

HANDWRITTEN NOTES

DAMS

α

SURGERY

VOL-2

CRISP, CONCISE, CONCEPTUAL

Integrated Edition





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HOW TO MAKE BEST USE OF NOTES?

A Message by Mentor Duo Specially for you,



- Read the notes thoroughly, they are absolutely **concise, crisp & conceptual** and hence it is best advised not to add a lot of extra information to them as that will dilute the quality.
- Images have been provided alongside to aid in better understanding and also help you solve image-based questions, these images have been specially picked by the faculty so have a high probability of being asked in exams.
- Notes are handwritten in a way to help make them easier to retain, a lot of tables, graphs and algorithms have been used to simplify the learning.
- While reading notes try and use the **CFAQ technique** —
 - A. Use the C to denote concept part in the notes and ensure you are clear with this part in the first go if not then it's advisable to listen to this part of the video from your course.
 - B. Use the F To denotes facts in your notes, it is okay if you can't remember them in first go but will need repeat reading. But these facts are important for exams as they could be integrated to clinical questions.
 - C. Use A to denote applied parts, this is how concepts and facts are asked indirectly in exams. This will also help you develop MCQ solving skill.
 - D. Use Q to denote areas where faculty has said it's a direct question or a PYQ or a potential question.
- This technique will help you summarize your notes In way that your second reading will become easy and faster.
- Active space has been provided with these notes to make your own annotations alongside and this will help you maintain one single notebook for one subject.
- Try and solve MCQs with every topic from DQB. Your goal should be to start with at least 30 MCQs every day and then increase to at least 50 MCQs every day. Also, when you do a topic wrong write it alongside the notes that this topic needs to be read again but mark only the specific area that you have done wrong not the whole topic.
- After the topic is covered then in the active space try and summarize the topic in the form of mind map. This will help in active recall and make your revision easier.

Best Wishes & Happy Learning!!!!



INDEX

ESOPHAGUS

1	Esophagus Anatomy	1
2	Zenker Diverticulum	5
3	Esophageal Webs	8
4	Esophageal Ring	9
5	Tracheo-Esophageal Fistula	12
6	Esophageal Perforation	16
7	Achalasia Cardia	21
8	Hiatus Hernia	25
9	GERD	26
10	Esophageal Cancer	32
11	Dysphagia Lusoria	40

STOMACH

1	Congenital Hypertrophic Pyloric Stenosis	41
2	Menetrier's Disease	44
3	Gastric Volvulus	45
4	Bezoar	46
5	Acid Peptic Disease	49
6	Gastric Cancer	68

INTESTINE

1	Duodenum	83
2	Meckels Diverticulum	88
3	Intussusception	91
4	Carcinoid	95
5	Intestinal Obstruction	99
6	Celiac Disease	106
7	Short Bowel Syndrome	107
8	Mesenteric Cyst	109
9	Malrotation of Intestine	111
10	Appendicitis	113

11	Volvulus	121
12	Diverticulosis	123
13	Angiodysplasia	125
14	Hirschprung Disease	126
15	Colorectal Cancer	130
16	Haemorrhoids/Piles	151
17	Fissure in Ano	154
18	Fistula in Ano	156
19	Pilonidal Sinus	159
20	Rectal Prolapse	162
21	Solitary Rectal Ulcer Syndrome	163

