



Head and Neck Mass (Non-thyroid)

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General Data

Y.B.

4-year-old

Female

Sta. Mesa



Chief Complaint

“Neck Mass”



History of Present Illness

7 months PTC → patient's mother noted a
2cm x 2cm mass at the
lateral aspect of the
neck, left.

with no other associated
signs and symptoms



Past Medical History

- Born to a 23-year-old G3P2 via NSD at Health Center with no fetomaternal complications.



Past Medical History

- Immunization: (+) BCG, DPT x 3, OPV x 3, MMR, Hepa B x 3
- no previous surgeries, no known allergies, no bronchial asthma
- March 2005: Primary Koch's infection; completed 5 months anti Koch's therapy



Family History

- (+) Hypertension – Grandmother
- (+) DM – Grandmother



Review of System

- Unremarkable



Physical Examination

General Survey: conscious, coherent, not in distress

Vital Signs:

CR: 110 bpm

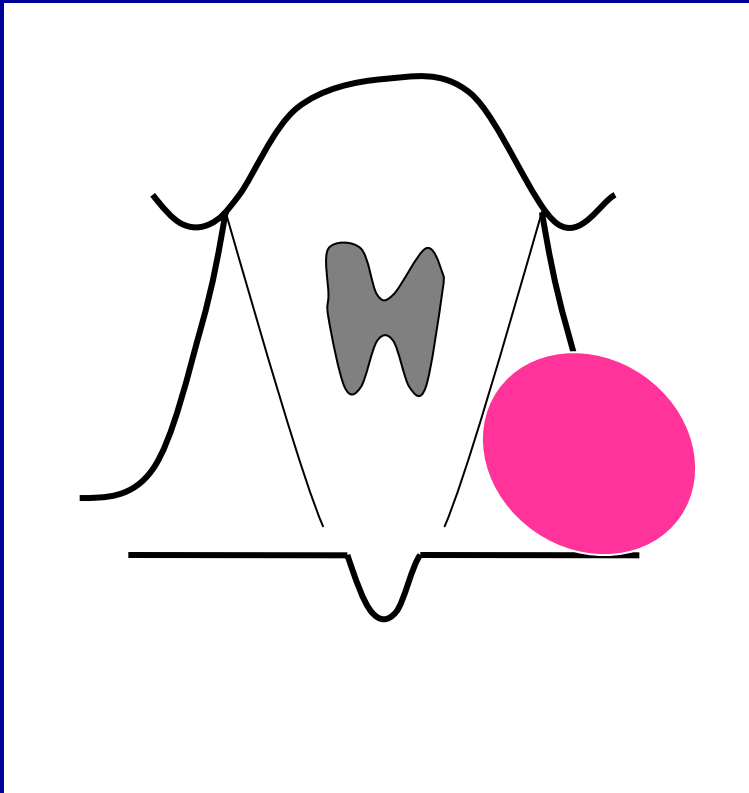
RR: 22 cpm

T: 37.4°C



Physical Examination

HEENT:



- Supple neck
- no tonsillopharyngeal congestion
- no oral mass/lesion noted
- no cervicolymphadenopathies
- 6 x 8 cm mass noted at the supraclavicular area, posterior to the sternocleidomastoid, non hard, movable, bluish discoloration



Physical Examination

Chest and Lungs: symmetrical chest expansion, no retractions, no lagging, clear and equal breath sounds

