Case presentations – UGI

THE
GASTROENTEROLOGY FOUNDATION
OF SOUTH AFRICA
Non-Gain Trust IT4253/2006 – Established 2006

Mr van W.

72 years old

Presenting complaints:

2-year history of dysphagia for both solids and liquids – initially solids mainly, now equally liquids
Chokes easily, especially when supine
Symptoms progressively worsening
15kg weight loss
Chest discomfort daily
Occasionally hoarse
No heart burn or regurgitation, unless choking on a food bolus

Medical History:

Hypertension
Cholesterol
Gout
CVA 1999
Raised BMI

Surgical history:

X2 lower back surgeries
X2 knee replacements
X2 shoulder replacements
C5/6 neck fusion

Social:

Previously significant ethanol, less last few years

Medications:

Antihypertensives
Tramadol for neck pain every night
Statin
Ecotrin

What investigation would you like to start with?

A. Endoscopy
B. CT brain
C. Barium Swallow
D. MRI c-spine
E. HR Manometry

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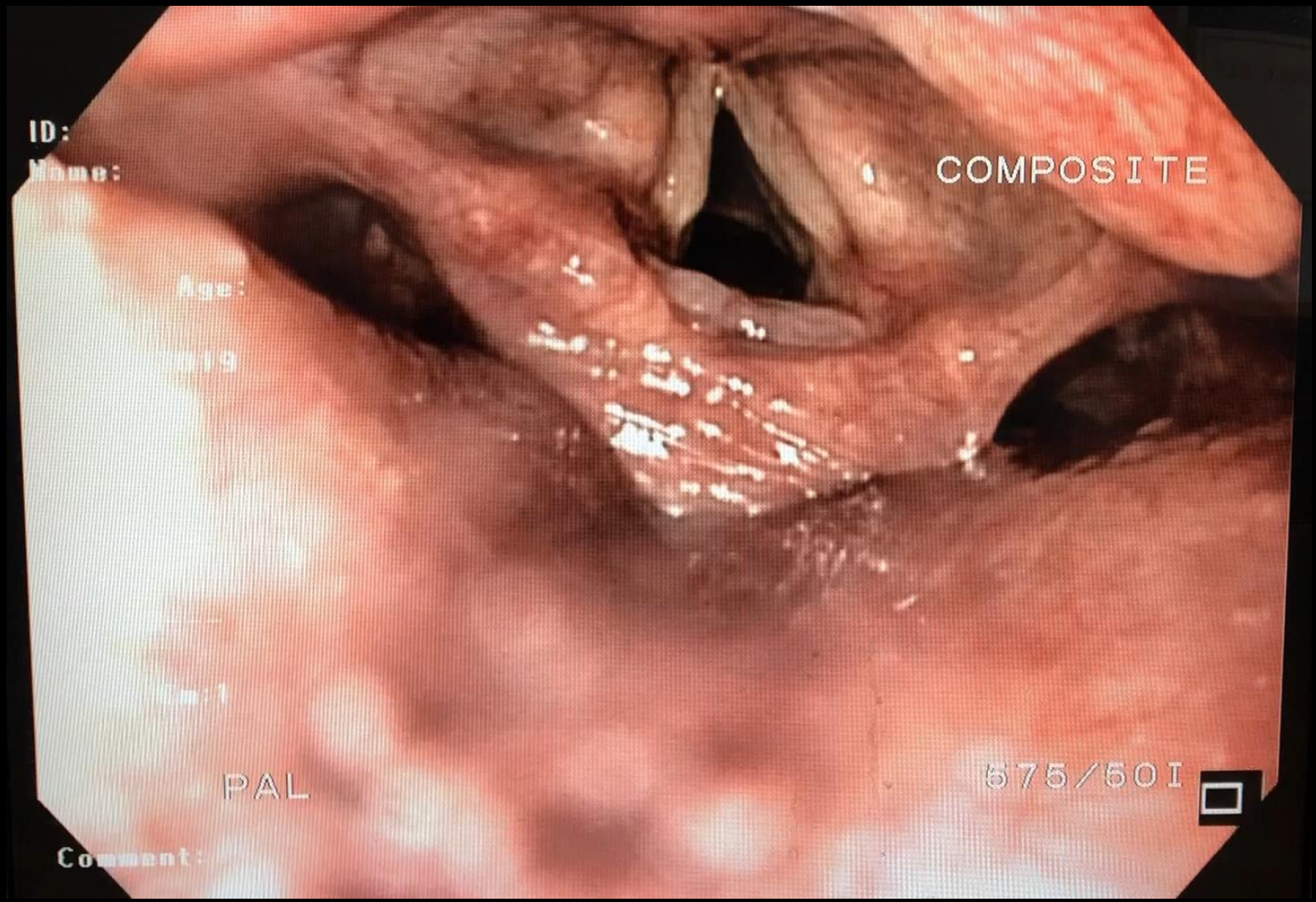

ID:
COMPOSITE
Age:
PAL
575/50I
Comment:

Is this a normal oesophageal endoscopy?

A. Yes
B. No

Is this a normal oesophageal endoscopy?

A. Yes
B. No

Concerns were slight dilatation, more saliva than most, some difficulty in passing across OGJ

Would you have biopsied this oesophagus?

A. Yes
B. No

Would you have biopsied this oesophagus?

A. Yes
B. No

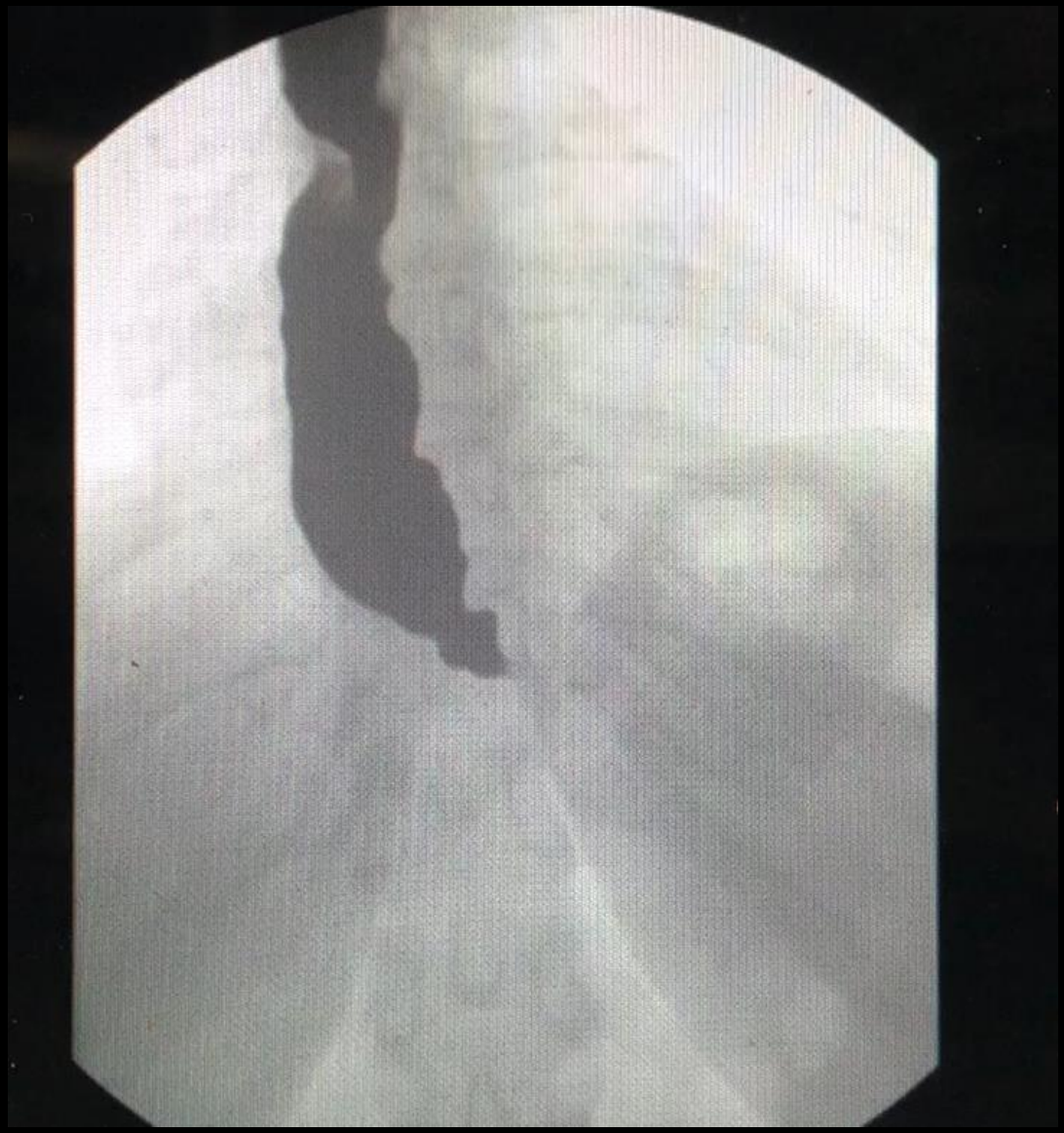
To those of you that biopsied, what are you looking for?

What would you like next?

A. Barium meal and follow through
B. HR manometry
C. HR Manometry and impedance
D. Barium swallow
E. CT chest and upper abdomen

What would you like next?

A. Barium meal and follow through
B. HR manometry
C. HR Manometry and impedance
D. Barium swallow
E. CT chest and upper abdomen



What is your diagnosis now?

A. OG Junction malignancy
B. Pseudoachalasia
C. Achalasia
D. Hiatus hernia
E. Jackhammer oesophagus

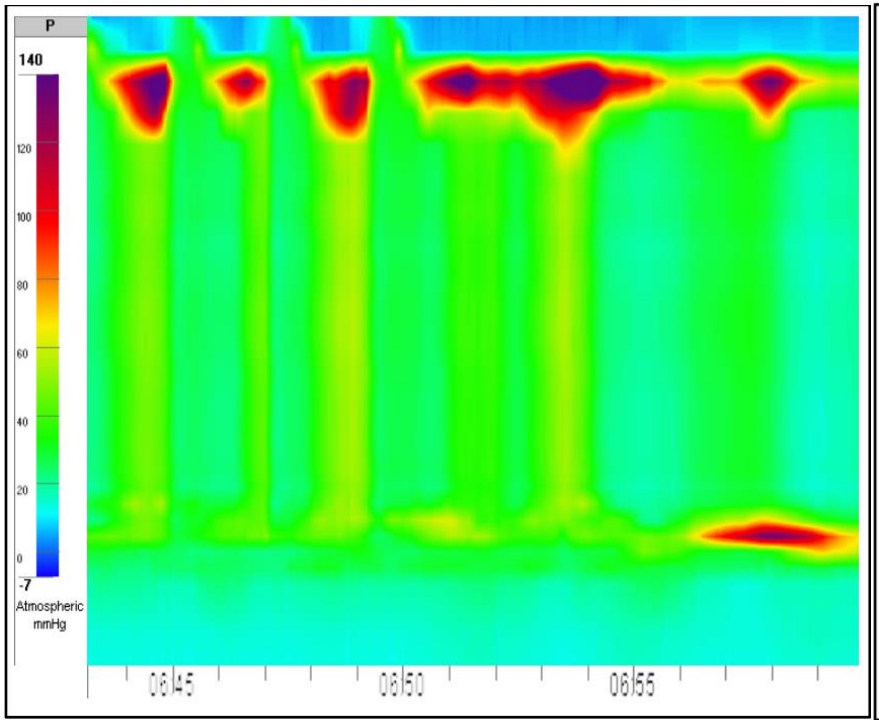
What is your diagnosis now?

