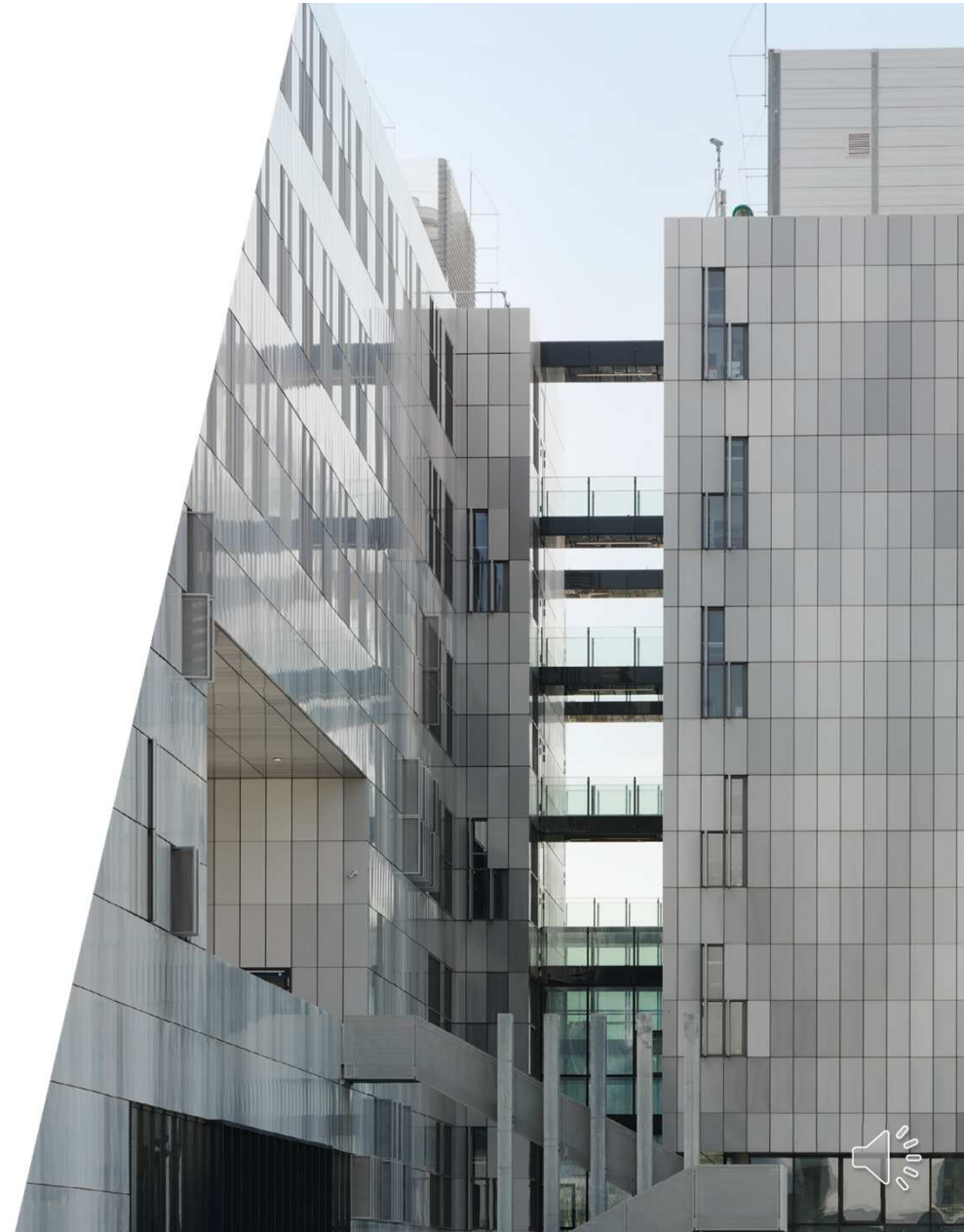




UPPER GI TRACT CASE #2

Cord Langner, MD
Diagnostic & Research Institute of Pathology
Medical University of Graz / Austria