Cardiac: normal rate, regular rhythm, no murmur



Physical Examination

Extremities: Grossly normal, full and equal pulses

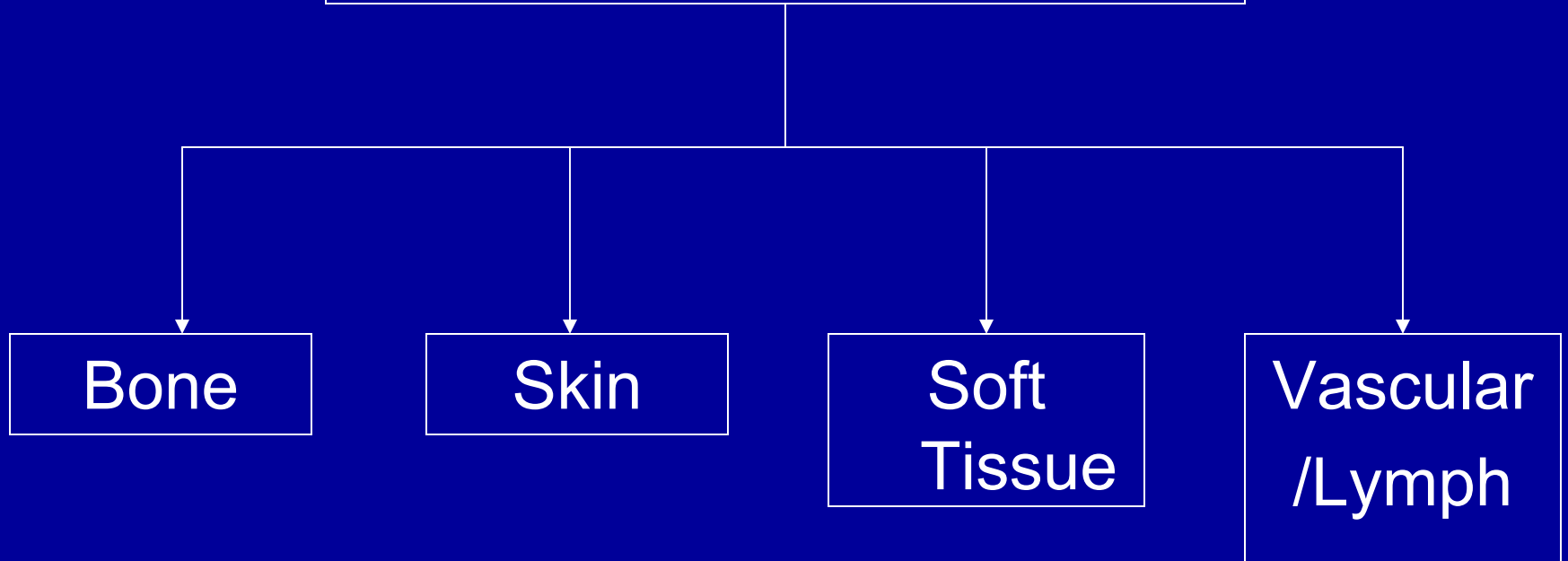


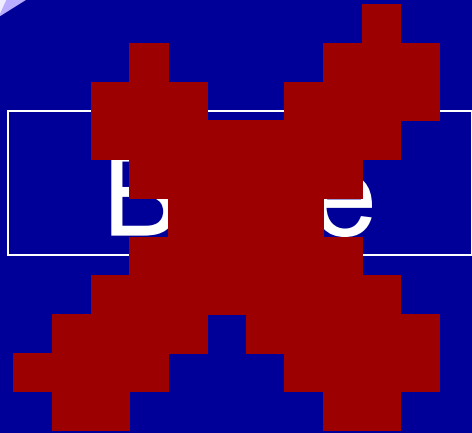
Salient Features

- 4-year-old
- Female
- Neck mass
 - Lateral
 - Non-hard
 - Movable
 - Bluish discoloration