A. OG Junction malignancy
B. Pseudoachalasia
C. Achalasia
D. Hiatus hernia
E. Jackhammer oesophagus

C → B → A

HR Manometry (CT chest/upper abdomen)

LOW >10 kg
>70 years
Hx <1 year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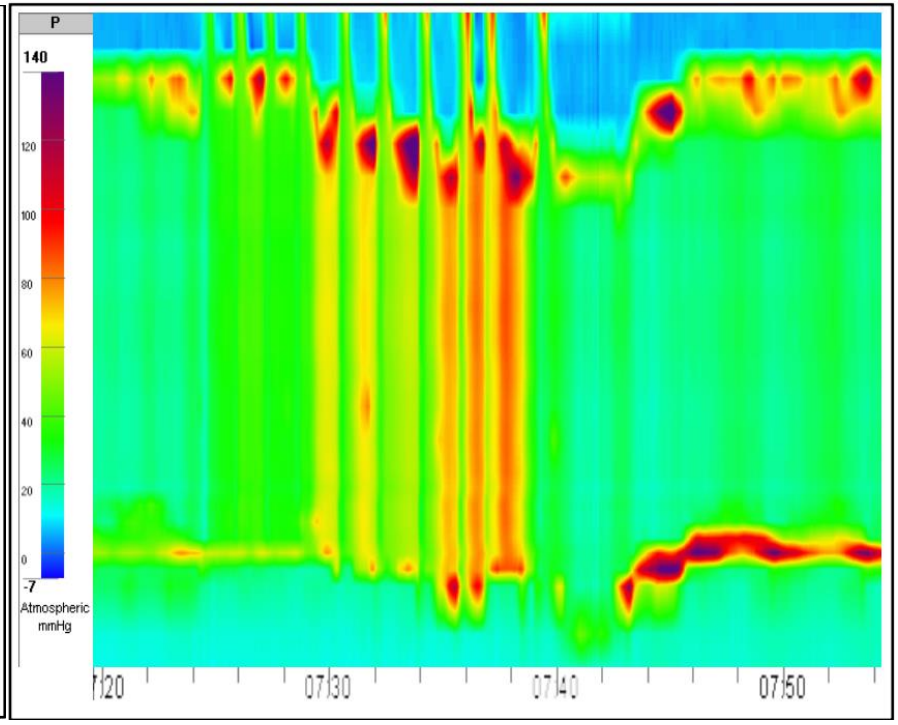
140
120
100
80
60
40
20
0
-7
Atmospheric
mmHg
06:45
06:50
06:55


P
140
120
100
80
60
40
20
0
-7
Atmospheric
mmHg
07:20
07:30
07:40
07:50

What is your plan for Mr van W?

A. Tilazem
B. Botox
C. PB dilatation
D. POEM
E. Laparoscopic Heller's

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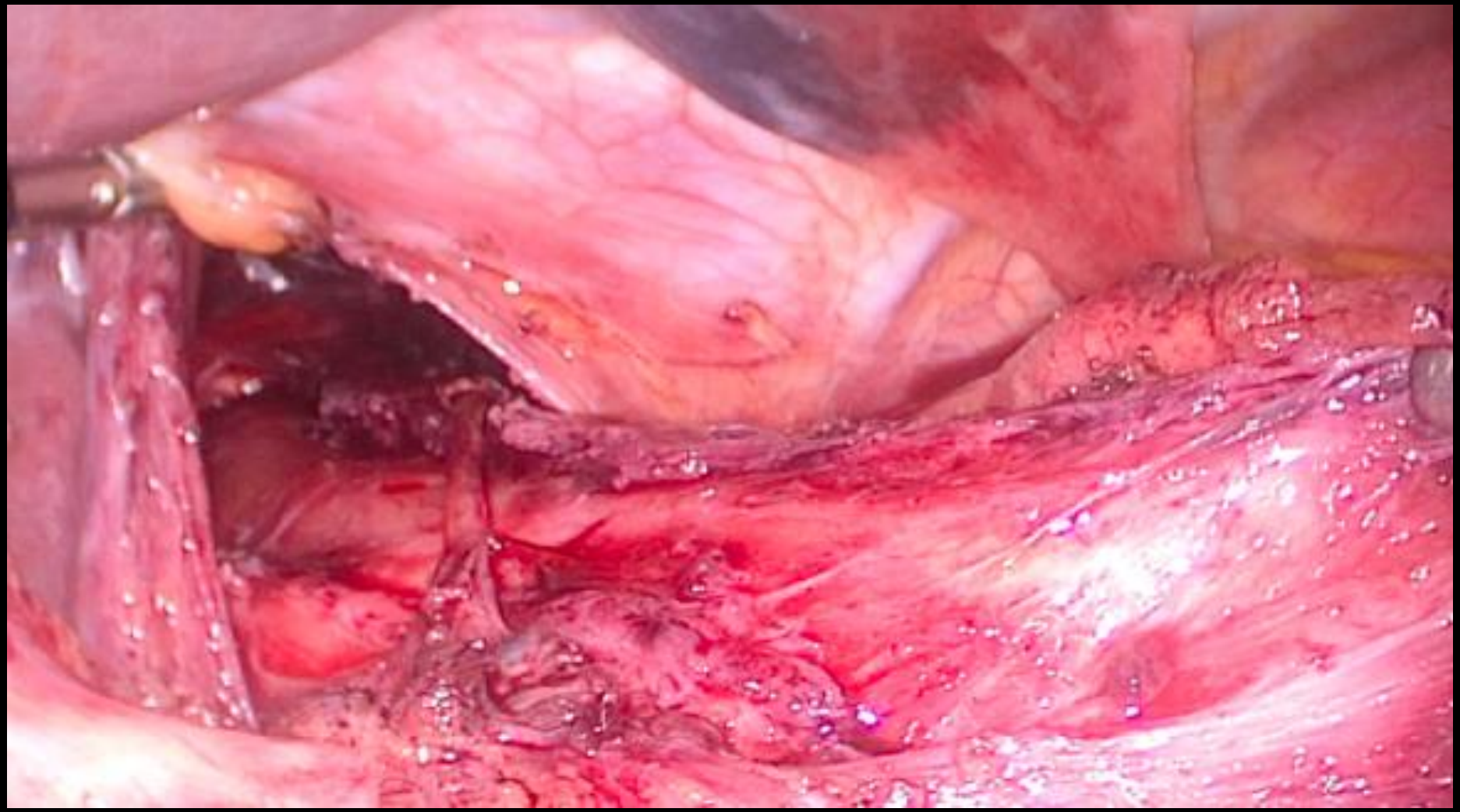



University of Cape Town

Do you perform a post-operative swallow?

A. No
B. Yes

Do you perform a post-operative swallow?

A. No
B. Yes


University of Cape Town

Day 1: Happy and swallowing soft food

BUT still needing to clear throat and now reporting some initiation of swallowing difficulties

Day 2: ENT review normal

Seen by speech therapy and given some tips

Discharged

Day 1: Happy and swallowing soft food

BUT still needing to clear throat and now reporting some initiation of swallowing difficulties

Day 2: ENT review normal

Seen by speech therapy and given some tips

Discharged

Day 3: Readmitted at base hospital

Complete oropharyngeal dysphagia

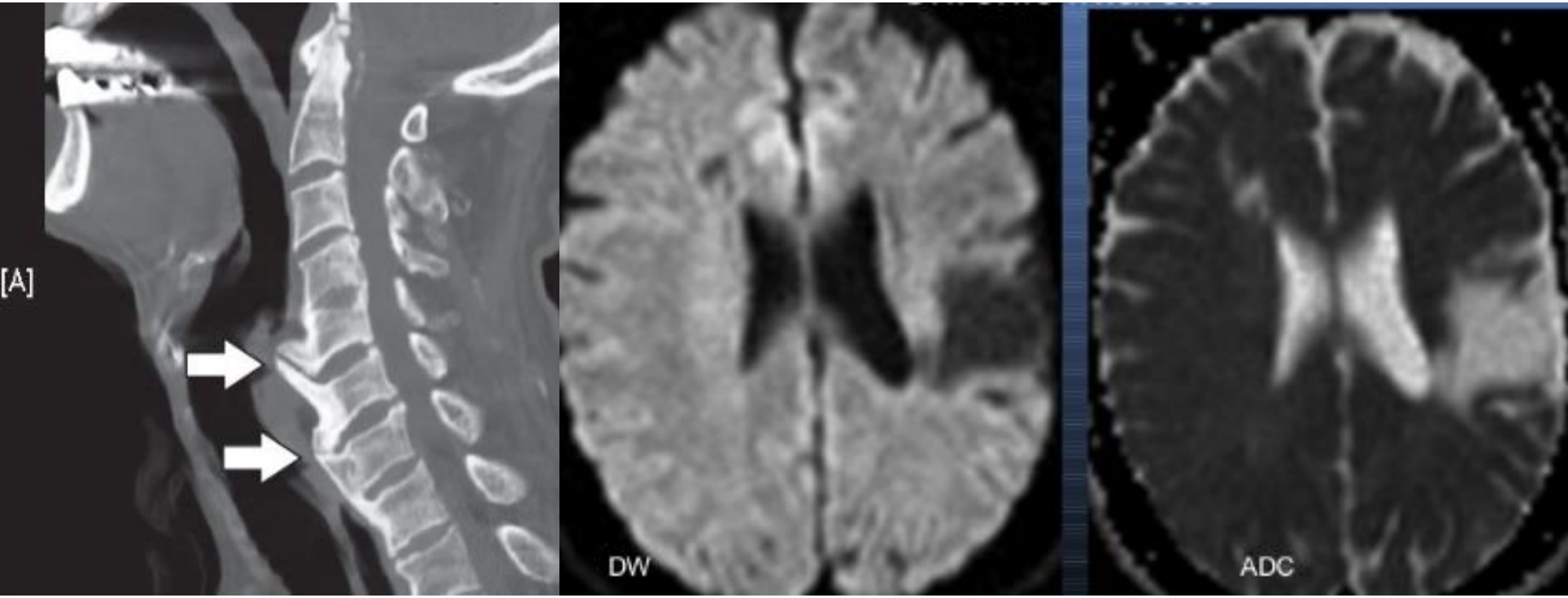
Difficulty with speech, ptosis

Unable to lift arms (C4 nerve distribution)

Why does he have a bulbar palsy and proximal limb weakness?

What investigations would you like performed?

A. CT brain and repeat swallow
B. MR brain
C. MR brain plus C-spine
D. CT chest
E. CT brain and other


[A]
DW
ADC

Transferred to High Care because of airway concerns

Transferred to High Care because of airway concerns

Neurology. 1999 Jan 15;52(2):425-6.

Achalasia and myasthenia gravis in a patient with thymoma.

Kaminski HJ[1].

Paraneoplastic immune-mediated disorders are often associated with thymomas. The most commonly appreciated is myasthenia gravis (MG), but other diseases of the neuromuscular system, such as Lambert–Eaton myasthenic syndrome, neuromyotonia, and peripheral neuropathy, may occur.1 Achalasia is a disorder of esophageal motility characterized by loss of the myenteric ganglionic cells of Auerbach's plexus that leads to impaired relaxation of the lower esophageal sphincter and absent peristalsis.2 The pathogenesis of achalasia is not known, but viral and immune etiologies are the primary considerations. A patient with achalasia and MG associated with thymoma is described, suggesting that achalasia may occur as a paraneoplastic immune disorder.

Case 2 Mrs M.

76 year old lady

5 year history of chest pain, GORD and dysphagia

Medical Hx: HPT

Plan?


35cm, with OGJ at 39cm
Plan?


1/1 pa
C 35
B 14
27-May-2019

What may cause a distal oesophageal diverticulum?