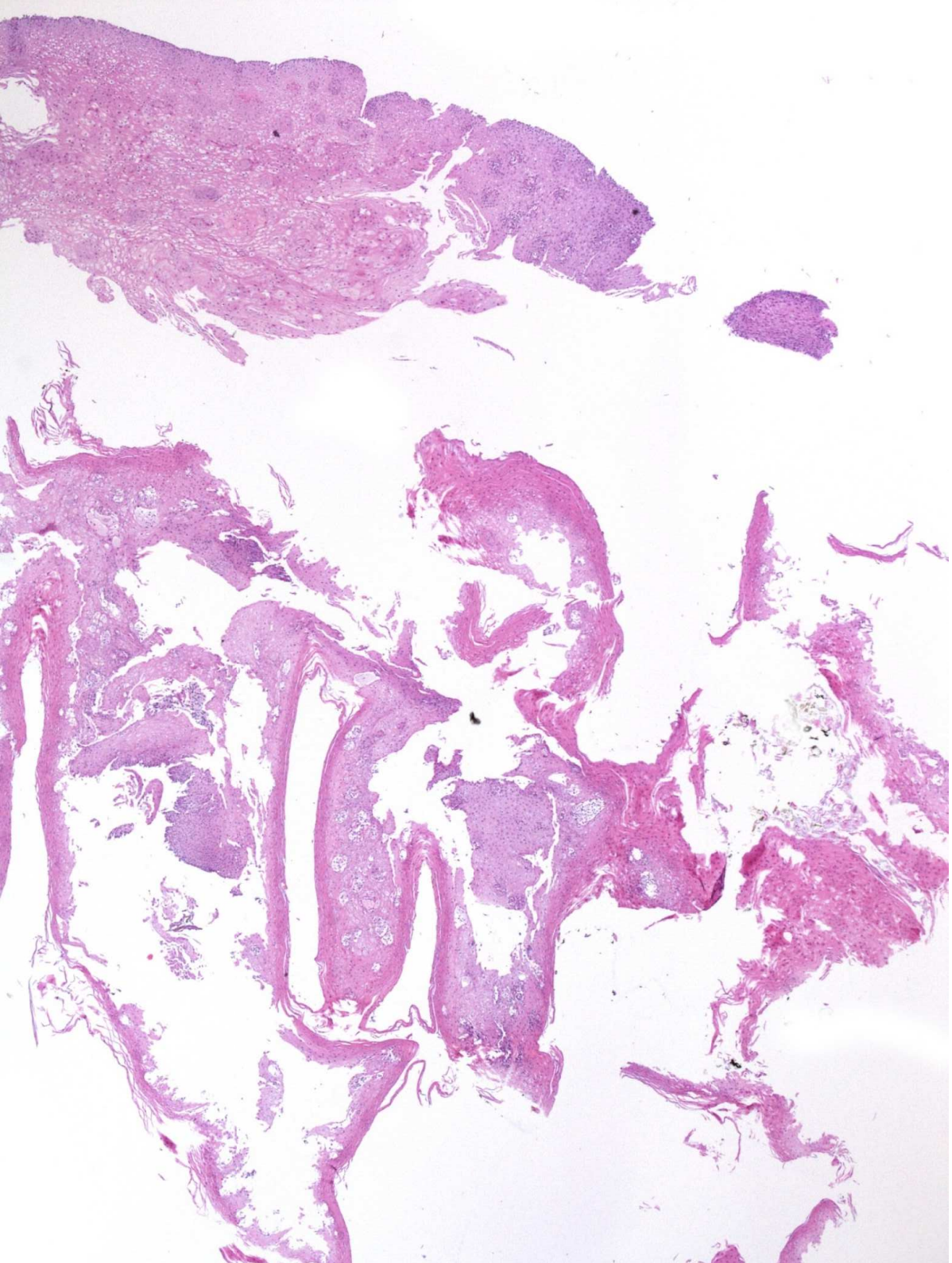
Background story

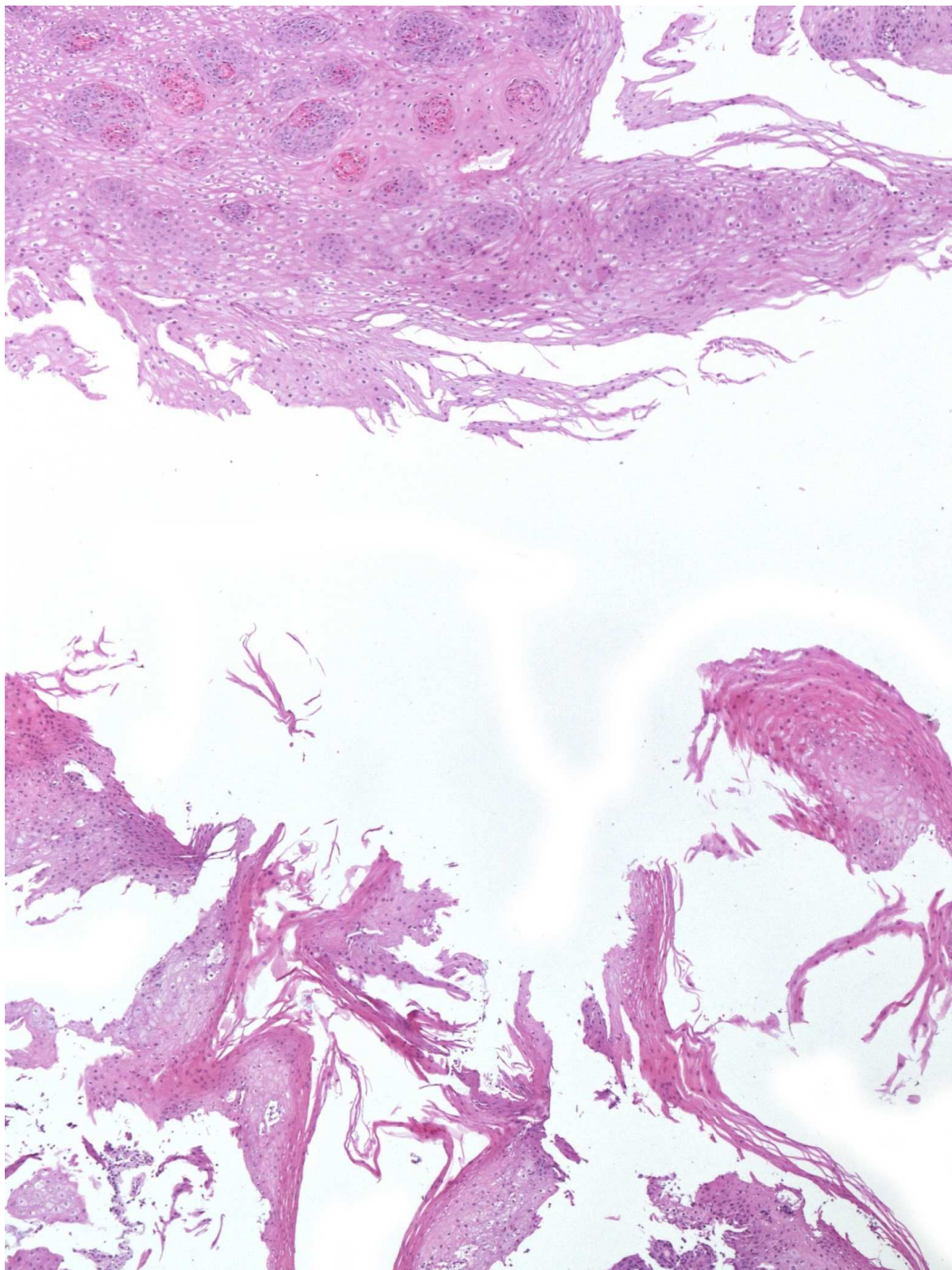
- ▶ 62-year-old female
- ▶ Clinical symptoms: depression and anxiety disorder, alcohol abuse, dysphagia, mild reflux symptoms
- ▶ Endoscopy: pseudomembranes within the middle and distal portion of the oesophagus
- ▶ Pathology request form:
 - ▶ Candida?
- ▶ Biopsies from the distal part of the oesophagus