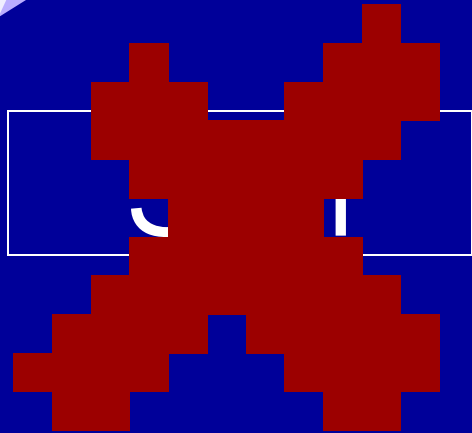


LATERAL NECK MASS

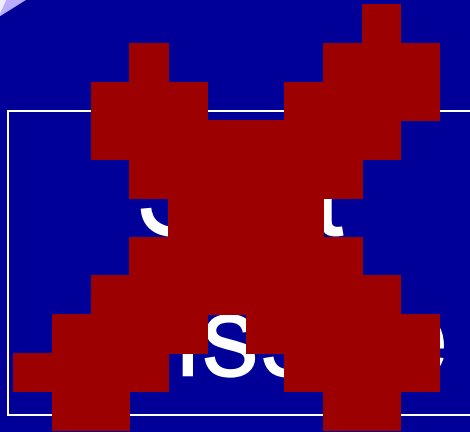




Mass is non hard
and movable



Not fixed to
overlying skin



Bluish discoloration



Vascular



- Non hard
- Bluish discoloration



Lymph



- Non hard
- Bluish discoloration



Vascular/Lymph

Inflammatory

Absence of s/sx of inflammation

Vascular/Lymph

- Non hard
- Bluish discoloration

- Vascular and lymph malformation



Clinical Diagnosis

	<i>Diagnosis</i>	<i>Degree of Certainty</i>	<i>Treatment</i>
<i>Primary</i>	Lymphangioma	60	Medical Surgical
<i>Secondary</i>	Hemangioma	40	Observation



Paraclinical Diagnostic Procedure

- Do I need to perform a paraclinical diagnostic procedure?

“YES”

- Goals:
 - To increase the certainty of primary clinical diagnosis.
 - To aid in treatment plan



Paraclinical Diagnostic Procedure

	Benefit	Risk	Cost	Availability
Ultrasound	Cystic vs solid	minimal	Php 400	available
CT scan	Sensitive enough to determine extent of disease	Radiation	Php 3,000	available
MRI	Highest degree of sensitivity	minimal	Php 10,000	Not available



Paraclinical Diagnostic Procedure

- CT Scan
 - cystic mass with multiple septations, lateral aspect neck, posterior to the sternocleidomastoid, with no intrathoracic extension



Pre-treatment Diagnosis

	<i>Diagnosis</i>	<i>Degree of Certainty</i>	<i>Treatment</i>
<i>Primary</i>	Lymphangioma	90%	Surgical Medical
<i>Secondary</i>	Hemangioma	10%	Observation



Goals of Treatment

- Resolution of the mass
- Prevent complication



Treatment Options

Medical	Benefit	Risk	Cost	Availability
Sclerotherapy	Low success rate	Injury to adjacent structures	(++)	Not Available
Radiotherapy	Low success rate	Lymph-angiosarcoma	(++)	Not available
Aspiration	High recurrence rate	Infection	(+)	Available



Treatment Options

Surgical	Benefit	Risk	Cost	Availability
Excision	MR: 3% RR: 6-35%	Anesthesia	(+)	available



Treatment Plan

Surgical:
Excision



Pre Operative Management

- Secure consent
- Psychosocial support
- Optimize patient
- Prepare materials



Operative Technique

- Patient supine under GA
- Asepsis and antisepsis
- Sterile drapes placed
- Oblique incision placed over the mass
- Superior and inferior skin flaps created
- Platysma cut and opened



Operative Technique

- Incision done along the anterior border of the sternocleidomastoid muscle.
- Excision of the mass done using sharp and blunt dissection
- Intraoperative findings noted



Operative Technique

- Intraoperative findings:
 - well defined capsule containing clear serous fluid. No extension nor invasion to other structures noted grossly.



Operative Technique

- Correct sponge, needle and instrument count done
- Hemostasis
- Layer by layer closure
- DSD



Final Diagnosis

Cystic Hygroma, lateral aspect, neck, left



Post-operative Management

First POD



DAT

shifted to oral medications:

Paracetamol 250mg/5ml 5ml q4 for pain

Third POD



patient discharged



After Managing the Patient

- I HAVE DISCHARGED MY PATIENT :
 - IMPROVED
 - FREE OF COMPLICATIONS



Discharge Advise

- Daily wound care
- Ff up at Surgery OPD after 1 week
- Possibility of recurrence