HERNIA & BARIATRIC SURGERY

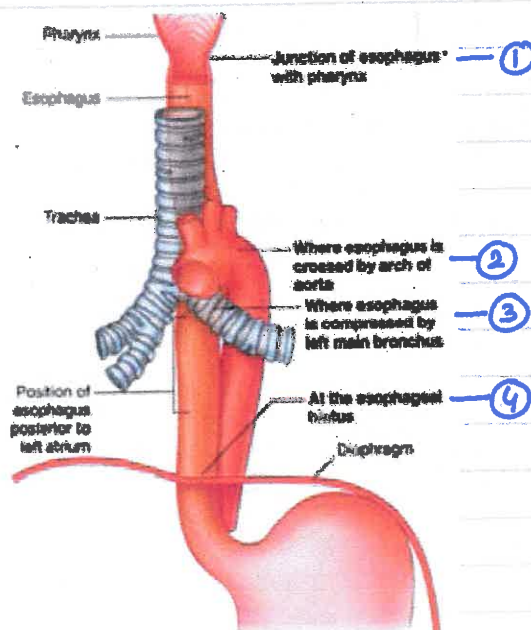
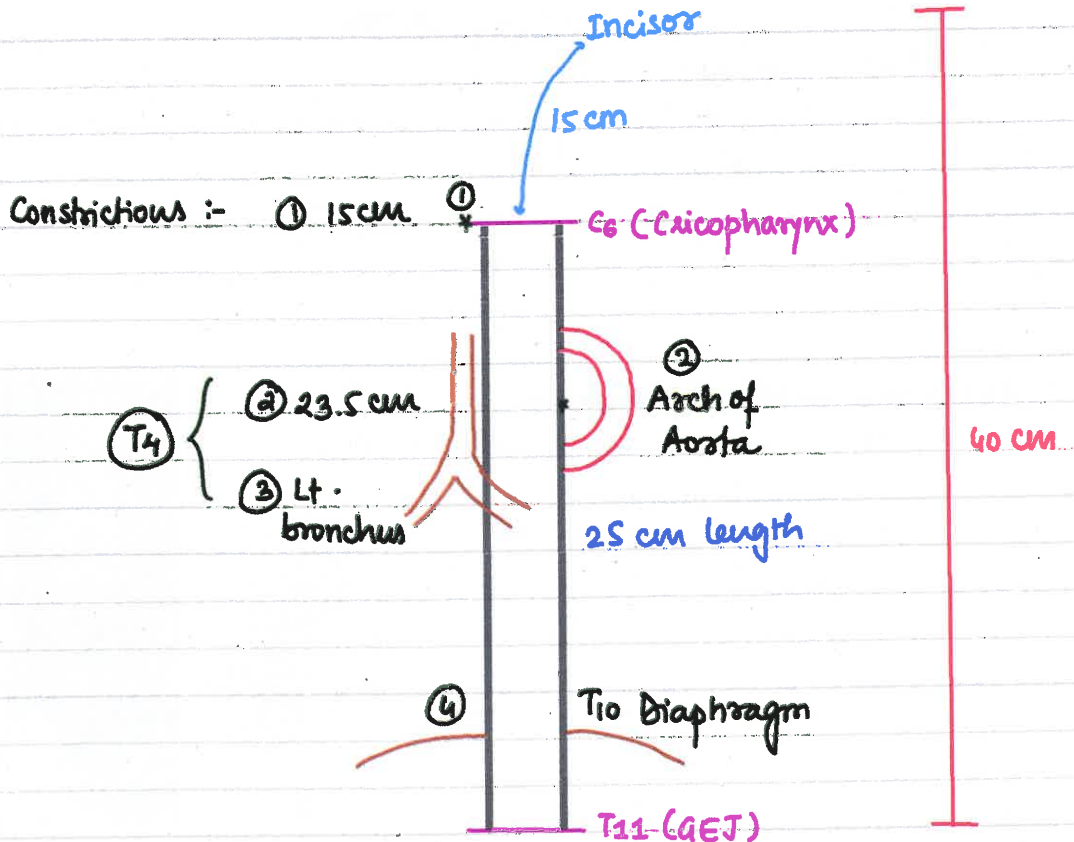
1	Hernia	165
2	Bariatric Surgery	182

UROLOGY

1	Congenital Anomalies	191
2	Renal Infections	203
3	Childhood Solid Tumors: Neuroblastoma	225
4	Bladder Cancer, Bladder Stone, Neurogenic, Infections and Infestations	230
4	Prostate Cancer, BPH and Otherprostate	245
5	Urological Trauma	253
6	Testis-Urethra Muscle	265

ESOPHAGUS

ESOPHAGUS ANATOMY



→ Special features :-

1) No Serosa

- mucosa
 - submucosa
 - muscle
 - ↳ Circular
 - ↳ Longitudinal
 - serosa
 - ↳ in esophagus : no subserosal venous plexus
- Toughest layer* (pointing to submucosa)
- in Esophagus veins are located submucosally.* (pointing to submucosa)
- muscularis mucosa* (pointing to mucosa)
- In Gall bladder :- submucosa, muscularis mucosa is absent*

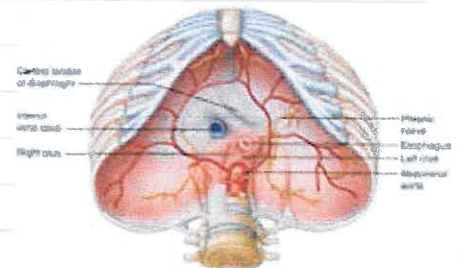
2) Helicoidal pattern of muscles

- ↳ corkscrew appearance → DES
- ↳ Distensibility +nt.