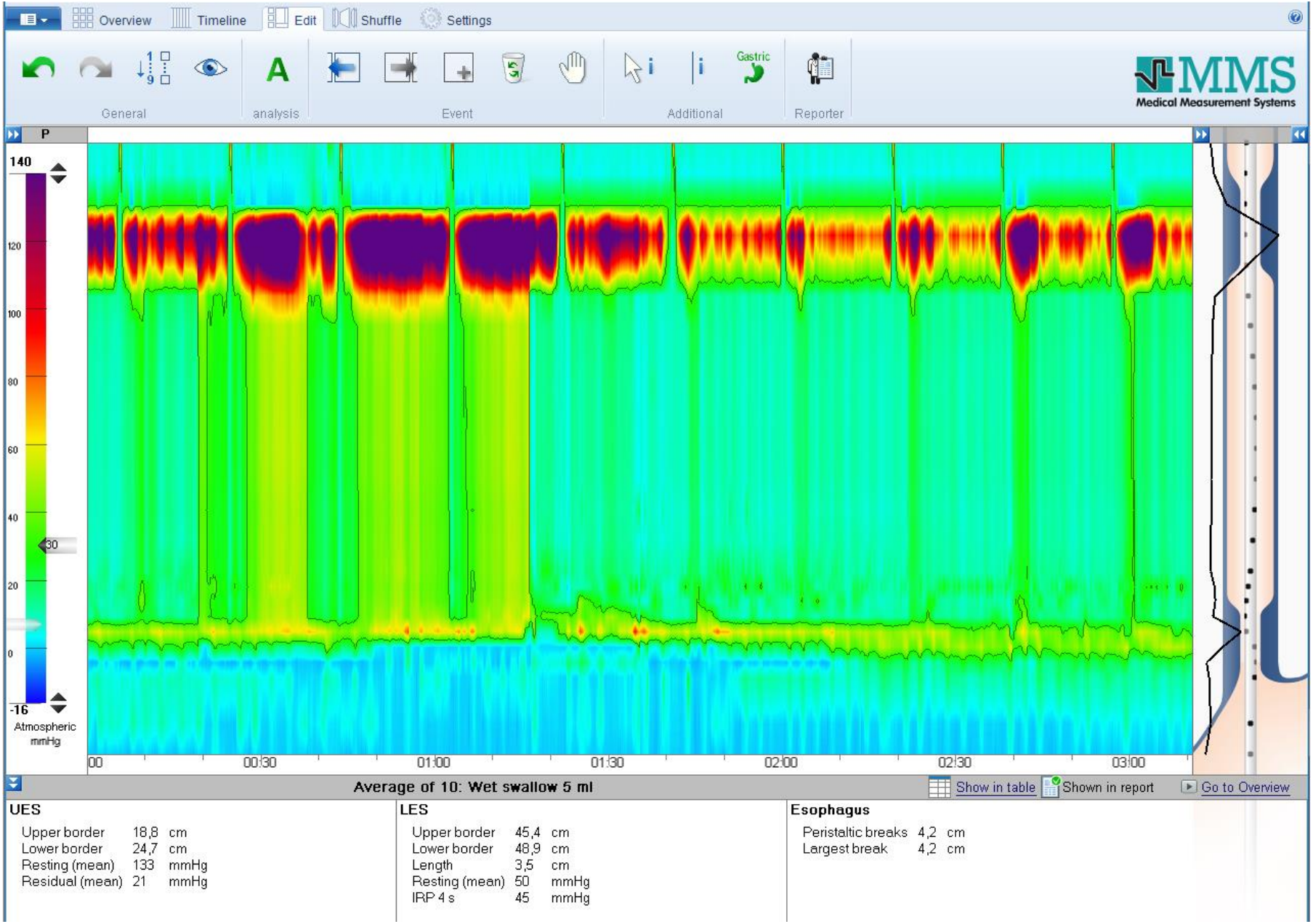
Next step?

What may cause a distal oesophageal diverticulum?

Next step?

Manometry impossible – pt unable to tolerate probe even at nostril

Suggestions?



UES

Upper border	18,8	cm
Lower border	24,7	cm
Resting (mean)	133	mmHg
Residual (mean)	21	mmHg

LES

Upper border	45,4	cm
Lower border	48,9	cm
Length	3,5	cm
Resting (mean)	50	mmHg
IRP 4 s	45	mmHg

Esophagus

Peristaltic breaks	4,2	cm
Largest break	4,2	cm

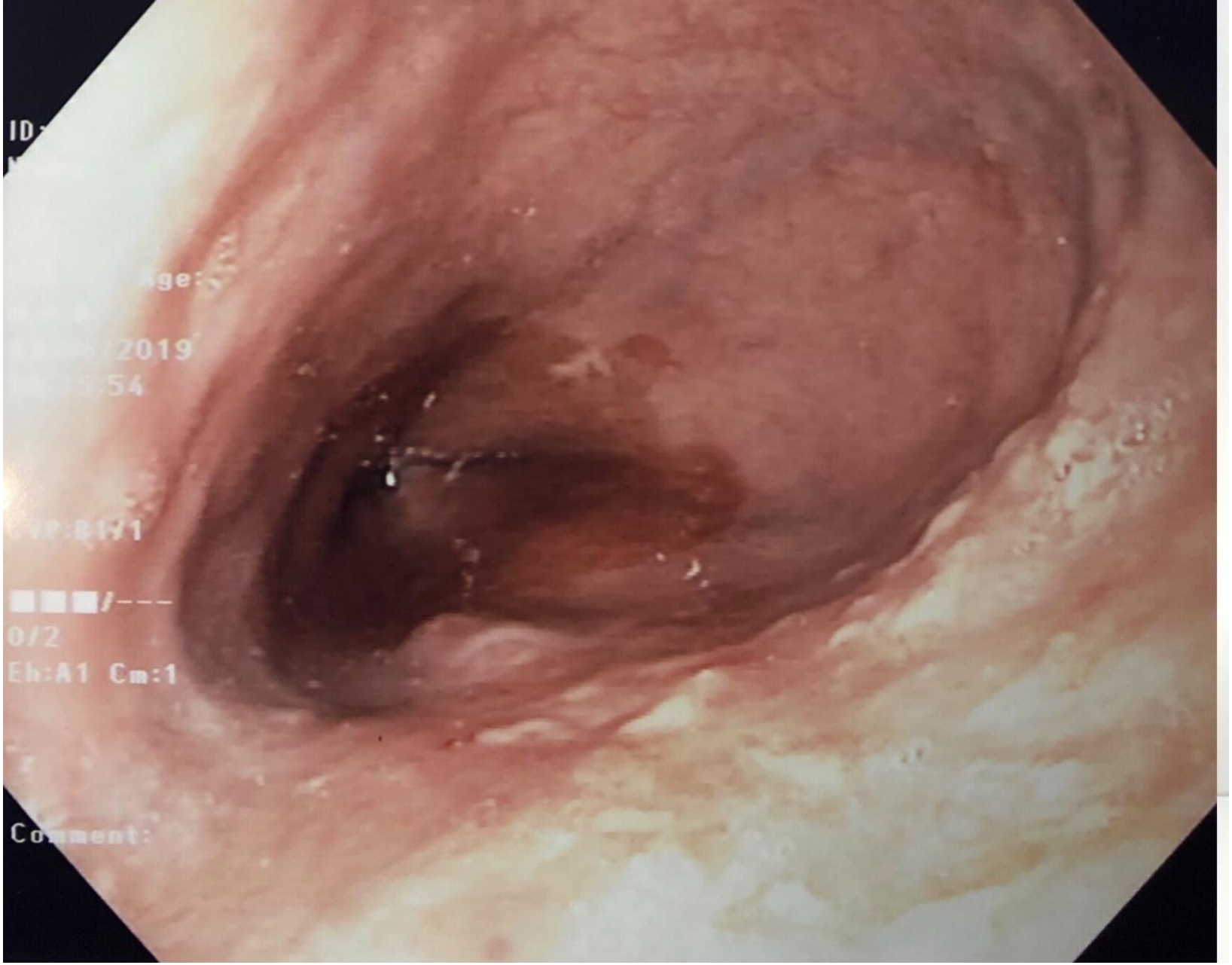
Management plan for type II achalasia in 76 yr old lady with oesophageal diverticulum?

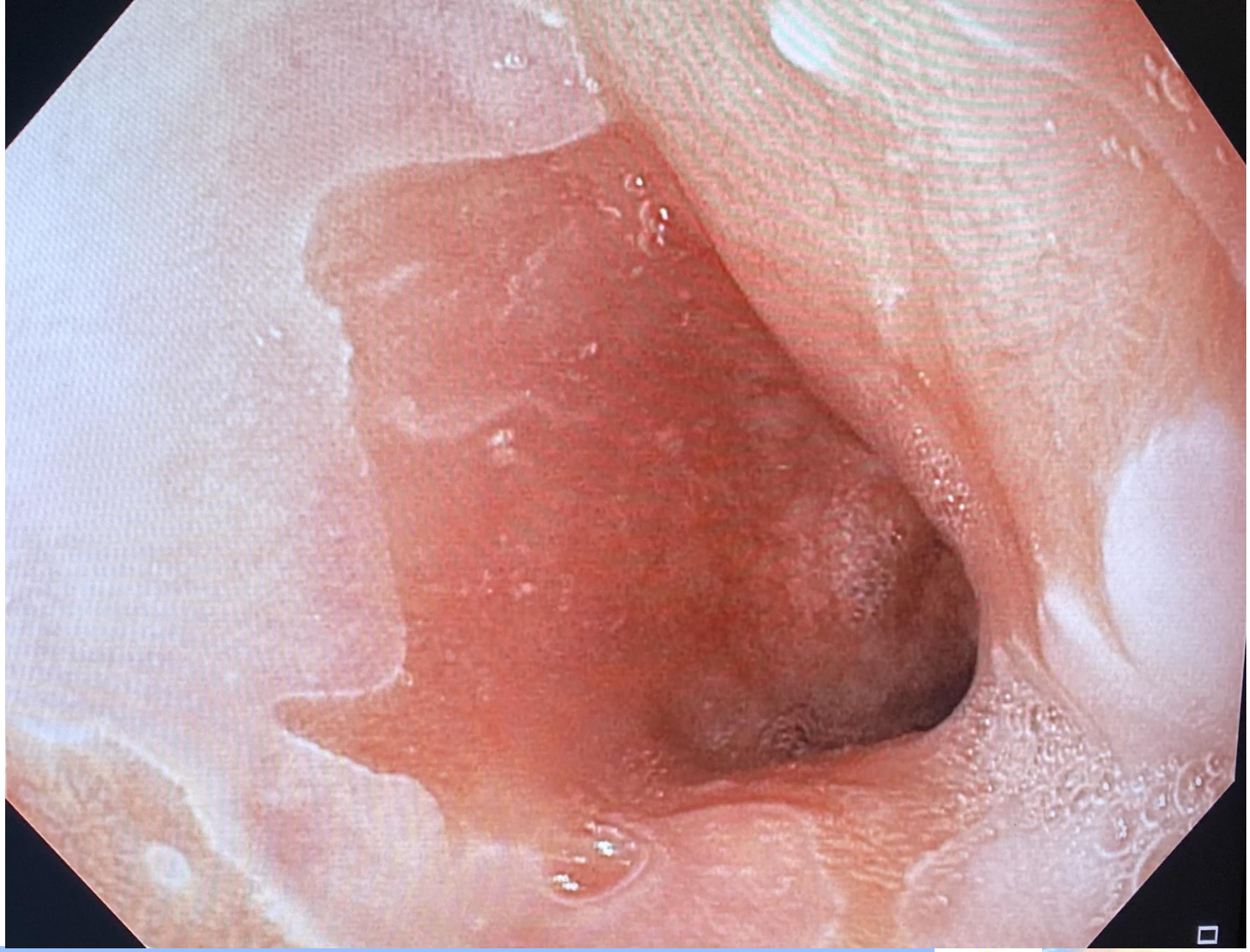

C 35
B 14
25-Oct-2019

62 yr old gentleman Mr S.