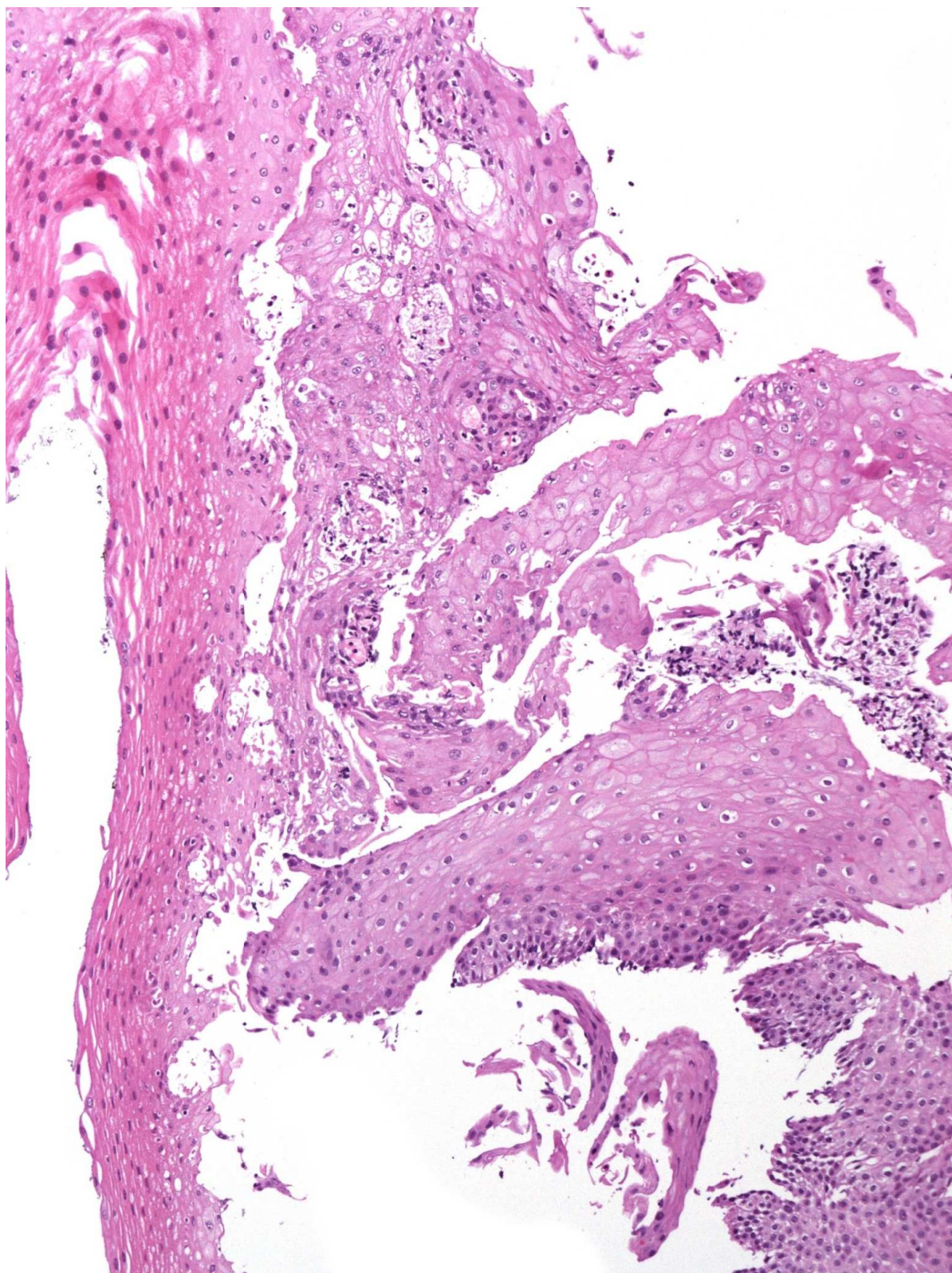


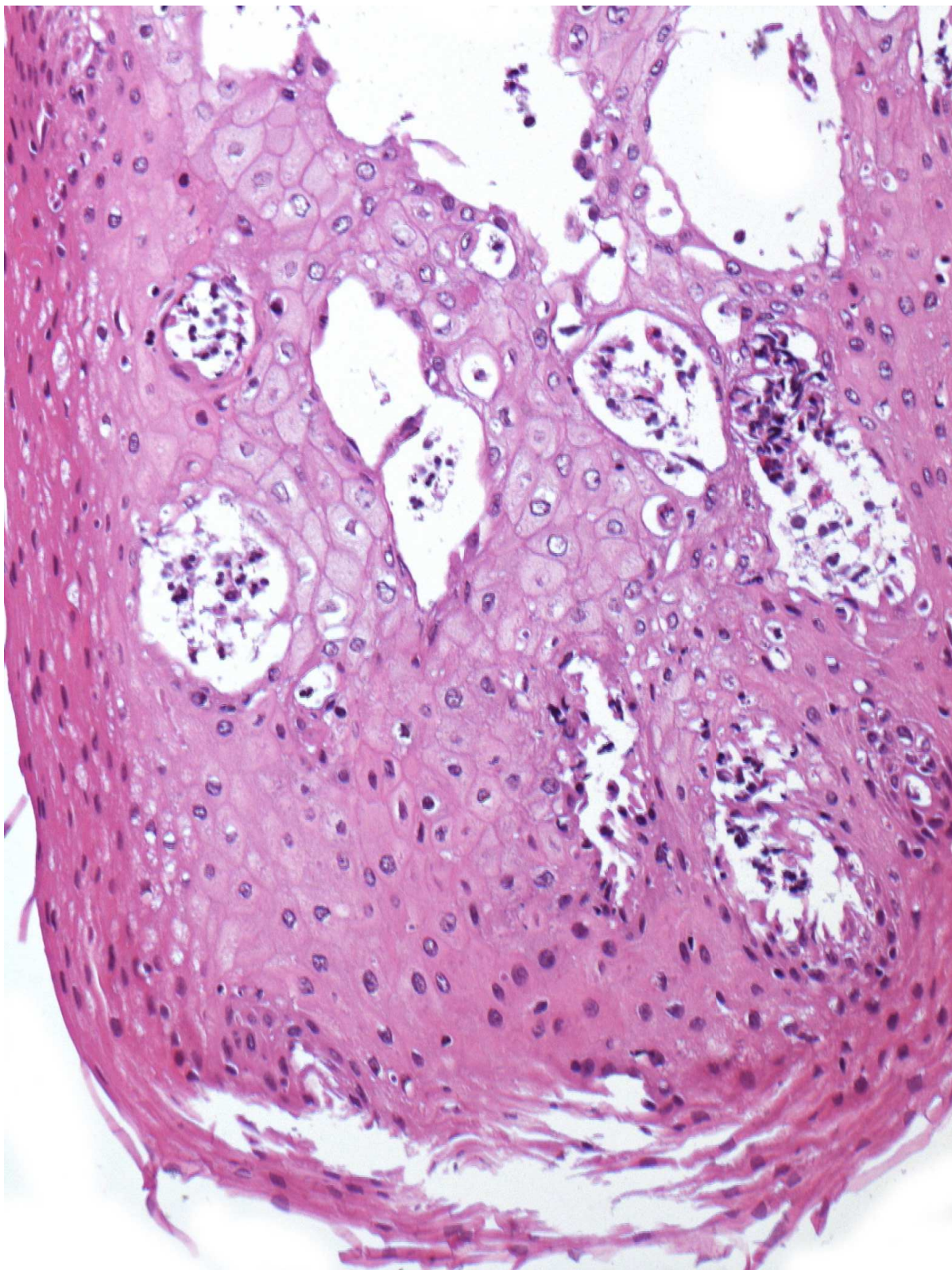


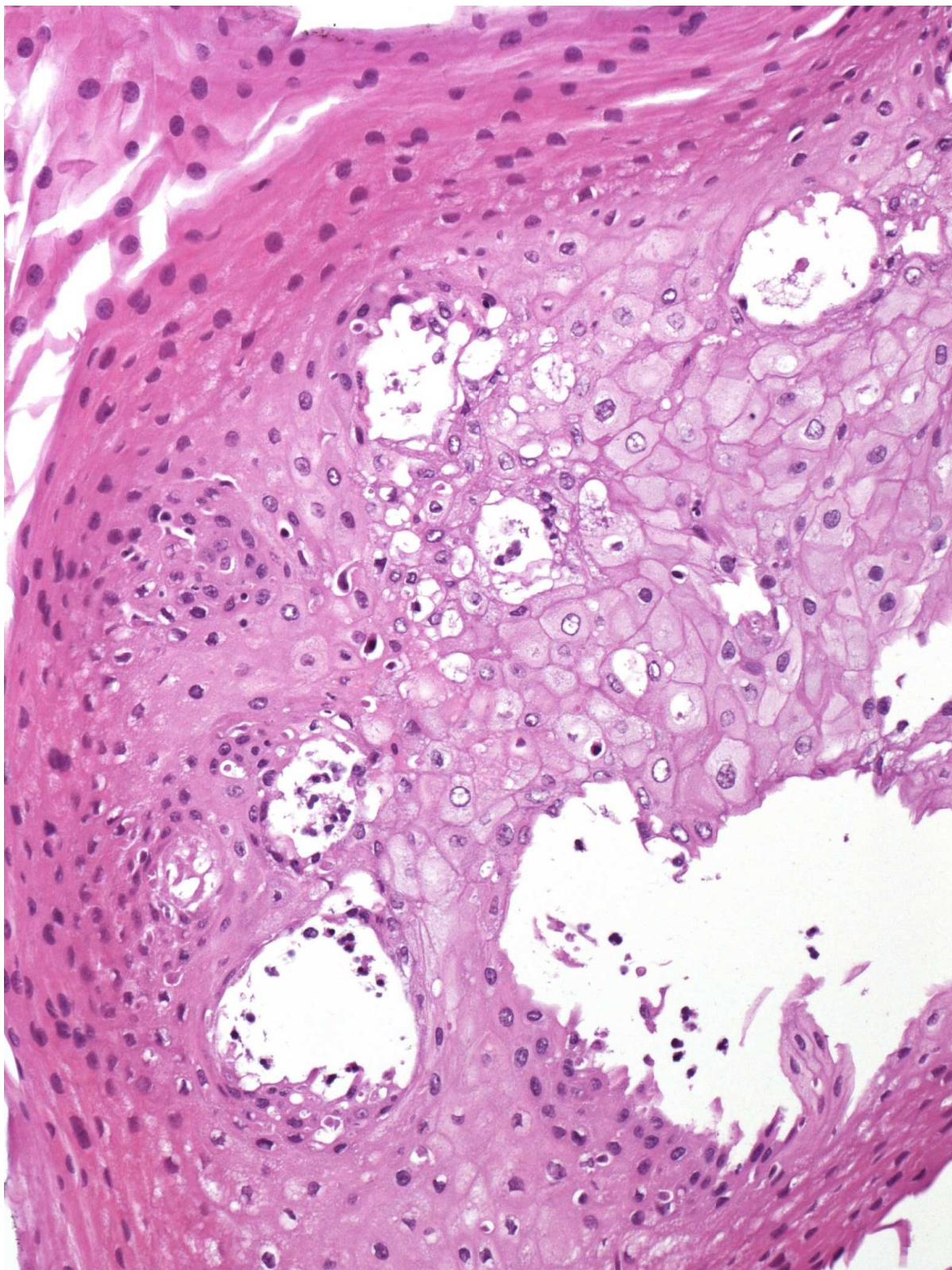












What is your diagnosis?

- ▶ Candida infection
- ▶ Reflux oesophagitis
- ▶ Epidermoid metaplasia
- ▶ Artefact
- ▶ None of the above

Do we need a special stain?



What is the diagnosis I made?

- ▶ Sloughing esophagitis (oesophagitis dissecans superficialis)



Sloughing esophagitis is associated with chronic debilitation and medications that injure the esophageal mucosa

