autonomic imbalance with increased parasympathetic secretory activity of myoepithelial cells
  - Treatment:
    - NSAIDS + anticonvulsants/calcium channel blockers/tricyclic antidepressants
    - Intraparotid injections of botulinum toxin type A
    - Observation

Abdeldaoui A *et al*. First Bite Syndrome: A little known complication of upper cervical surgery. 2013. European Annals of Otorhinolaryngology, Head and Neck Diseases.