

SURGICAL ANATOMY

S-1

✓✓

BY FAHAD
RASOOL

- ① Boundries of Hasselbach Triangle.
- ① Lymphatic Drainage of Breast
- ✓ ① Calot's Triangle - Anatomy + Content
- ① Inguinal canal anatomy - Boundries, rings, content
- ✓ ① Anamolies of cystic artery
- ① Facial nerve anatomy + surgical importance.
- ① Lymphatics of Neck w^ot Neck.
- ✓ ① Biliary Tree anatomy + Draw and labell.

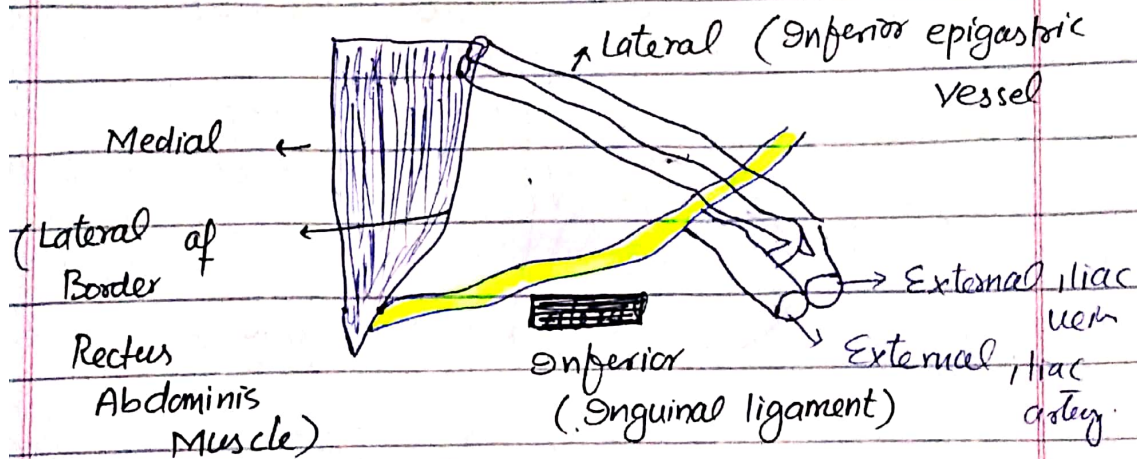
1) Boundries of Inguinal canal :->

2) Boundries of Hasselbach Triangle :

Medial - Lateral Border of rectus abdominis

Lateral - Inferior epigastric vessels

Inferior - Inguinal ligament



Lymph-nodes of Breast :-

Axillary nodes

Internal Mammary nodes

Rotter's nodes

Axillary nodes :

Main Lymphatic Drainage of Breast.

Divided into III-levels

with relation to P. minor muscle.

Level-I : Lateral to Pectoralis minor

Level-II : Beneath the Pec. minor

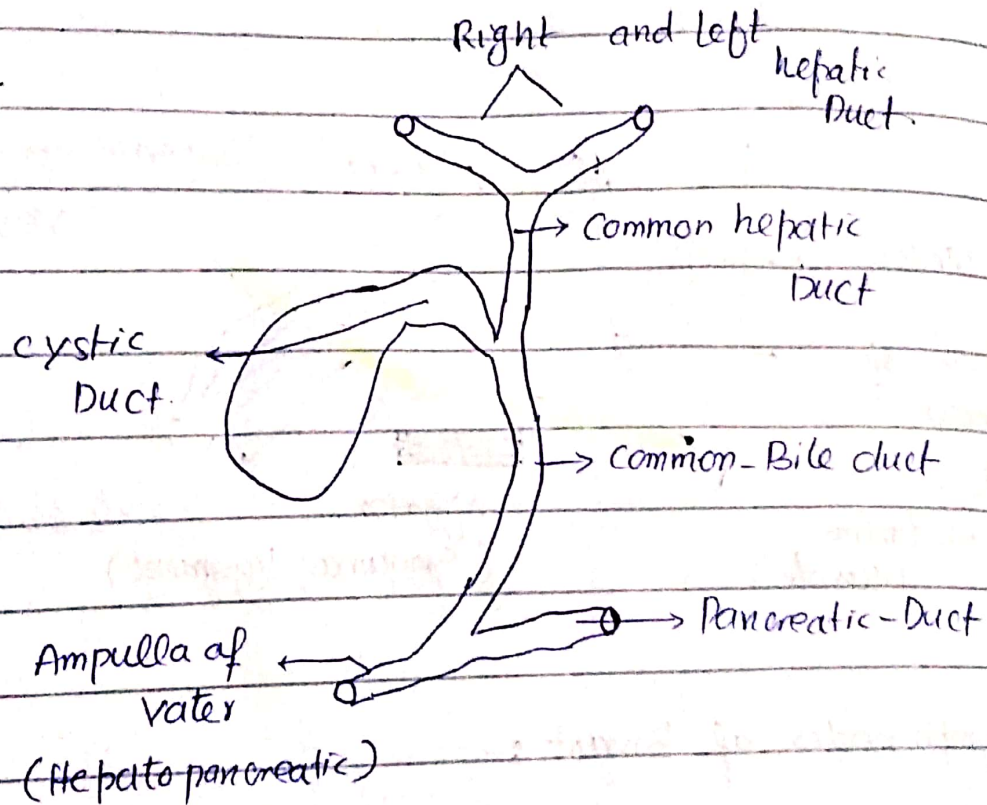
Level-III : Medial to Pec. minor.