Presenting complaints:
Chronic GORD on PPIs
LG Barrett's pre-covid

Co-morbidities:
On Warfarin for previous Aortic valve replacement

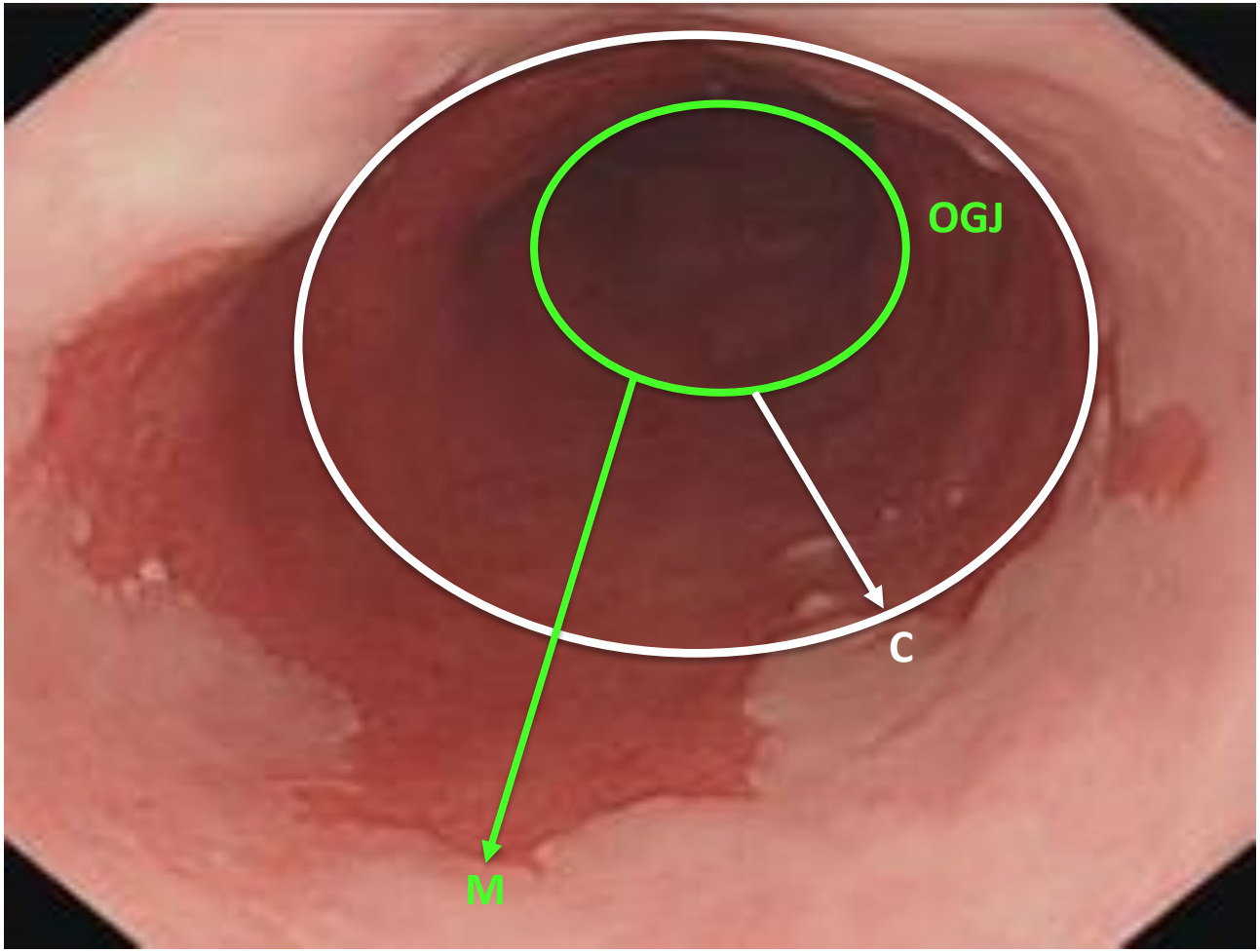

ID:
2019
0/2
Eh:A1 Cm:1
Comment:



Describe this oesophagoscopy


ID:
Name:
Sex: Age:
D.O.B.:
11/03/2021
12:17:25
■■■/---(0/1)
Eh:A1 Cm:1
Comment:

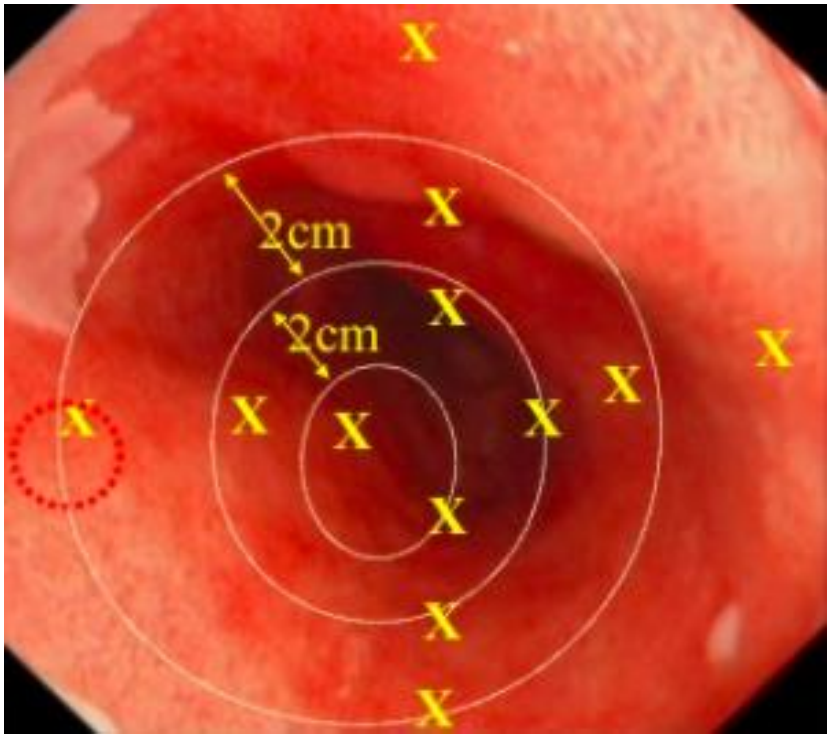
Describing Barrett's: Prague



How do you recommend to biopsy this long segment Barrett's?

Barrett's biopsies: Seattle protocol

Systematic four quadrant biopsies every 2 cm (every 1 cm in pts with known / suspected dysplasia)

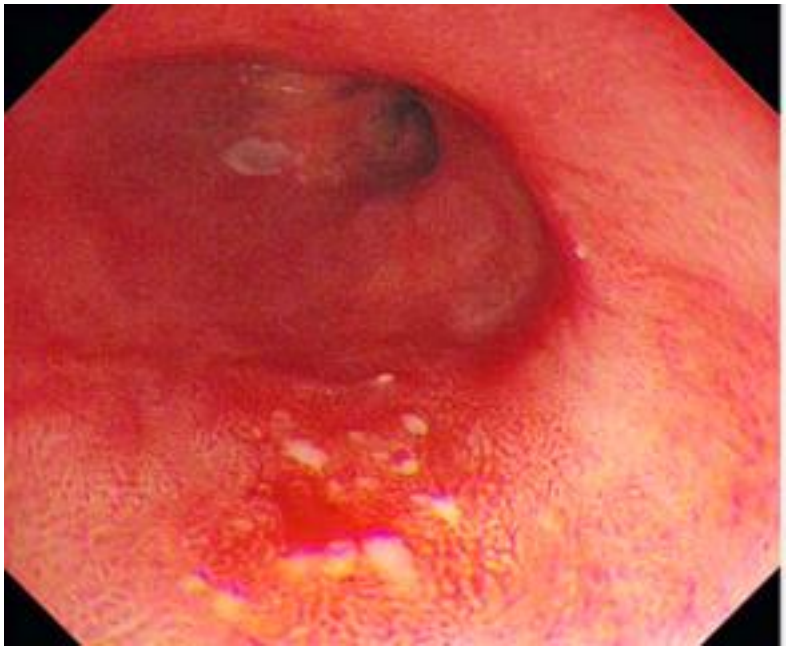


Barrett's: Image directed biopsies

Standard definition white light endoscopy	Provides wide-field imaging and is widely available	Decreased sensitivity when compared to high definition
High definition white light endoscopy	Provides wide-field imaging and is widely available with improved image quality	Cost of procedure, sedation and in some cases updating entire endoscopy system. Some concerns over missed rates of dysplastic lesions
Dye-based chromoendoscopy	Provides wide-field imaging with benefit of mucosal enhancement	Additional steps in procedure are time consuming and some concerns over harm of contrast
Narrow band imaging	Provides wide-field imaging and is widely available with improved sensitivity and without need for contrast. Relatively cheap.	Still requires white light endoscopy as an adjunct with unclear evidence on its benefits when compared to white light endoscopy alone

Steele *et al* World J Gastroent 2019

Dye-based chromoendoscopy



NBI

Acetic acid

Histology Barrett's = LG dysplasia on all biopsies

Lesion at 30cm = at least HG dysplasia

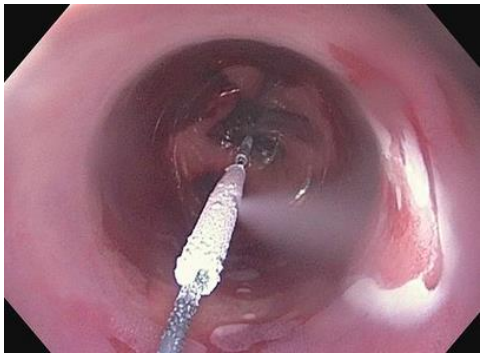
Plans?

Ablation – options available?

(SURF trial)

Ablation of flat Barrett's

Cryotherapy



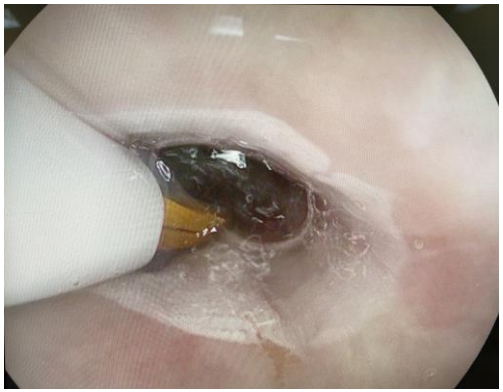
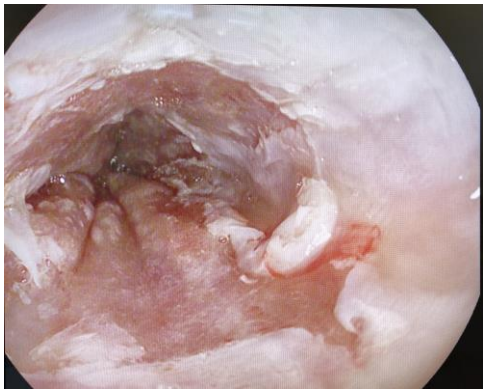
Argon

RFA

Bipolar electrode array with generator applying thermal injury of limited depth (500 - 1000µm)

Circumferential or focal application

Spiceland *et al* Endosc Int 2019
Ramay *et al* Gastroint Endosc 2017

Gastrointest Endosc. 2019 May 17. pii: S0016-5107(19)31715-8. doi: 10.1016/j.gie.2019.05.023. [Epub ahead of print]

Self-sizing radiofrequency ablation balloon for eradication of Barrett's esophagus: results of an international multicenter randomized trial comparing 3 different treatment regimens.

Belghazi K[1], Pouw RE[1], Koch AD[2], Weusten BLAM[3], Schoon EJ[4], Curvers WL[4], Gotink AW[2], Mostafavi N[5], Haidry RJ[6], Pech O[7], Bergman JJGHM[1], Bisschops R[8].