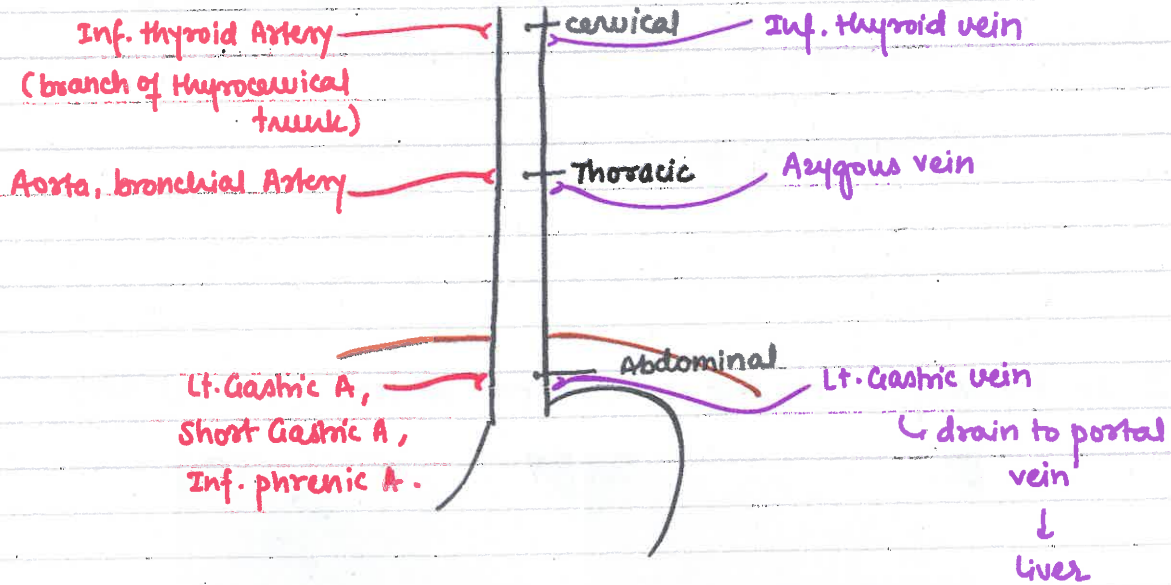


→ Diaphragm :-

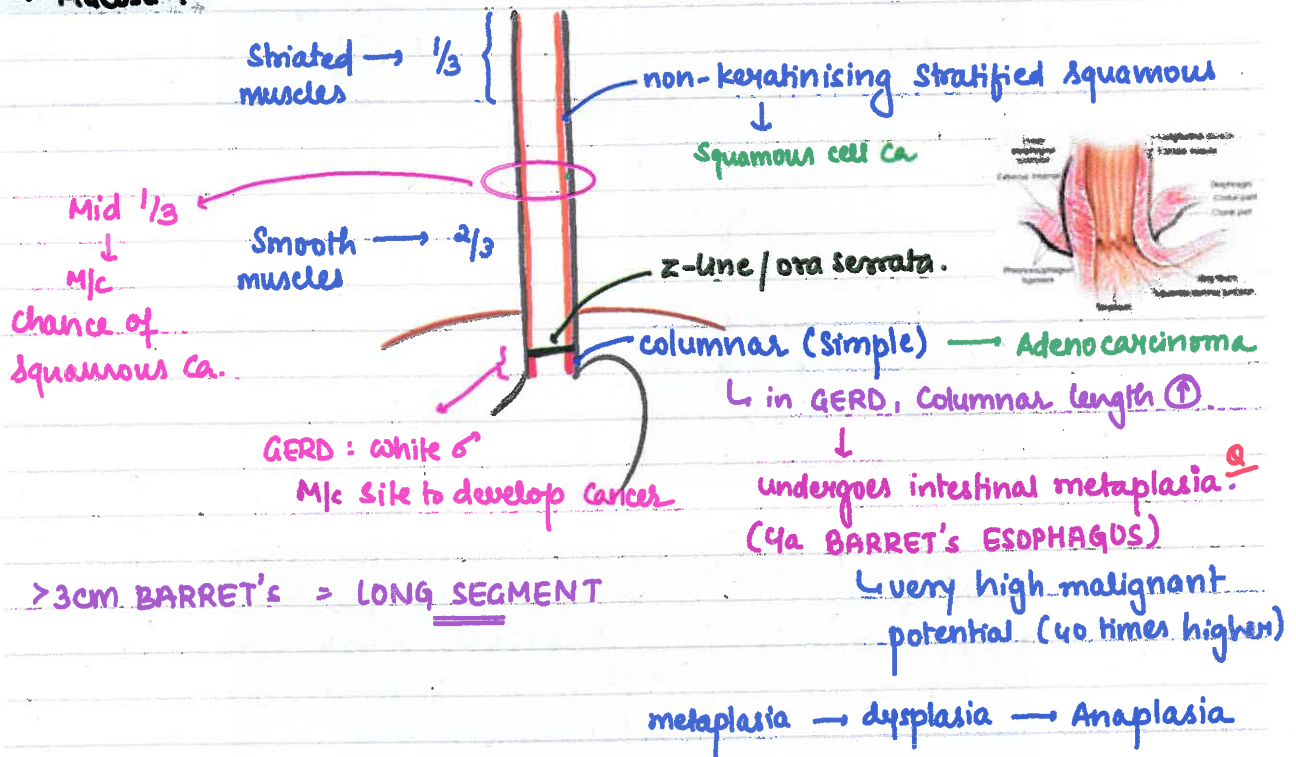
- T8 → central Tendon, vena cava, Rt. phrenic nerve
- T10 → Esophagus, B/L vagus, Esophageal branch of Lt. Gastric Artery
- T12 → Aorta, Thoracic duct, Azygous vein.