Roller's nodes:

also called inter-pectoral nodes

Main-route of Drainage of cancer

Q.NO.05



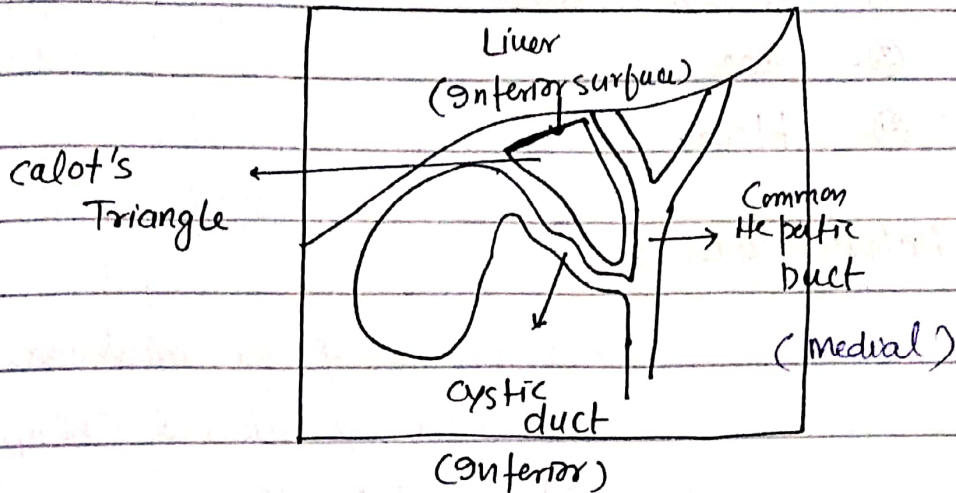
→ Draw and label extra-hepatic Biliary Tree.

Describe The Boundaries of Calot's Triangle

Medial - Common hepatic Duct

Inferior - cystic duct

Superior - Inferior surface of liver.



Content :-

Right hepatic artery

cystic artery

Lymph node of Lund

Lymphatics.

Q. Anatomy of Inguinal Canal:

* Boundaries :-

- ① - Anterior wall
- ② - Posterior wall
- ③ - Roof
- ④ - Floor

Anterior-wall :-

Aponeurosis of external-oblique reinforced by internal Oblique Muscle laterally.

Posterior-wall :-

Fascia Transversalis.

Roof :-

Transversalis fascia

Transversus Abdominis

Internal Oblique.

Floor :-

Inguinal Ligament.

* Rings:

Deep ring : Just above Mid point of inguinal Ligament

Superficial ring : Superior to Pubic, end of co Tubercle.

Content :

Spermatic cord

Round ligament (3/1st)

ilioinguinal nerve

Genital-branch of genitofemoral nerve

Hernias :

Direct inguinal hernia

Indirect inguinal hernia

Q Anomalies of cystic artery :-

Origin - R-hepatic artery

L-hepatic artery

Common hepatic artery

Right gastric artery

Number - single

Double

Location - inside / outside Calot's Triangle.

Anatomy of Biliary tree :-

Right and left hepatic

Ducts



Join to form



Common hepatic duct



Common hepatic duct +
cystic duct join



Common Bile duct



CBD - passes posterior to
the 1st portion of duodenum



Descends via Groove



Groove is present on the
head of pancreas



At the head CBD + P
Combines



Exit into 2nd part of
duodenum forming
ampulla of Vater

Q level System for describing the location of lymph nodes in neck.