Standard:
Ablate
Clean
Ablate

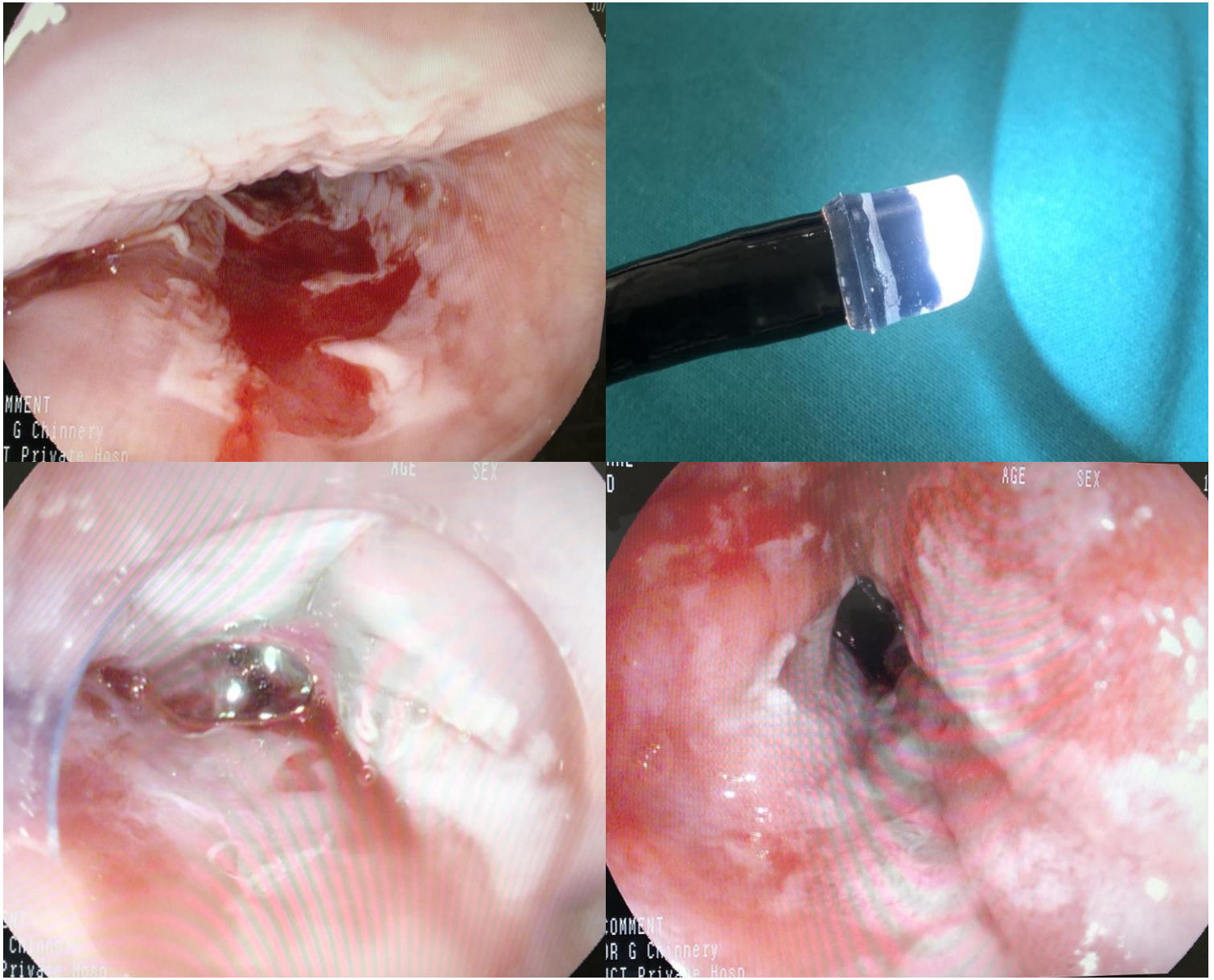
BE regression rate 85%

Double ablation:
Ablate
(no cleaning step)
Ablate

High stenosis rate

Single ablation:
Ablate

BE regression rate 73%

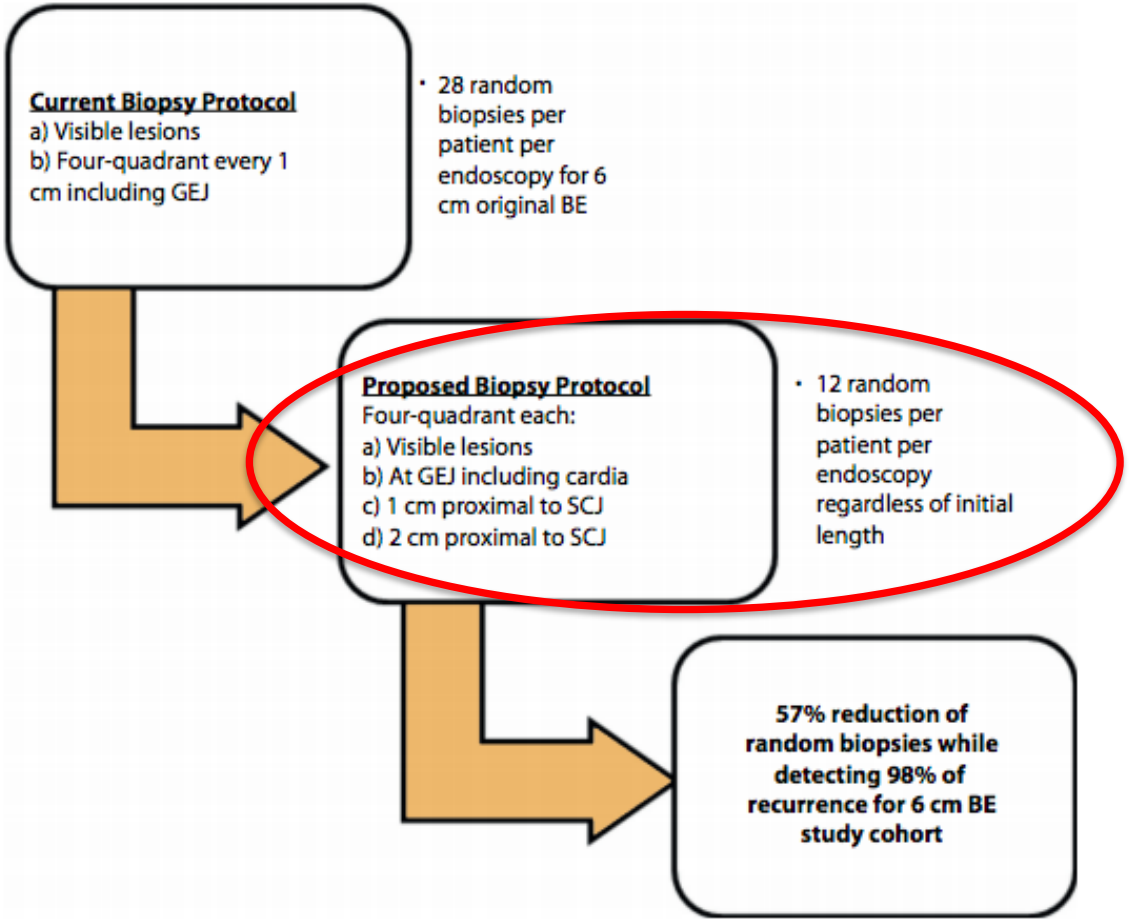

AGE
SEX
AGE
SEX

How often should you ablate?

3 monthly until complete regression or until only intestinal metaplasia

How would you rebiopsy him during his Barrett's surveillance post ablation?

Surveillance protocol after successful endoscopic eradication



Omar *et al* Gastrointest Endosc 2019

What management are you planning for this HG dysplasia at 30cm?

Which is better? EMR / ESD

EMR vs ESD for early oesophageal neoplasia

Cure rate 95-97%, 5 yr survival 98%

Pros and cons

Recurrence rates: EMR – yet not statistically significant

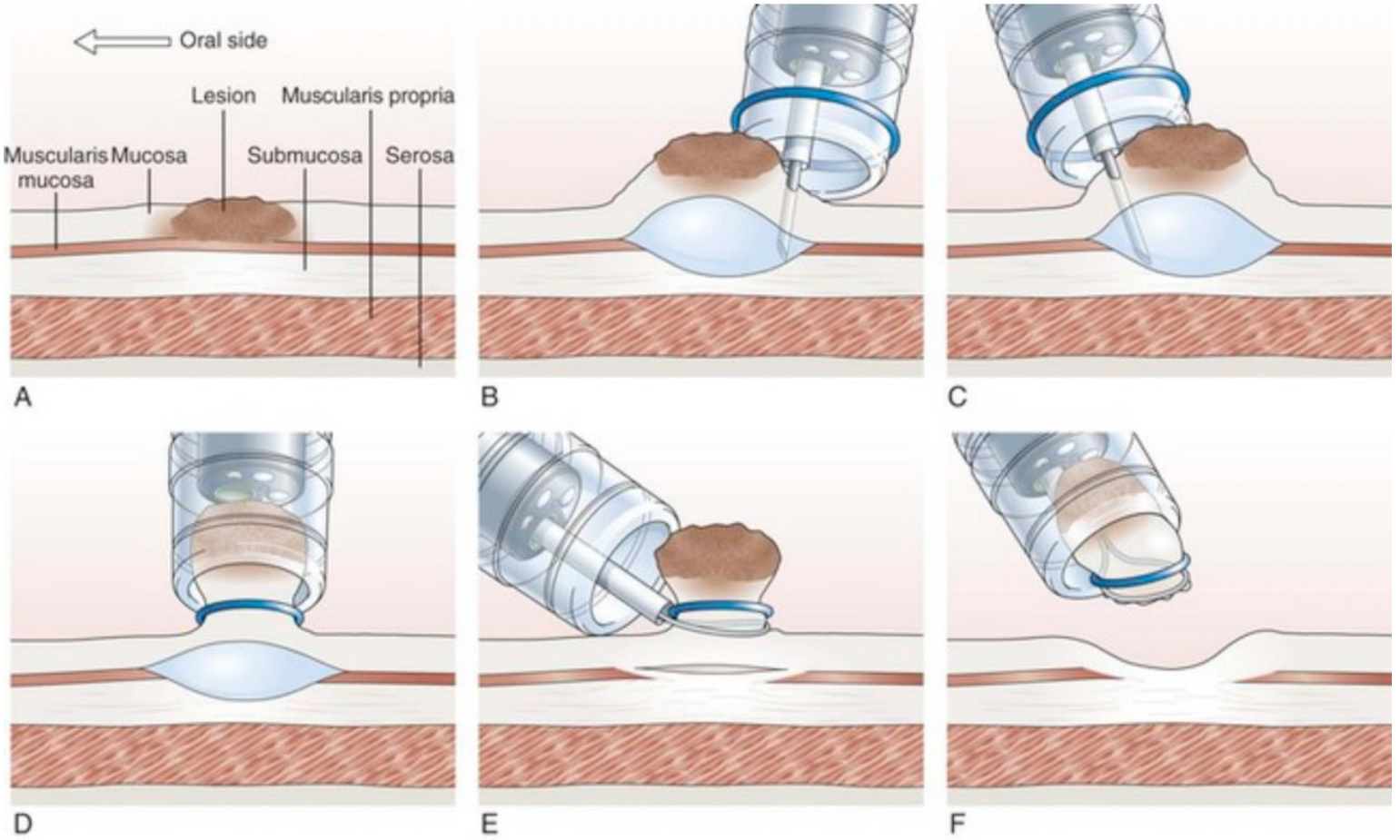
Similar long term outcomes, but favours ESD at 5 yrs

Perforation rate, delayed bleeding, stricture rate: similar (depends on degree of circumferential resection)