→ Blood Supply of Esophagus :-

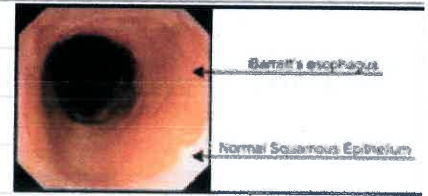


→ Mucosa :-



→ Dye : chromoendoscopy :-

↳ screening

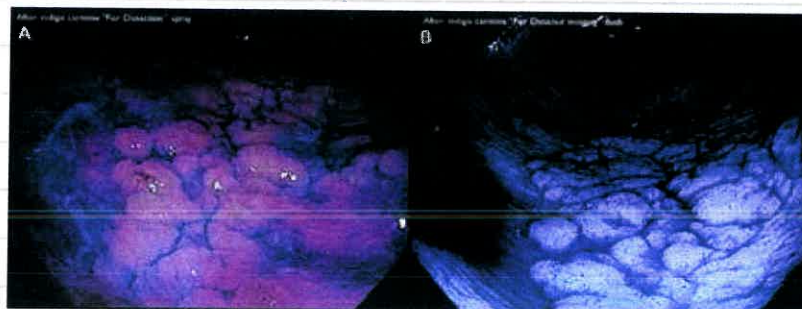
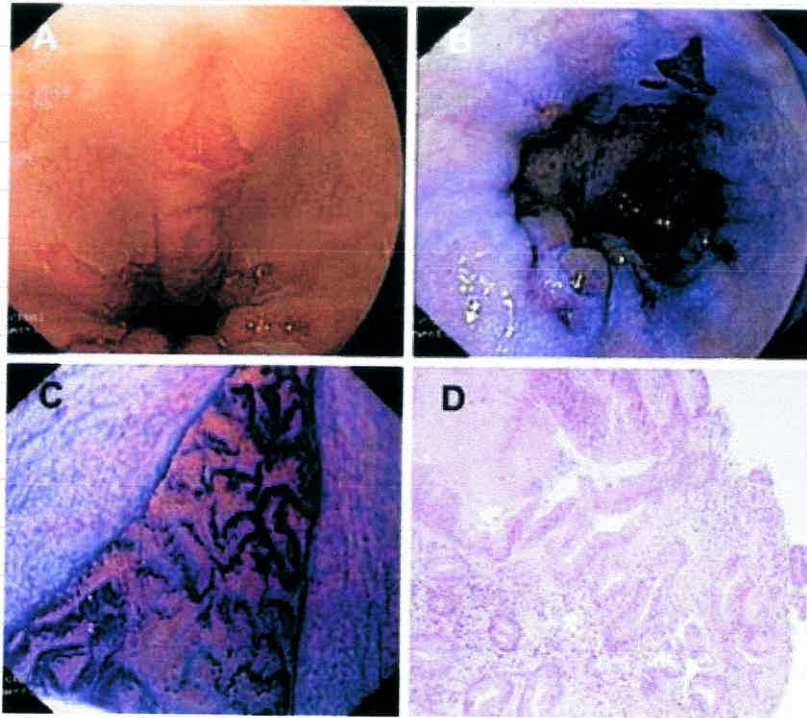


@ dye for Columnar epi → Methylene blue (Barretts)

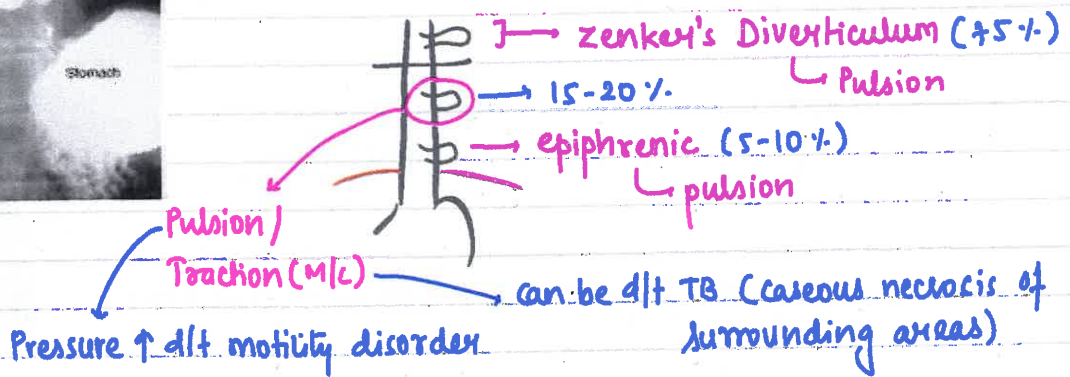
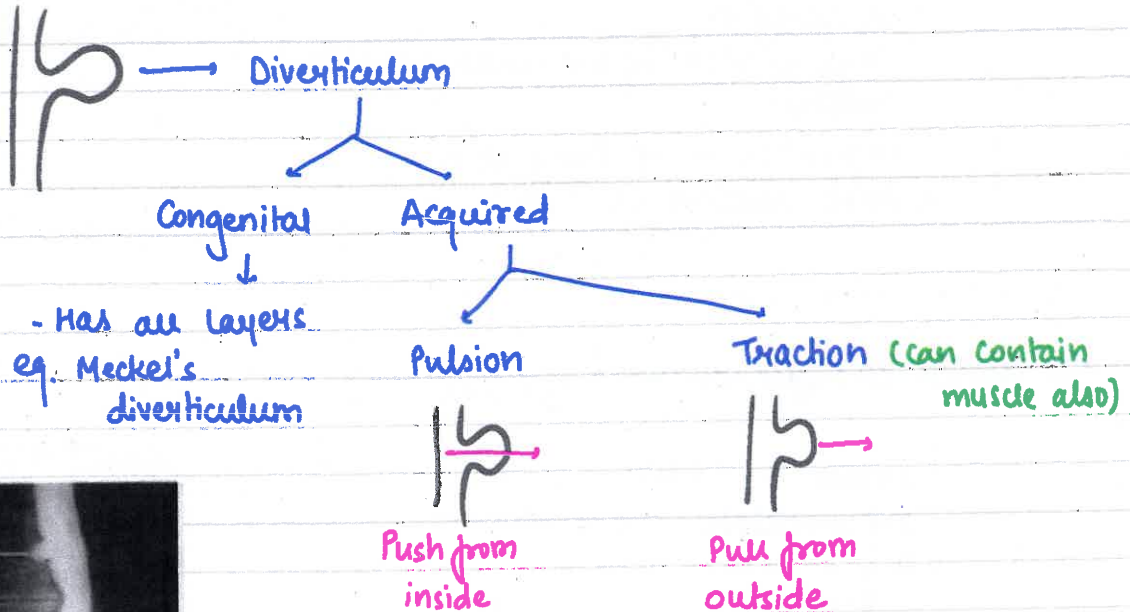
Squamous epi → Lugol's Iodine

In oral cavity Examination :- Toluidine blue.