Sharing of Information



Sharing of Information

Cystic Hygromas

- multiloculated cystic structures
- Benign
- result of budding lymphatics

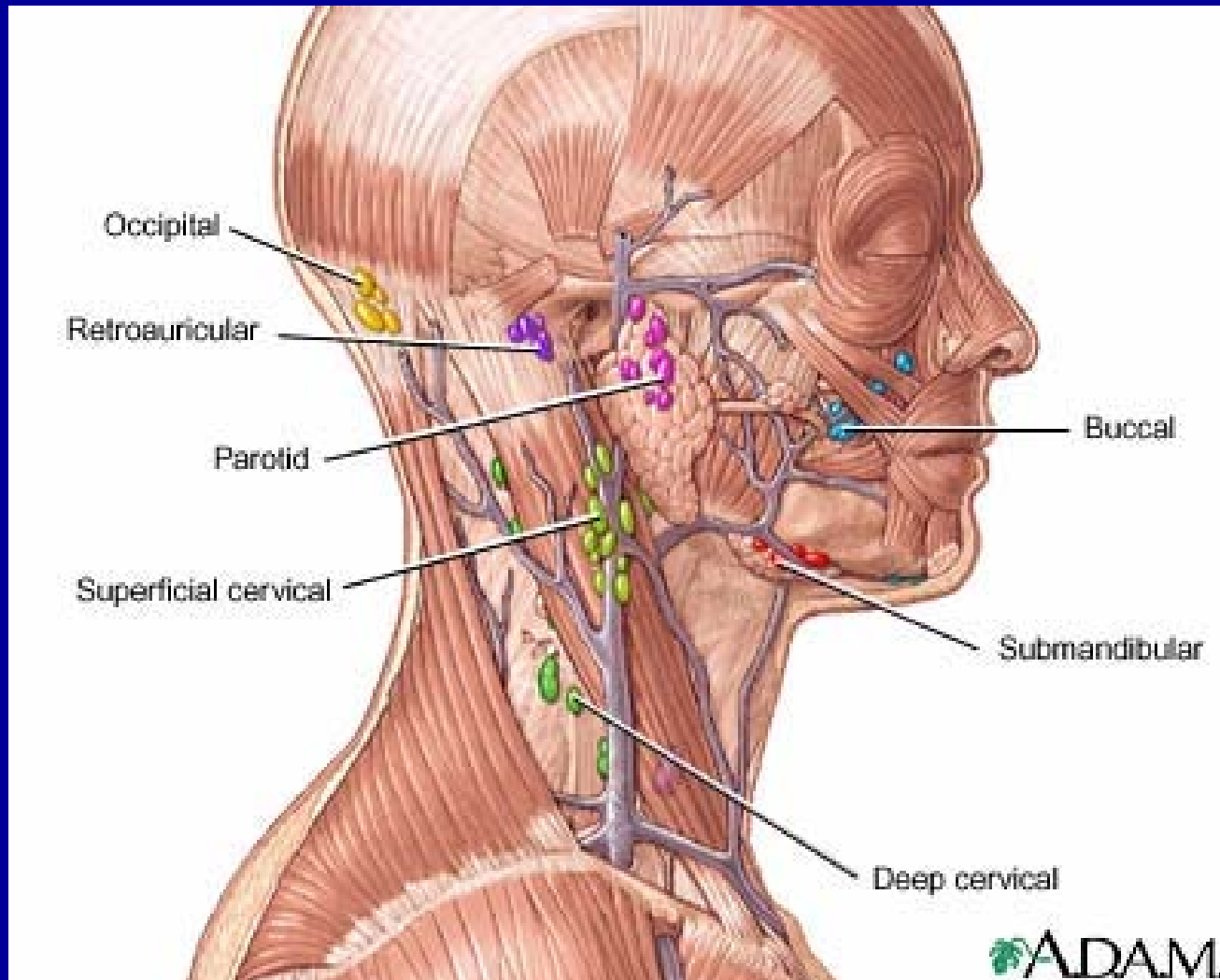


Sharing of Information

- may occur anywhere in the body
 - neck (75%)
 - axilla (20%)
- frequently abut and/or encompass neurovascular structures



Sharing of Information





Sharing of Information

- Surgical excision remains the therapy of choice
- usually is performed shortly after diagnosis



Sharing of Information

The different types

1. Lymphangioma circumscriptum

- simplex superficial red macular or vesicular lesion of mucous membranes or skin.