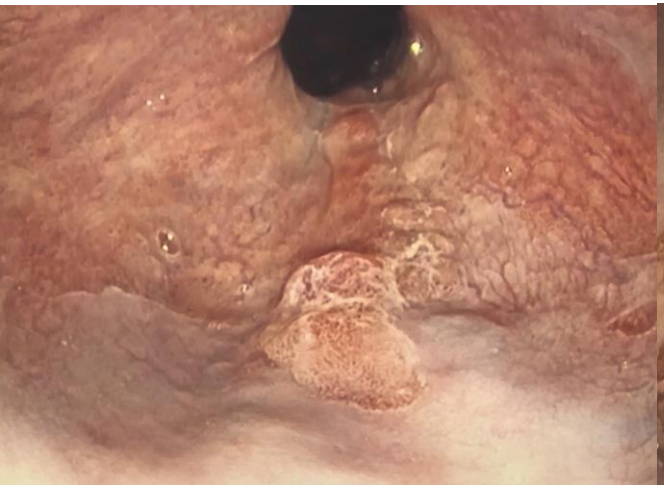
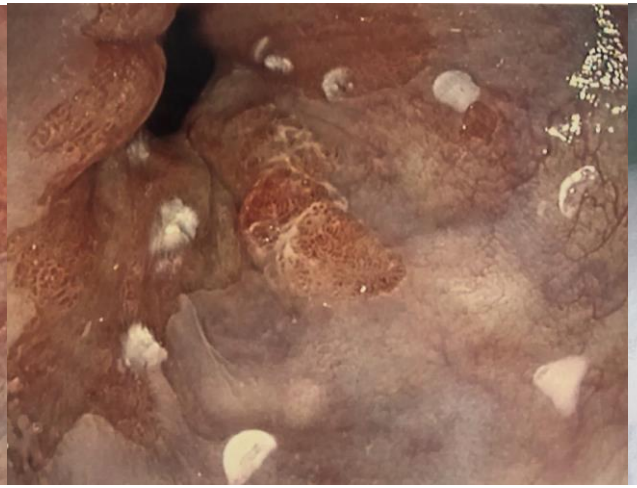
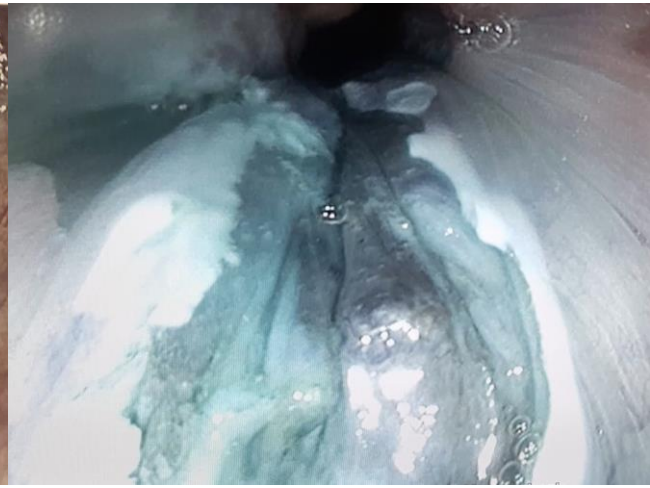
Big difference is time and skill

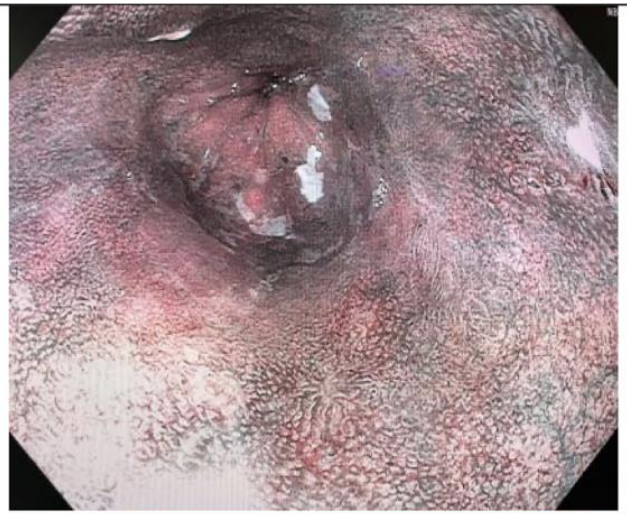
Komeda *et al* Endosc Open Int 2014
Terheggen *et al* Gut 2017
Pietro *et al* Gastroenterology 2018

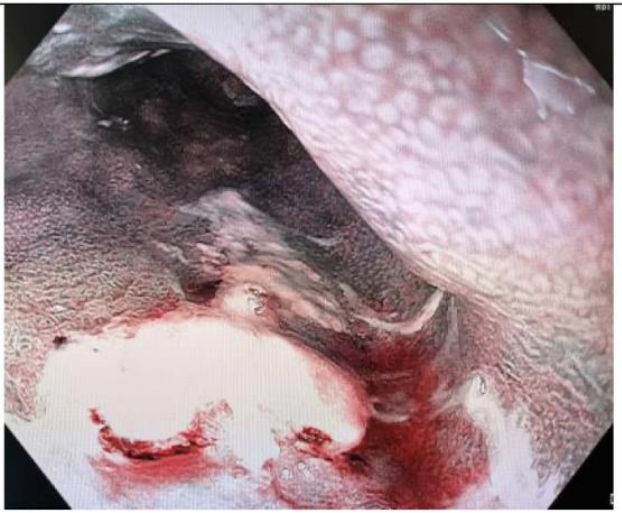
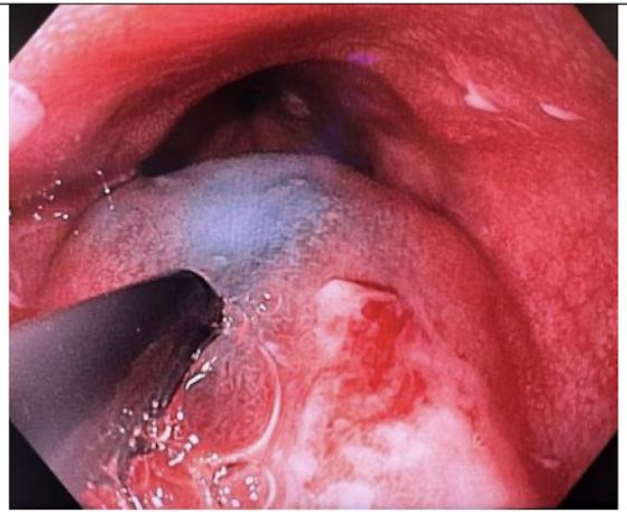
Technique: EMR