@ In histology which dye is best for barret's ? Alcian blue.

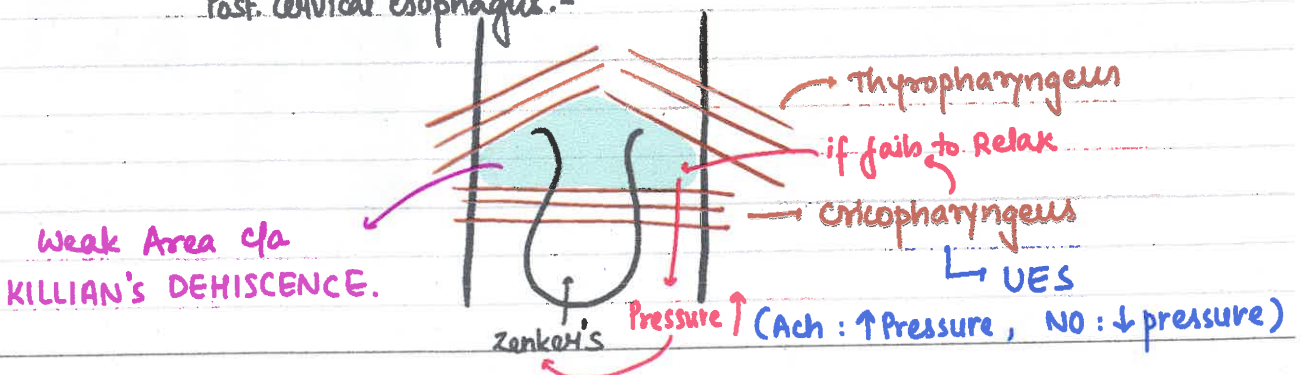


ZENKER DIVERTICULUM



* ZENKER'S DIVERTICULUM :-

Post. Cervical Esophagus:-



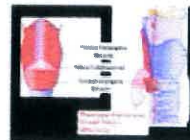
→ C/F :-

- $\sigma > \eta$
- old age (>55 yrs)
- Dysphagia
Regurgitation of old undigested food
Halitosis.
- Aspiration → lung abscess
- Neck Swelling (Lt. > Rt.)

#MGE 2021

Q: Sullivan's triangle is situated between?

- ✓ 1. Thyropharyngeus and Cricopharyngeus
2. Thyropharyngeus and stylopharyngeus
3. Inferior and the middle constrictor
4. Cricopharyngeus and stylopharyngeus

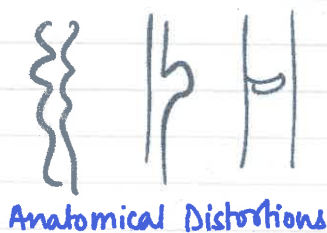


→ Risk of Cancer ↑ by 0.5 %.

→ Mosten classification :- b/o Size

- Small = <2 cm
- Intermediate = 2-4 cm
- Big = >4 cm

→ Investigations :-



= Contrast study

↳ BarSO₄

↓

Barium Swallow



- IOC = Barium Swallow
- Endoscopy
- Manometry

→ CT Scan not required.



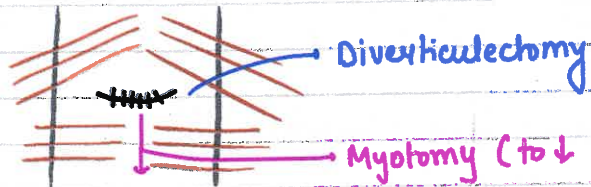
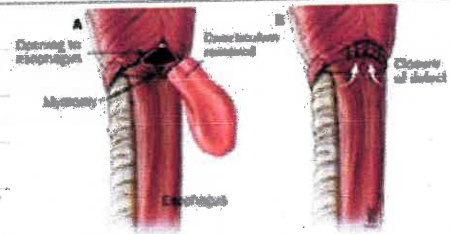
AP



Lat.

→ Rx :-

→ RxOC (>4cm) : Surgery



↳ Cricopharyngomyotomy.
• cervical myotomy

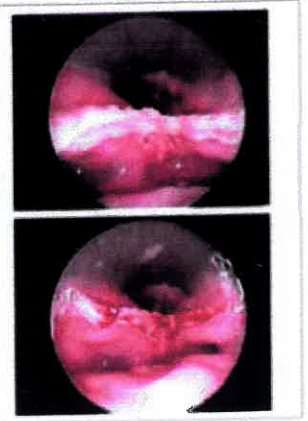
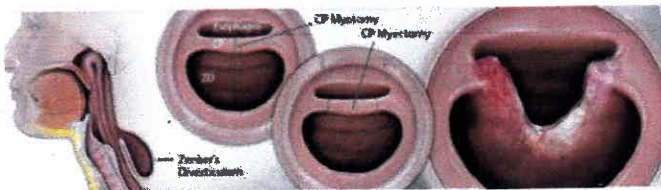
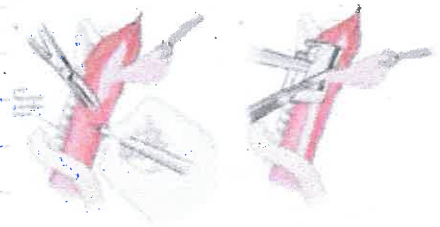
→ RxOC (<2cm) : Myotomy / Inj. botulinum toxin

→ RxOC (2-4cm) : Myotomy / Inj. botulinum toxin + Diverticulopexy



→ Dohlman's operation

- ↳ endoscopic operation.
- ↳ linear staplers used
- ↳ done for diverticulum (2-6cm).
- CO₂ laser can also be used.