2. Lymphangioma capillary

- simplex lesion of dilated capillarylike channels



Sharing of Information

3. Lymphangioma cavernosa

- simplex lesion of dilated lymphatic channels with deep extension and without cyst formation

4. Lymphangioma cystica (ie, cystic hygroma)

- composed of large lymphatic cysts that expand into adjacent soft tissue planes and are well defined, circumscribed, or lobulated.



Sharing of Information

5. Lymphangioma complex

- composed of multiloculated poorly defined cysts extending to more than one anatomic area, tissue plane, or organ system.



Sharing of Information

Medical complications

- Airway obstruction
- Hemorrhage
- Infection
- Deformation of surrounding bony structures or teeth if left untreated



Sharing of Information

Complications of surgical excision:

- Damage to a neurovascular structure
- Chylous fistula
- Chylothorax
- Hemorrhage



Sharing of Information

Medical therapy:

- *Alternate therapy*
 - proposed as the primary treatment for lymphangiomas, particularly for sensitive areas (eg, the orbit) and, more commonly, for recurrent disease after surgical therapy.
- *Radiation therapy*
 - effective but abandoned because of later malignant transformation or retardation of growth sites
- *Carbon dioxide laser therapy*
 - has been effective in managing upper airway lesions.



Sharing of Information

- Intralesional sclerotherapy
 - group A *Streptococcus pyogenes* of human origin (OK-432)
 - triamcinolone, cyclophosphamide, bleomycin, fibrin glue, and alcohol for hygroma reduction;



Sharing of Information

Associated with the following congenital disorders:

- Turner syndrome
- Chromosomal aneuploidy
- Hydrops fetalis
- Down syndrome and other trisomy disorders
- Fetal alcohol syndrome
- Noonan syndrome
- Several other congenital syndromes



References

1. Ozen IO, et al., Surgical treatment of cervicofacial cystic hygromas in children. ORL J Otorhinolaryngol Relat Spec. 2005;67(6):331-4. Epub 2005.
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3. Neville H., Poole, M., Cystic Hygroma, eMedicine, 2006
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5. Lin, R., Schwartz, R., Arterial Vascular Malformations Including Hemangiomas and Lymphangiomas, eMedicine, 2006.
6. Fabian, R., Cervicofacial Lymphangiomas, eMedicine, 2006.



MCQ #1

1. This type of lymphangioma is composed of a simplex lesion of dilated lymphatic channels with deep extension and without cyst formation.
 - A. Lymphangioma circumscriptum
 - B. Lymphangioma capillary
 - C. Lymphangioma cavernosa
 - D. Lymphangioma cystica



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MCQ #2

2. The following agent is not for sclerotherapy as treatment for cystic hygroma.
- A. Alcohol
 - B. Cyclophosphamide
 - C. Bleomycin
 - D. β Hemolytic Streptococcus



MCQ #2

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- A. Alcohol
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MCR #1

3. Lymphangioma is associated with the following congenital disorder.

(a = 1,2,3; b = 1,3; c = 2,4; d = 4 only; e = all)

1. Turner syndrome
2. Chromosomal aneuploidy
3. Hydrops fetalis
4. Boonan syndrome



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MCR #2

4. This/these type(s) of lymphangioma(s) have cysts which are well defined, circumscribed, or lobulated.

(a = 1,2,3; b = 1,3; c = 2,4; d = 4 only; e = all)

1. Lymphangioma circumscriptum
2. Lymphangioma capillary
3. Lymphangioma cavernosa
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MCR #2

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1. Lymphangioma circumscriptum
2. Lymphangioma capillary
3. Lymphangioma cavernosa
4. Lymphangioma cystica



MCR #3

5. This/these type of treatment has been most effective in treating lymphangiomas in the upper airway

(a = 1,2,3; b = 1,3; c = 2,4; d = 4 only; e = all)

1. Sclerotherapy
2. Radiation therapy
3. Surgery
4. Carbon dioxide laser therapy



MCR #3

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2. Radiation therapy
3. Surgery
4. Carbon dioxide laser therapy