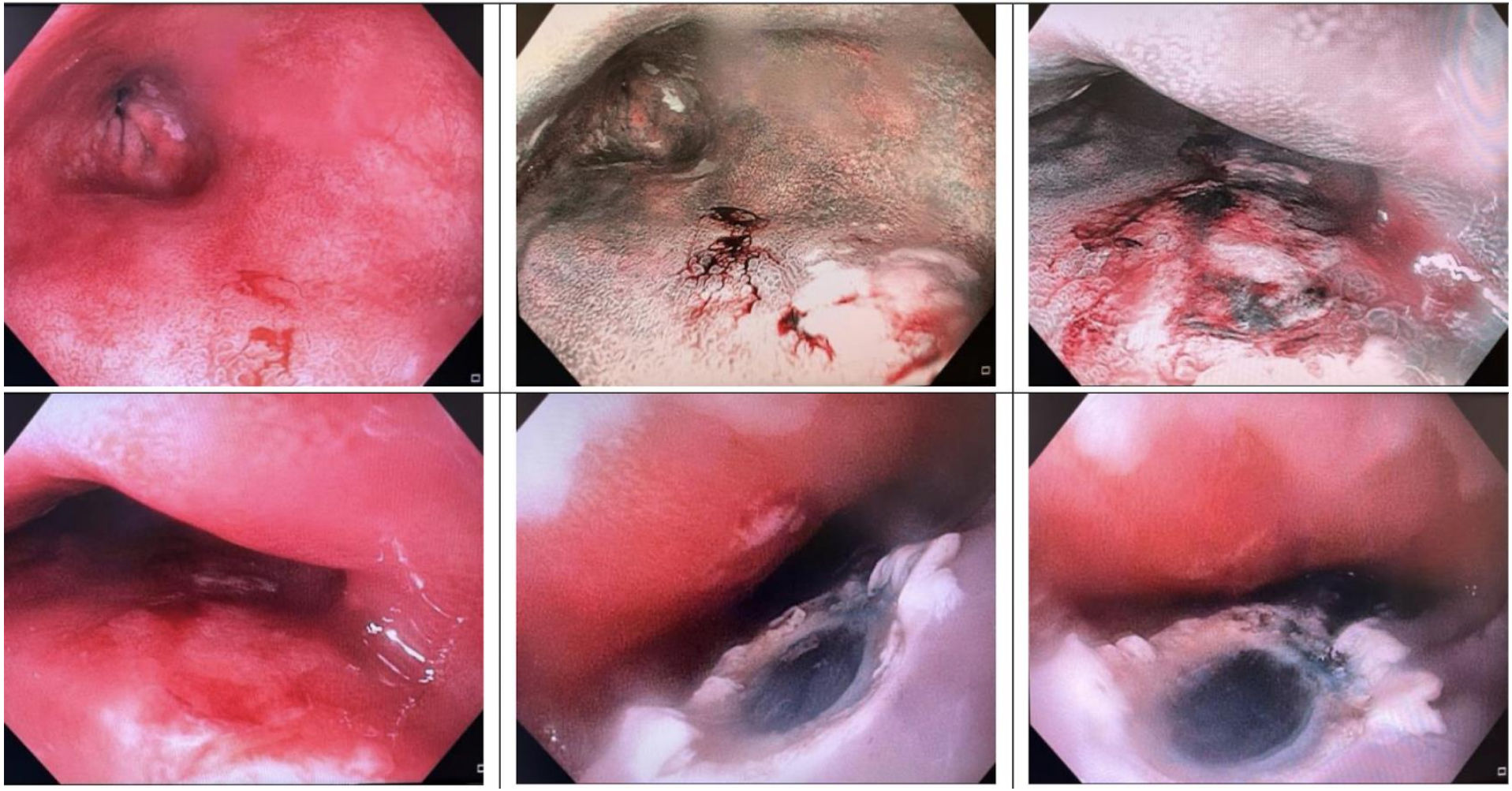


Technique: ESD

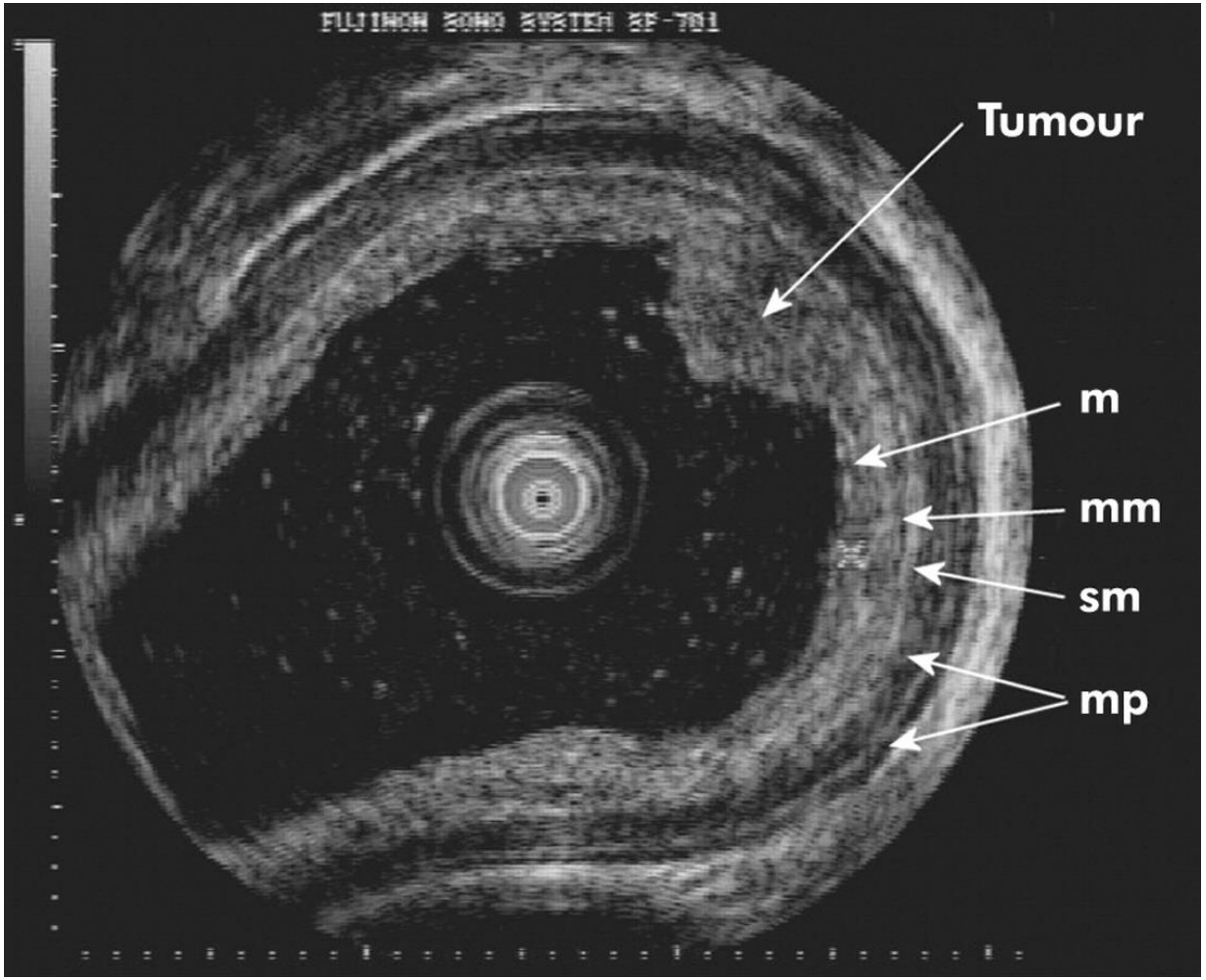



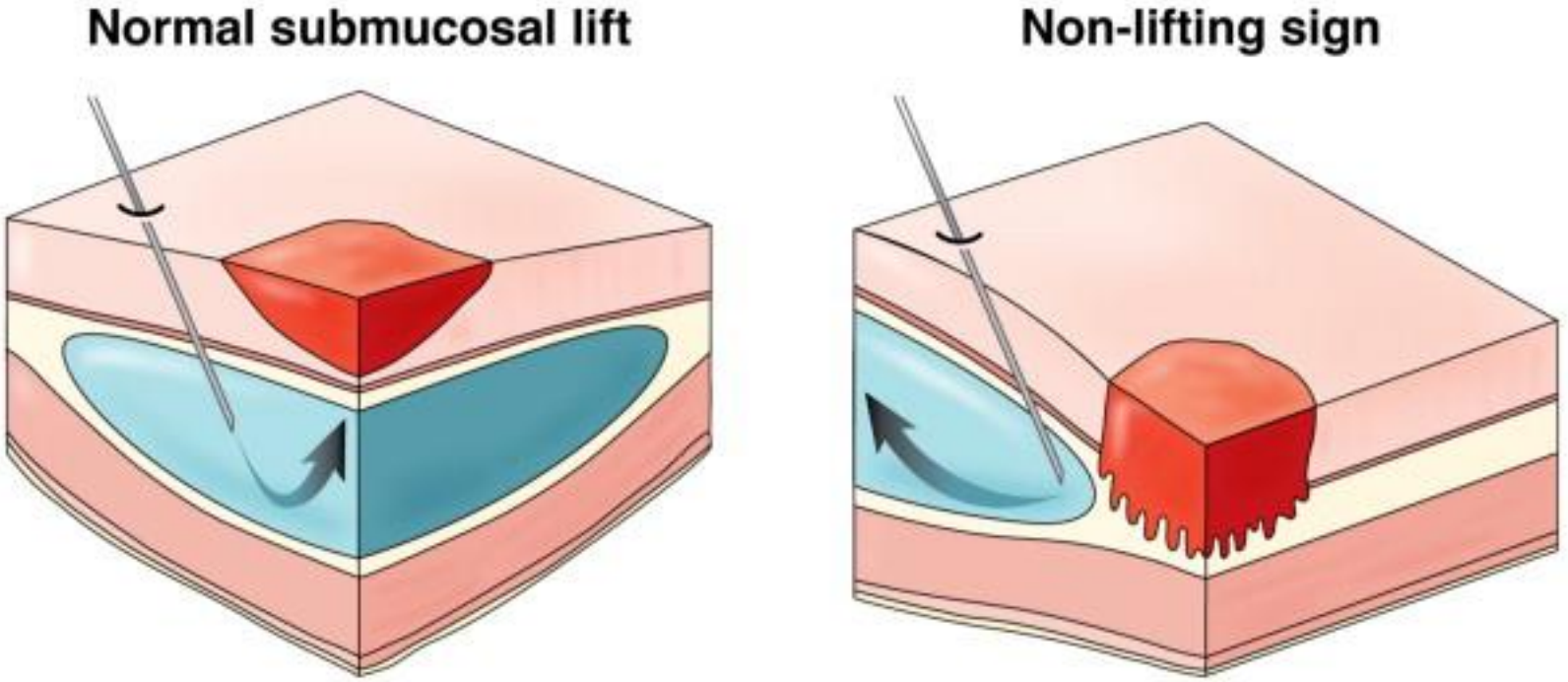



EUS in early oesophageal malignancies?

Judging depth of invasion: EUS



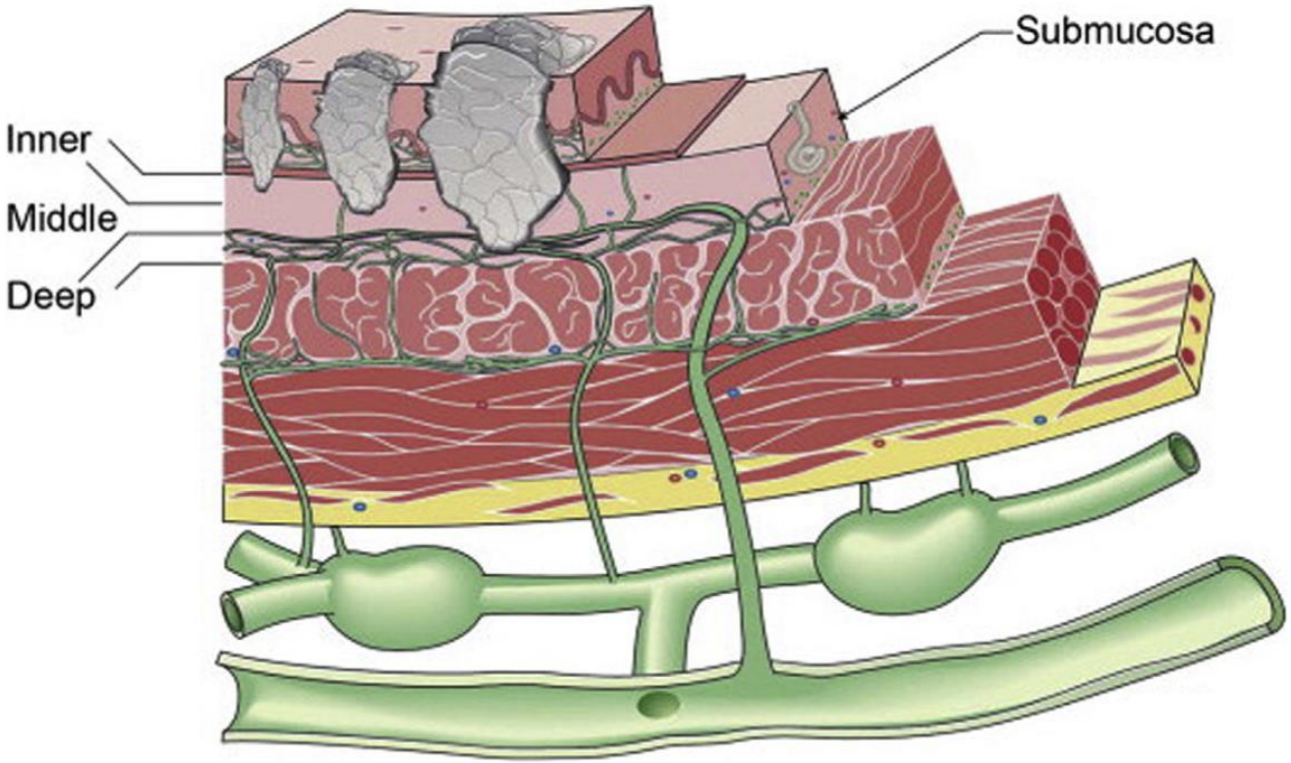
Yuu *et al* WGJ 2017



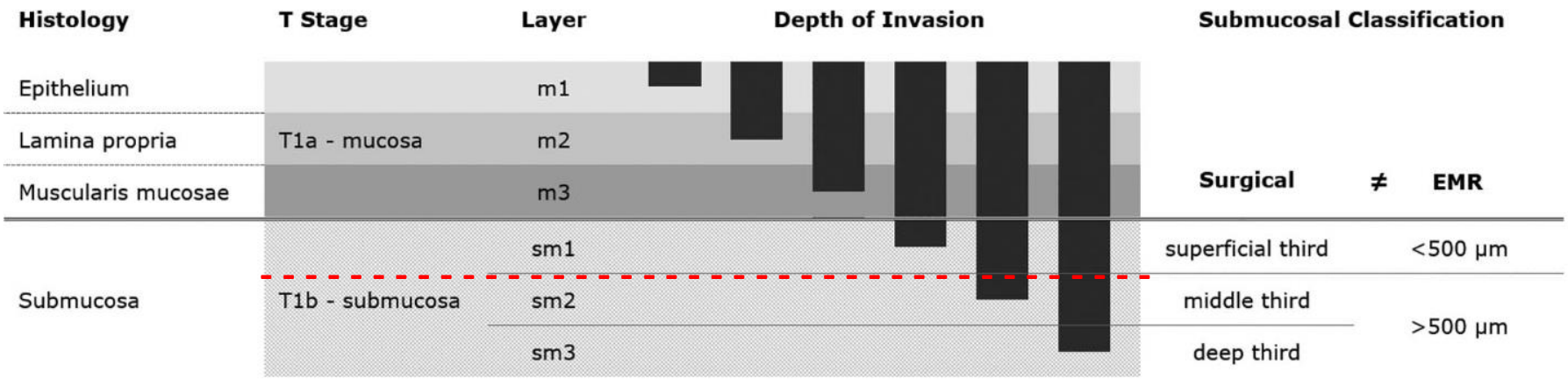
Chandrasekhara *et al* 2011

Lift and EUS both looking at depth – what about depth is so important for endoscopic resections?

Endoscopic resection depth vs outcomes



Raja *et al* J Thor and Cardiovasc Surg 2011
Manner *et al* Surg Endosc 2015
Scholvinck *et al* Surg Endosc 2016



Endoscopic resection for early (pT1) oesophageal adenocarcinoma can be justified if the rate of coexisting lymph node metastasis is less than the mortality rate from the oesophagectomy.