ESOPHAGEAL WEBS

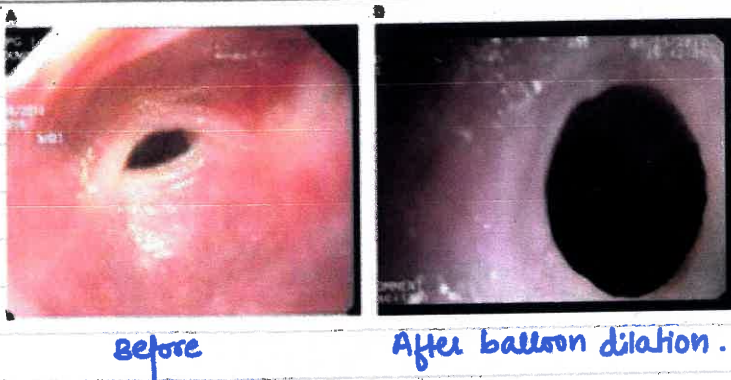
- Plummer winson Syndrome
- Peterson brown kelly Syndrome

- ↳ Found post Cricoid (cervical Esophagus)
- ↳ Asymmetrical mucosal web



- ↳ ♀ > ♂
- ↳ >40 yrs
- ↳ Associated with Iron deficiency Anemia
- ↳ Cf : Dysphagia (Sideropenic dysphagia)
- ↳ ↑ Risk of Cancer
- ↳ IOC : Barium Swallow
- ↳ Ex : Give Fe - & Correct Anemia
 - ↳ if web is Symptomatic
 - ↳ Go Balloon Dilation.

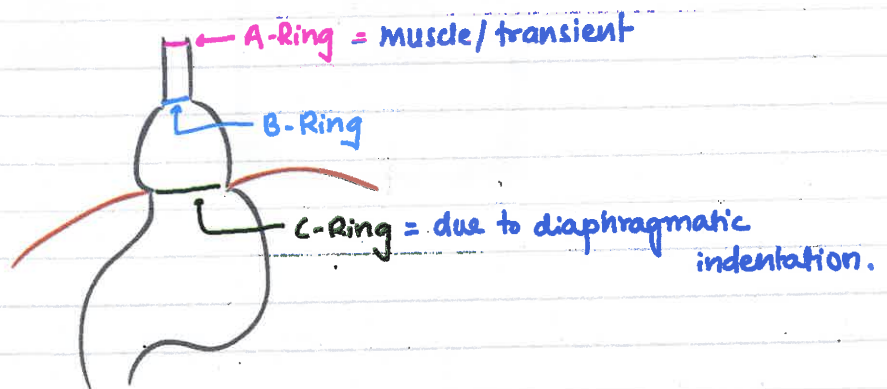




ESOPHAGEAL RING

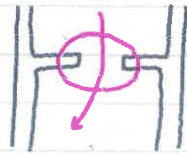
Ca. Schatzki Ring / B-Ring

- Symmetrical
- Mucosal
(No muscle involved)
- Found @ GEJ above diaphragm.
 - ↳ associated with sliding Hiatus Hernia
- Caused by GERD.



→ c/f :-

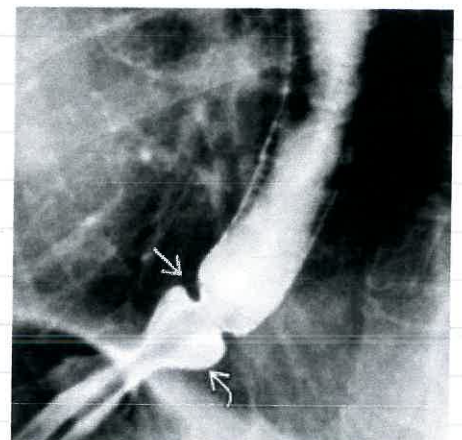
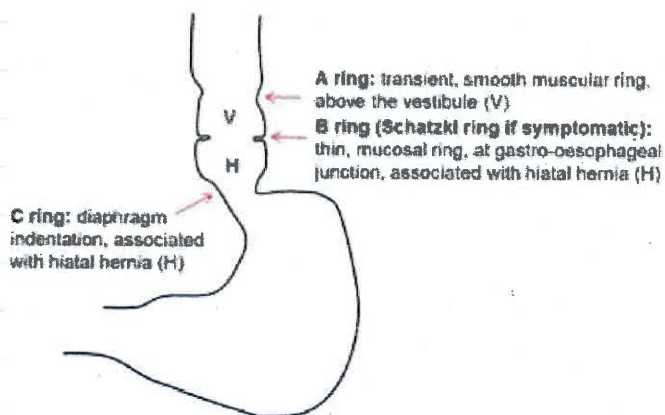
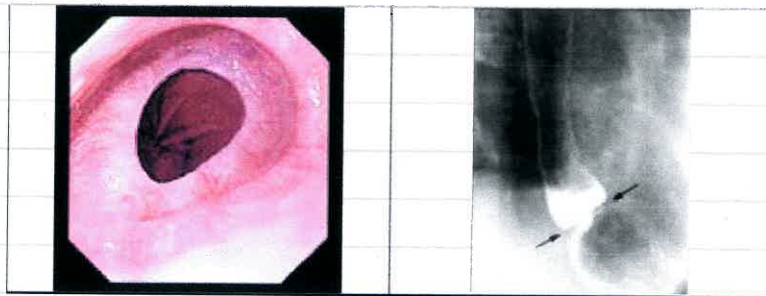
- $\sigma > \text{♀}$
- >40 yrs