Julianne K Purdy, Henry D Appelman and Barbara J McKenna

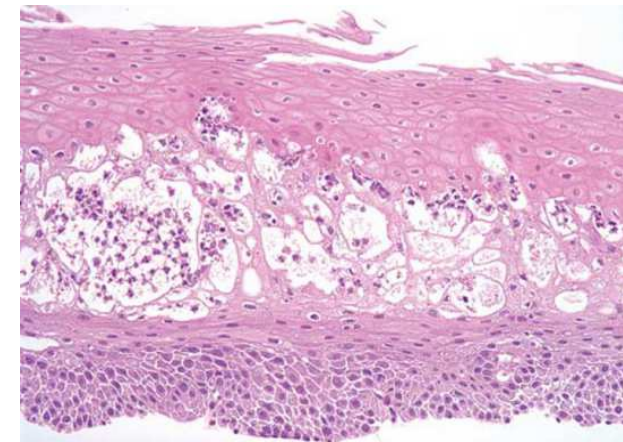
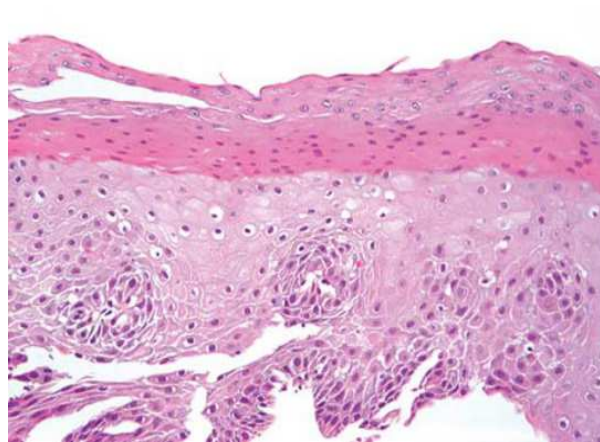
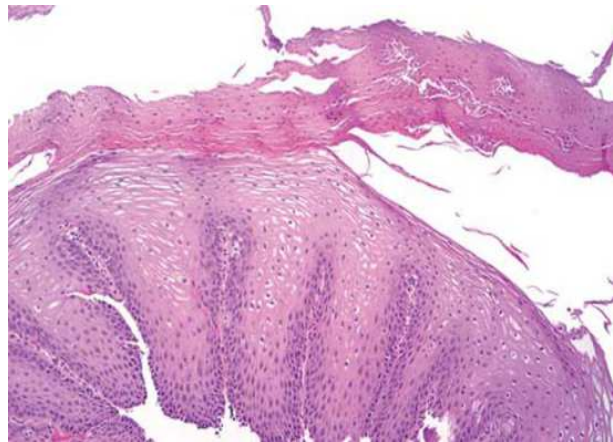


Table 1 Sloughing esophagitis patients and controls: clinical data

	SE patients (N = 31)	Controls (N = 34)	P-value
Mean/median age	58.5/56	42.7/43.5	0.0004
Sex	F = 17 (55%); M = 14 (45%)	F = 19 (56%); M = 15 (44%)	
<i>Presenting symptoms</i>			
Esophageal symptoms (total)	14 = 45%	20 = 59%	0.3249
Globus sensation or dysphagia	10 = 32%	11 = 32%	1.000
Odynophagia	3 = 10%	0 = 0%	0.1029
Non-cardiac chest pain	4 = 13%	2 = 6%	0.41330
Heartburn	5 = 16%	9 = 26%	0.3749
Nausea	10 = 32%	8 = 24%	0.5800
Vomiting (total)	7 = 23%	10 = 29%	0.5825
Hematemesis	4 = 13%	7 = 21%	0.5158
Abdominal pain	7 = 23%	16 = 47%	0.0680
Suspicion of GI bleeding (melena, guaiac+, anemia, hematemesis)	10 = 32%	4 = 12%	0.0692

Significant differences are in bold.

Table 2 Endoscopic findings: location of plaques/membranes

Plaque location known	26 = 84%
Proximal	2 = 8%
Mid	5 = 19%
Distal	11 = 42%
Mid and distal	2 = 8%
Entire esophagus	6 = 23%
Plaque location unknown	5 = 16%



Sloughing esophagitis is associated with chronic debilitation and medications that injure the esophageal mucosa

Julianne K Purdy, Henry D Appelman and Barbara J McKenna



Table 4 Medical history, non-gastrointestinal diseases

<i>Specific diseases</i>	<i>SE patients (N = 31)</i>	<i>Controls (N = 34)</i>	<i>P-value</i>	<i>Controls > 40 (N = 21)</i>	<i>P-value</i>
Coronary artery disease, including angina and myocardial infarct	11 = 35%	4 = 12%	0.0152	4 = 19%	0.2304
Other atherosclerotic disease (TIAs, CVAs, PVOD)	5 = 16%	1 = 3%	0.0951	1 = 5%	1.000
Total patients with atherosclerotic disease	12 = 39%	5 = 15%	0.0466	5 = 24%	0.0578
Congestive heart failure, valvular disease, arrhythmias	12 = 39%	3 = 9%	0.0070	3 = 14%	0.0088
Hypertension	19 = 61%	10 = 29%	0.0131	9 = 43%	0.2594
Chronic renal disease/insufficiency	5 = 16%	0 = 0%	0.0206	0 = 0%	0.0001

Significant differences are in bold.