Saunders *et al* Dis of the Esophagus 2020

Factors associated with a higher recurrence post-endoscopic excision:

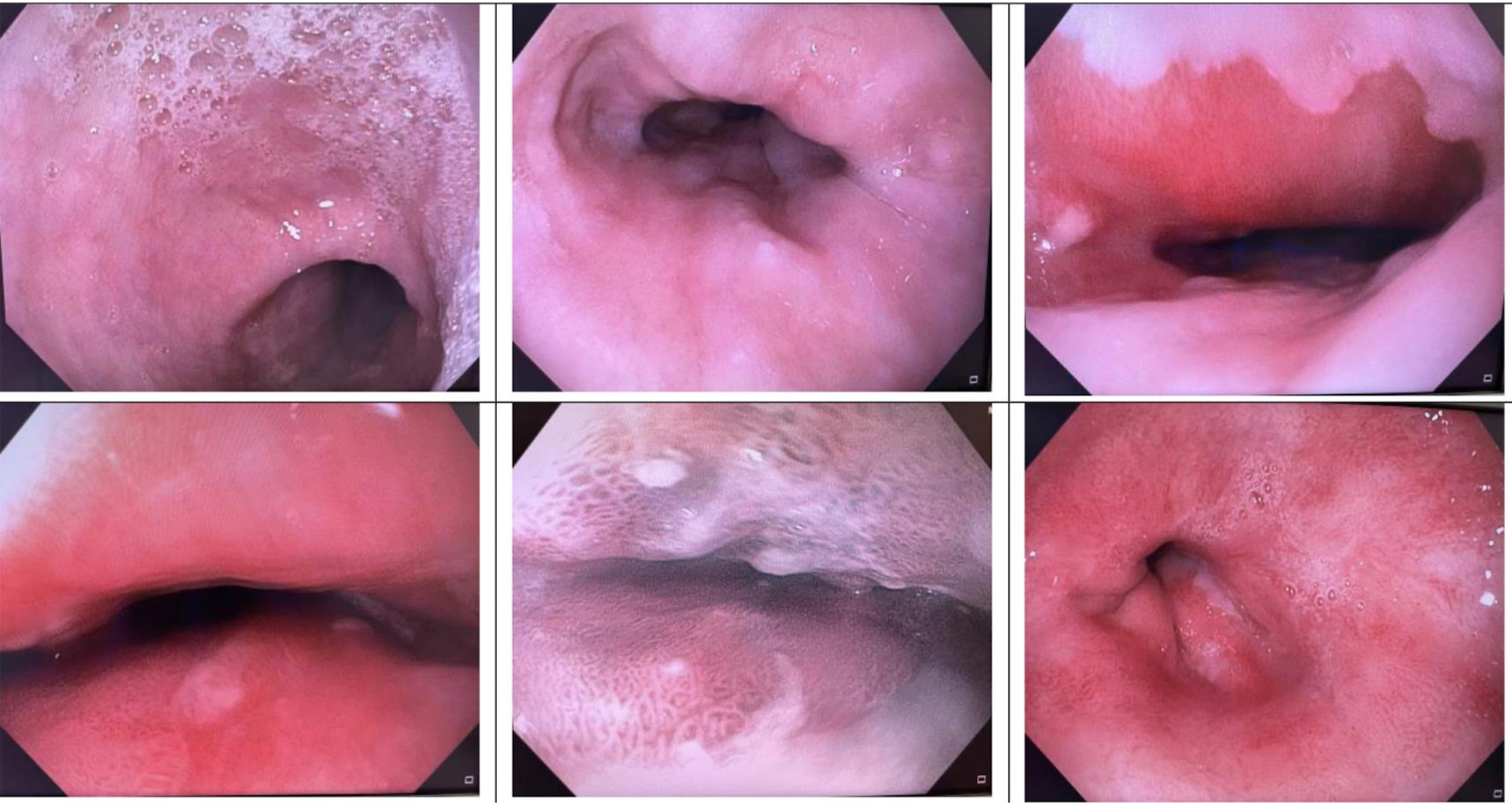
Factors associated with a higher recurrence post-endoscopic excision:

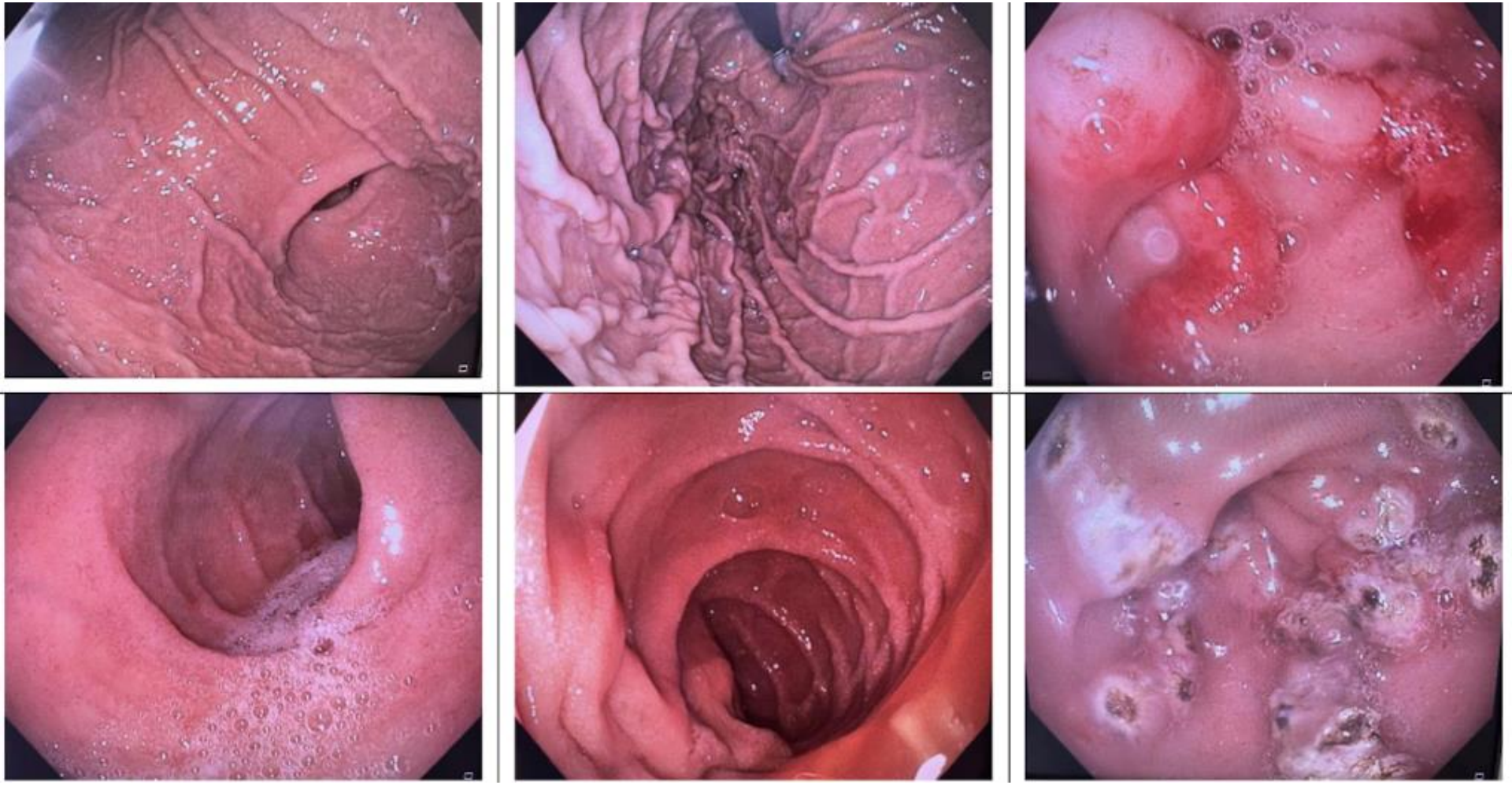
Factors associated with increased failures in patients undergoing endoscopic tumor therapy

1. Lymphovascular invasion
2. T1b-submucosal involvement
3. Squamous cell carcinoma
4. Deep lesions
5. Piecemeal resection
6. Lesions >2 cm

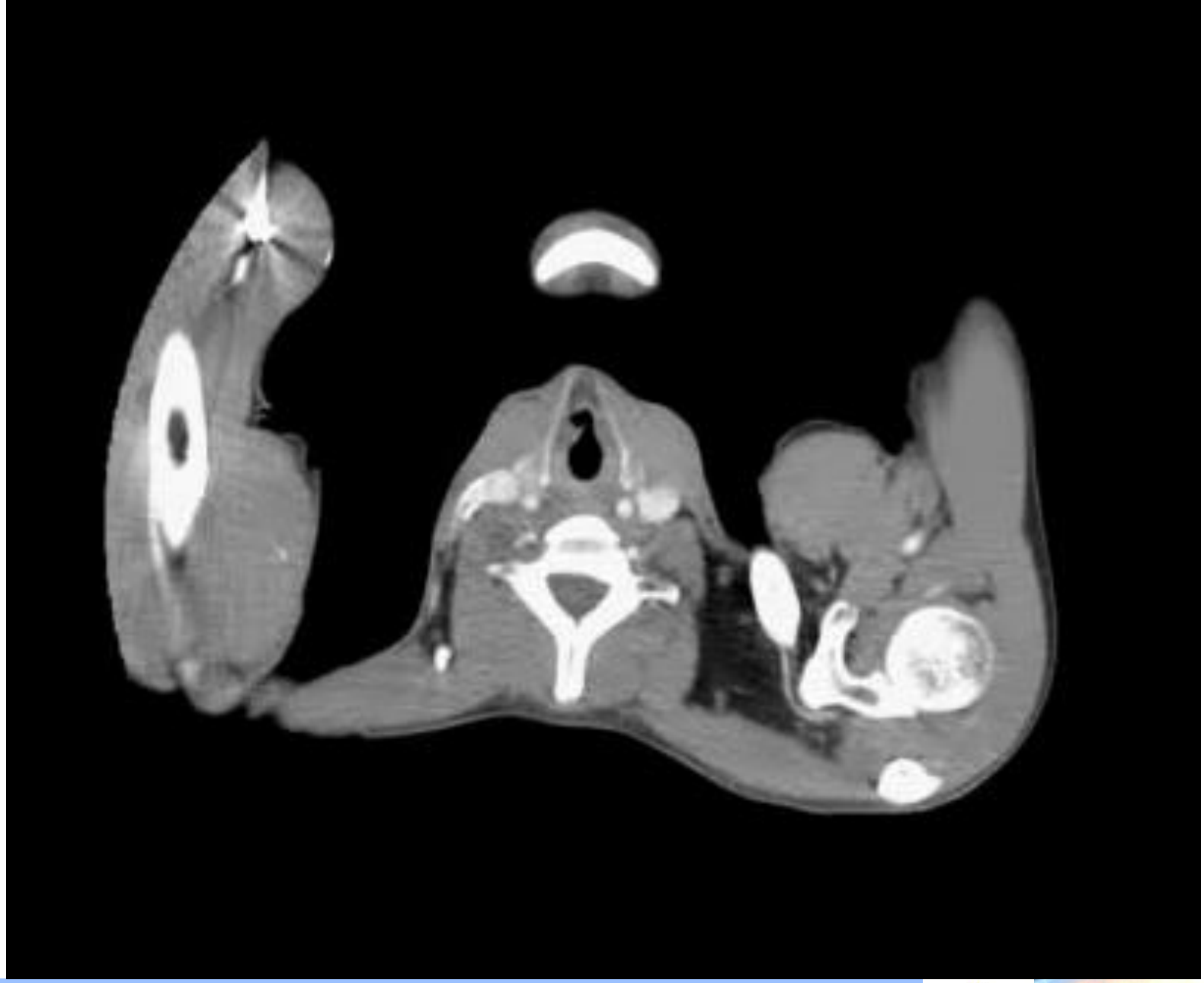
Ekeke *et al* Surg Clin N Am 2021

Mr S has a massive UGIB one day post-EMR when he is back home in George.





So now what is your plan with this oesophagus?



Surgery (9 – 28%) as an adjunct to endoscopy:

High risk of nodal mets

Sub-mucosal invasion in adenoCa is an indication for definitive surgery

But good prognosis T1b EAC could be treated endoscopically especially in pt with high surgical risk

For early SCC, surgery may be preferred in young and fit, and also for T1a m3 and T1b sm1 lesions

Surgery offered to operable pts with lesions that cannot be lifted or dissected safely

Rescue therapy for recurrences or metachronous neoplasia when all endoscopic therapies have been exhausted

Moss *et al* Am J Gastroenteol 2010
Yang *et al* Gastrointest Endosc 2016
Chevaux *et al* Endoscopy 2015
Scholvinck *et al* Surg Endosc 2016