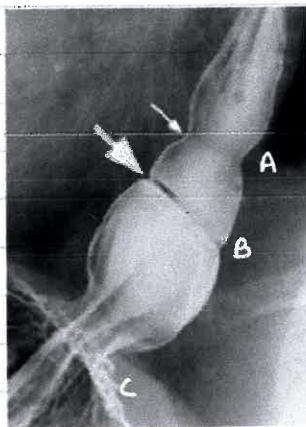
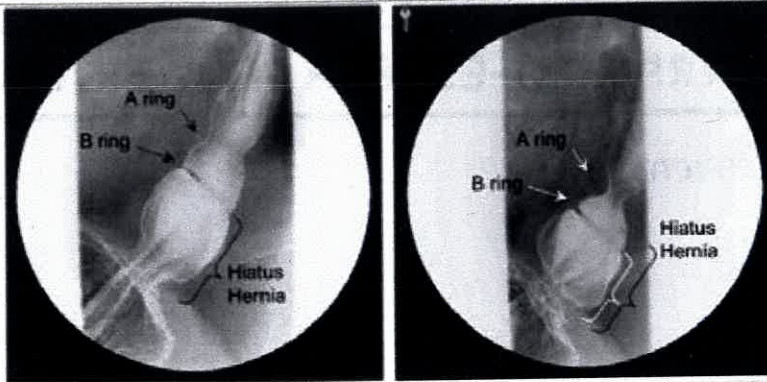


- 10-20% pts remain Asymptomatic
- Symptomatic pts.
 - ↳ no liquid dysphagia
 - ↳ only solid dysphagia
 - ↳ mild-moderate
 - ↳ Episodic
- Sudden Aphagia : meat ball Gets obstructed.
 - ↳ c/a STEAK HOUSE SYNDROME (a)
 - ↳ MCC : Schatzki Ring > DES

→ IOC : Barrium Swallow

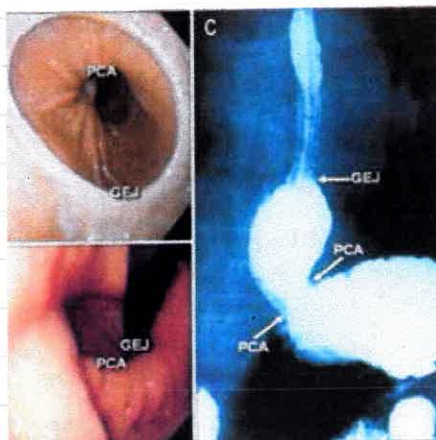
→ Rx : • Treat Reflux (PPI)
• Balloon Dilation





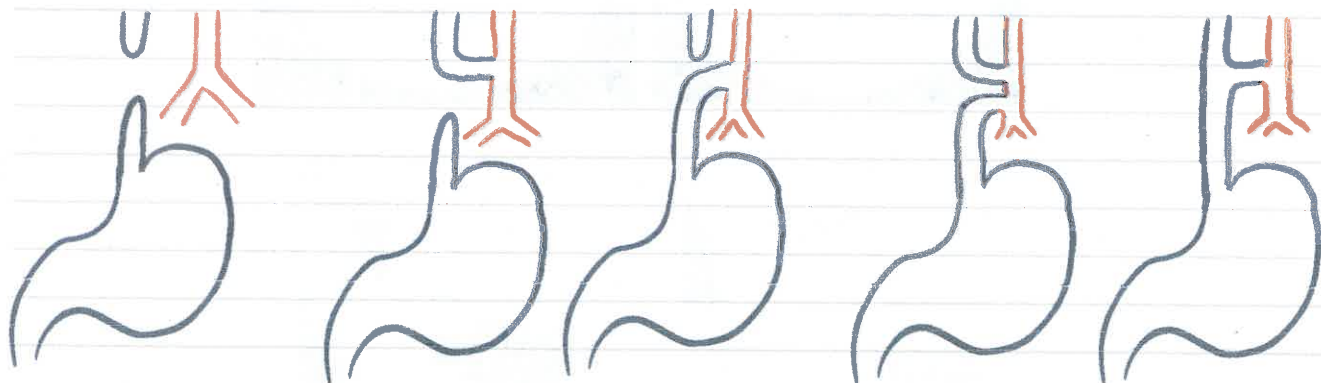
Q. True statements regarding Schatzki ring is/are:

- A. Dysphagia predominately to solids **T**
- B. Increased risk with reflux **T**
- C. Concentric narrowing of lower esophagus symmetrically **T**
- D. Contains esophageal muscle **X**
- E. Consists of esophageal mucosa above and gastric mucosa below **T**



TRACHEO-ESOPHAGEAL FISTULA

→ GROSS CLASSIFICATION :-



Type A
(Atresia)
6%.