Table 5 Medications at time of biopsy

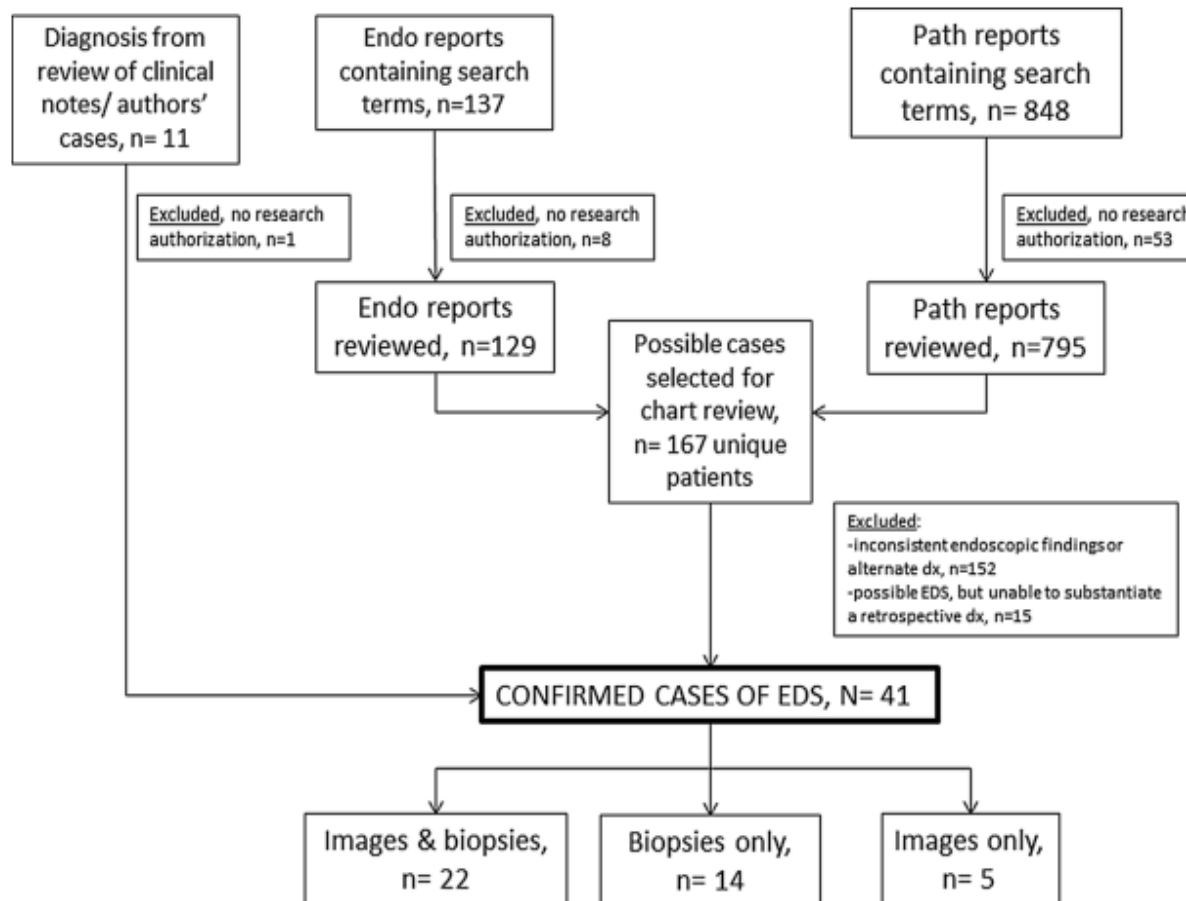
<i>Specific medications</i>	<i>SE patients (N = 31)</i>	<i>Controls (N = 34)</i>	<i>P-value</i>	<i>Controls > 40 (N = 21)</i>	<i>P-value</i>
CNS depressants	20 = 65%	11 = 32%	0.0132	8 = 38%	0.0898
Antiepileptics	9 = 29%	4 = 12%	0.1214	3 = 14%	0.318
Narcotics	16 = 52%	8 = 24%	0.0400	6 = 29%	0.249
Benzodiazepines	11 = 35%	3 = 9%	0.0144	2 = 10%	0.0503
Skeletal muscle relaxants	2 = 6%	2 = 6%	1.000	2 = 10%	1.000
Medications causing esophageal injury	17 = 55%	6 = 18%	0.0021	4 = 19%	0.0117
Medications causing dry mouth or interfering with swallowing	26 = 84%	16 = 47%	0.0038	12 = 57%	0.0548
On five or more prescription medications	24 = 77%	11 = 32%	0.0019	9 = 43%	0.0184

Significant differences are in bold.



Esophagitis Dissecans Superficialis: Clinical, Endoscopic, and Histologic Features