I-A - Sub-mental Lymph nodes

I-B - Sub-Mandibular Lymph nodes

II-A - Jugulothyrogastric Lymph nodes

II-B - High internal Jugular Lymph nodes

III - Middle internal Jugular Lymph nodes

IV - Low internal Jugular Lymph nodes

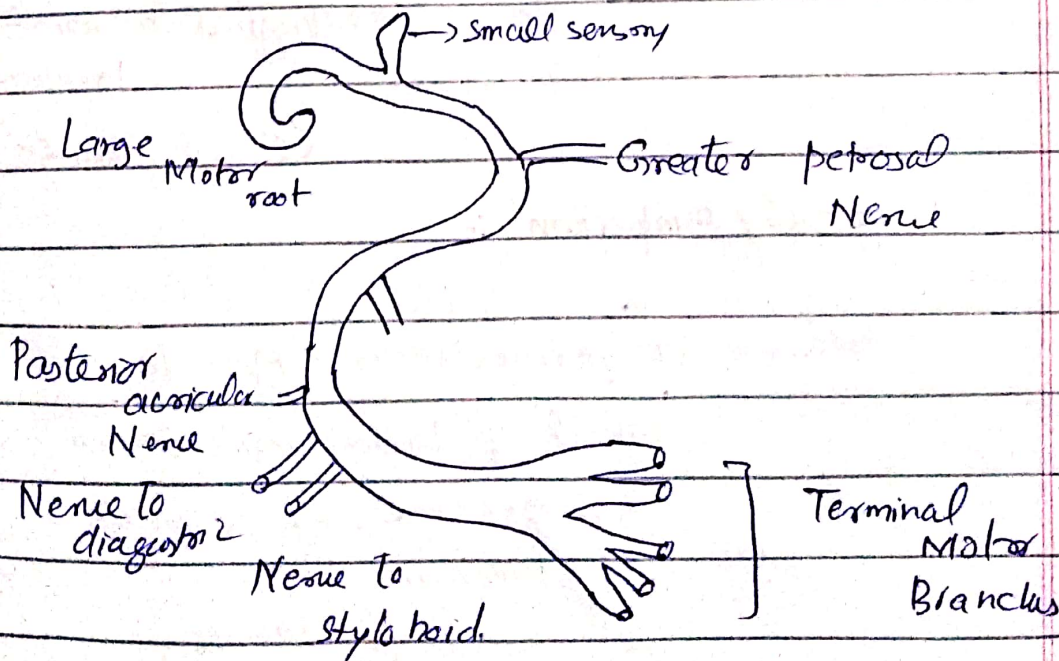
V-A - High Spinal accessory Lymph nodes

V-B - Low Spinal accessory Lymph nodes

VI - Visceral space nodes

VII - Superficial mediastinal Lymph nodes

Anatomy of Facial Nerve.



After exiting
The skull



Facial nerve

Turn
superiorly.



Runs anterior to
outer ear



Reaches the parotid
gland



divided into 5 branches



Temporal Branch

Zygomatic Branch

Buccal Branch

Marginal Mandibular
Branch.

Cervical Branch.

Surgically important :-

Because it provides Motor supply to

Muscle of Facial expression

Posterior belly of digastric

Stylohyoid

Stapedius Muscle.

Sensory supply to - concha of External ear

Special sensory supply - Anterior $\frac{2}{3}$ of Tongue

Parasympathetic

Supply to - Glands of head and neck.

↓

Sub-mandibular gland

Salivary gland

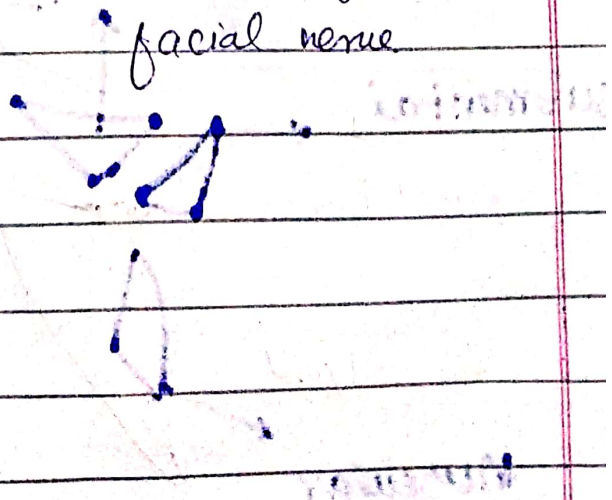
Nasal, Palatine and

Pharyngeal Muscle gland

Lacrimal glands.

During parotidectomy There is risk of
Damaging The Fascial
so we have to
preserve
it.

Removal of ~~sternomastoid~~ - can damage to
facial nerve

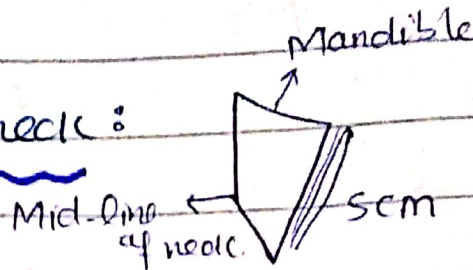


① Triangles of Neck.