Type B

Type C
M/C
>65%.

Type D
(Rarest)

Type E
= Type H
3-4%.

- $\sigma > \text{♀}$
- 1:5000 (Incidence)
- ↑ Risk with Down's Syndrome
- Charge Syndrome
- 50% Children having TEF
 - ↳ mother's have polyhydramnios
- 50% children have multiple congenital Anomalies = VACTERLS Syndrome.

V vertebral
20% A Anorectal
M/C 25% C Cardiac → VSD, PDA, TOF
TE Tracheoesophageal
R Renal
L Limb → Radial Hypoplasia
S Single umbilical Artery.

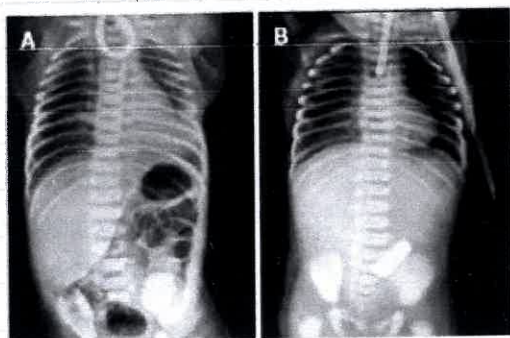
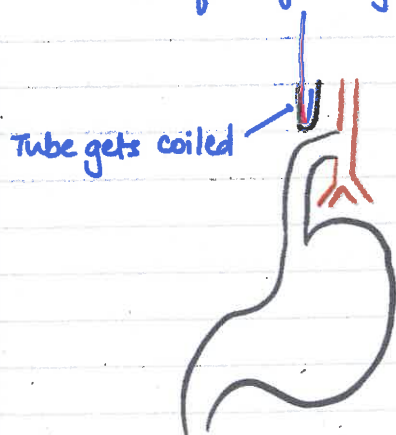
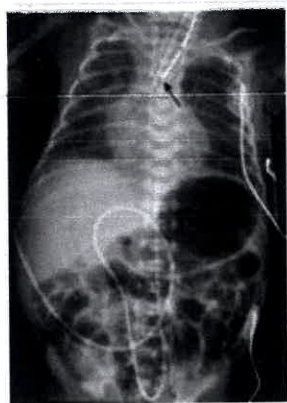
→ Presentation :-

- Drooling of Saliva (Absent in Type E)

- unable to Swallow (Absent in Type E)
- Aspiration & choking while feeding
- Respiratory distress & pneumonitis.
- Abdominal distension (Absent in Type A/B)

→ Investigations :-

- ① Pass a radiopaque Nasogastric tube (infant feeding tube) → x-Ray



② Contrast Study

↳ safest = Iohexol > Gastrografin > Ba Swallow

→ Rx :- • Resuscitation

- O₂
- i/v fluids
- calories (5% dextrose)
- Antibiotics



Decide fitness of baby for surgery b/p pneumonia, birth weight

Sick child



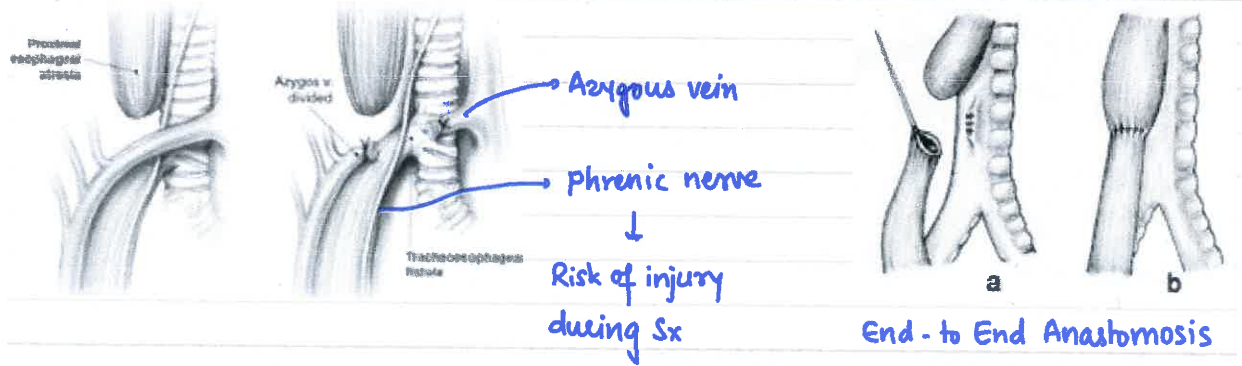
Feeding Gastrostomy

Fit child



Thoracotomy (Postero-lateral)
(from Rt. Side)

↳ Ligate & Cut fistula & esophageal anastomosis



Anastomosis :



End to End End to side Side to Side

→ Sutures :-

→ vicryl (Polyglactin) (Preferred for GIT)

- absorbable
- Synthetic
- Braided

→ Chromic Catgut

- absorbable
- Natural

→ Complications :-

→ late :- Stricture

→ GERD

→ Type A TEF :-



- Feeding Gastrostomy
- Foker operation
- Gastric pull-up
- Jejunal interposition