* Anterior triangle of Neck.

* Posterior triangle of neck.

Anterior triangle of neck:



Superiorly →

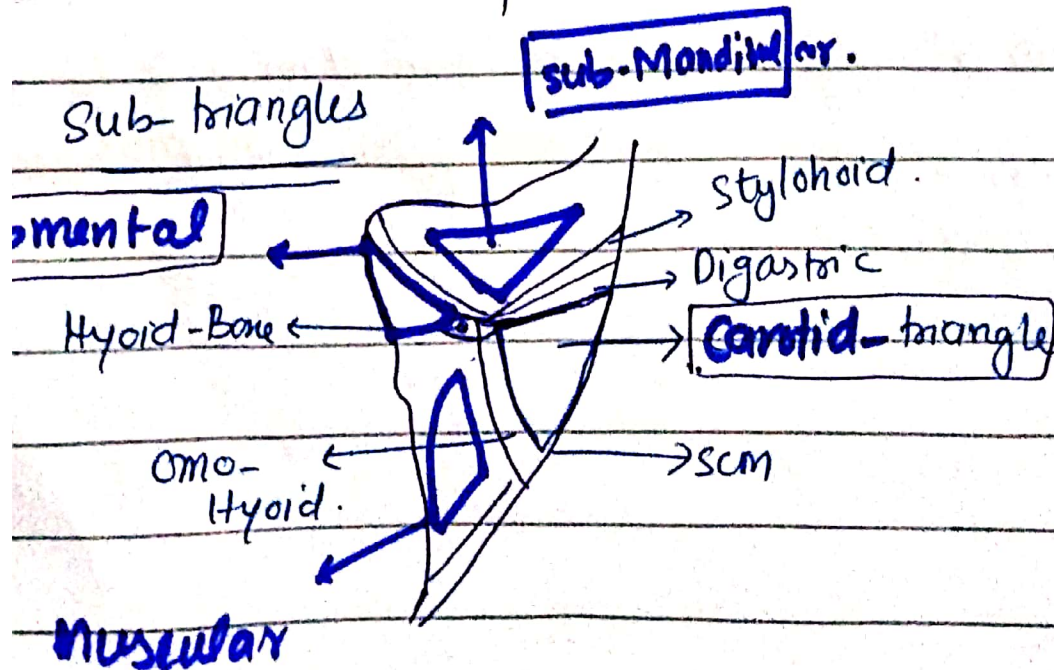
Inferior border of Mandible.

Laterally →

Anterior border of scm.

Medially →

Sagittal line down the mid-line of neck.



Carotid

Superior : Posterior Belly of digastric

Lateral : medial Border of scm.

Inferior : Superior belly of omohyoid.

Sub-mental

(Inferior) I = Hyoid-bone

(medial) M = mid-line of neck.

(Lateral) L = Anterior belly of digastric

Sub-mandibular

(Superior) S = Body of mandible

(Anterior) A = Anterior belly of digastric

(Posterior) P = Posterior belly of digastric

Muscular

Superior = Hyoid bone

Medial = mid-line of neck

superior-lateral = Superior belly of omohyoid.

Supero-lateral. = Superior portion (scm)

Content of A-Triangle

Artery - Common carotid



External carotid

Internal "

Internal Jugular vein.

Nerve - VII - Facial

IX - Glossopharyngeal

X - Vagus

XI - Accessory

XII - Hypoglossal.

Muscle

Suprahoid

Infrahoid

Digastric

Omothyroid

Geniohyoid

Thyrohyoid

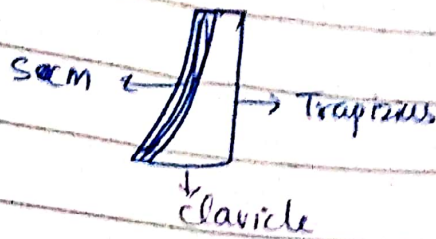
Stylohyoid

sternothyroid

mylohyoid.

sternohyoid.

Posterior Triangle :-



Anterior - Posterior border of SCM.

Posterior - Anterior border of Trapezius

Inferior - Middle $\frac{1}{3}$ of clavicle.

sub-division :-

Occipital Triangle

Sub-clavian Triangle.

Content

Arteries - External Jugular vein.

Sub-clavian vein.

Transverse Cervical vein.

Supra-scapular vein.

Nerves - Cervical plexus

Accessory nerve.