Phil A. Hart · Ryan C. Romano · Roger K. Moreira ·
Karthik Ravi · Seth Sweetser

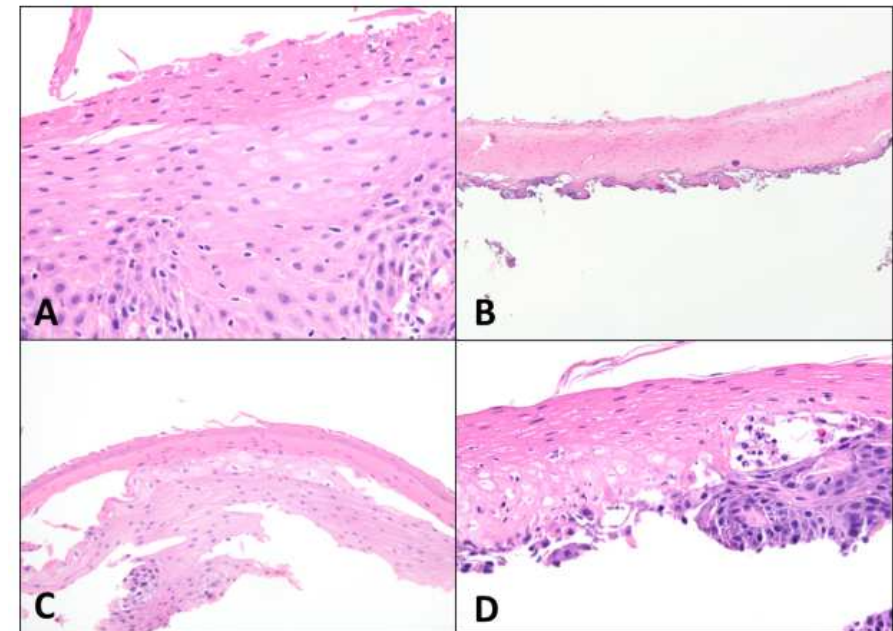


Esophagitis Dissecans Superficialis: Clinical, Endoscopic, and Histologic Features

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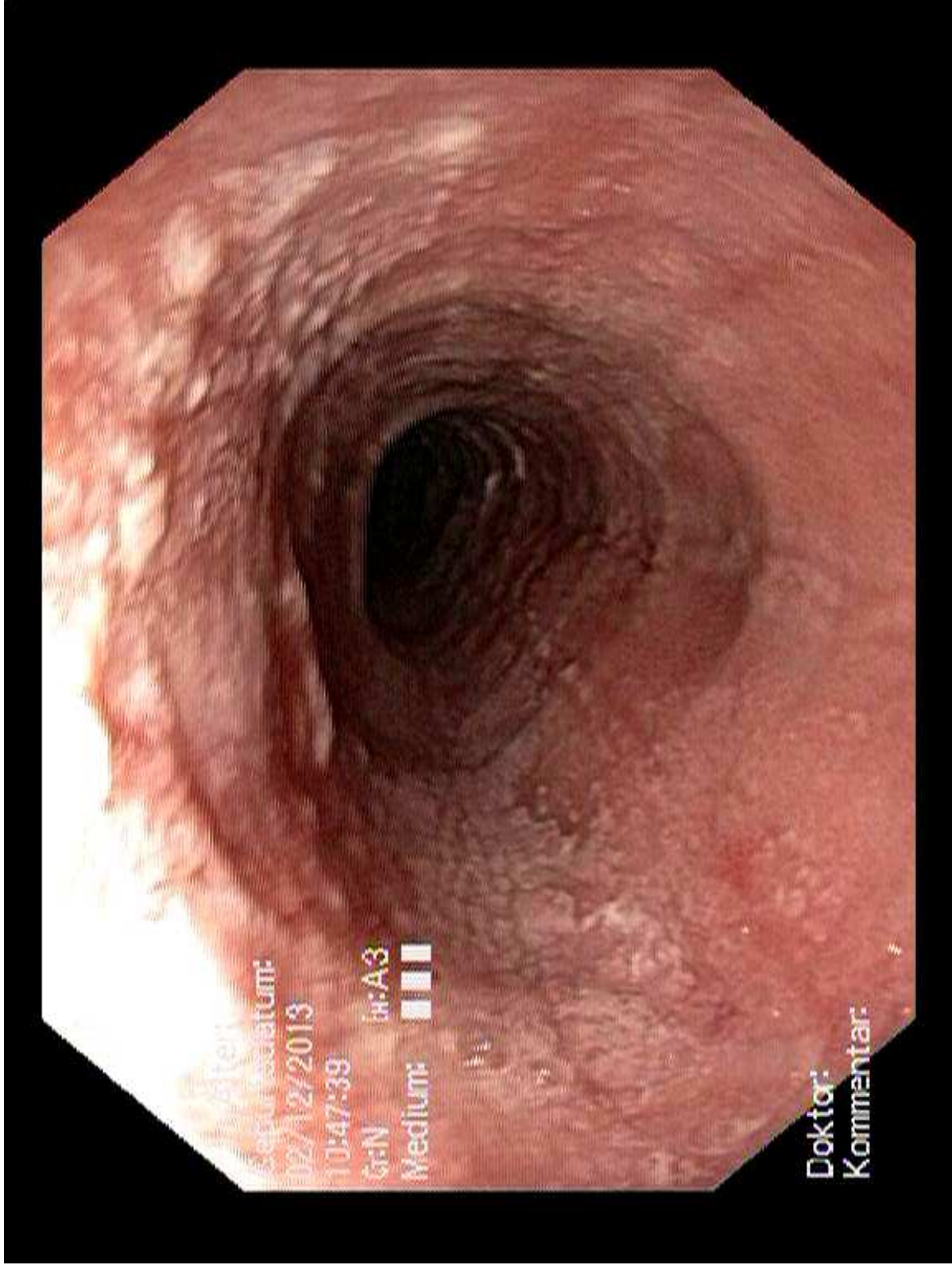
Table 1 Frequency of medication use in subjects with esophagitis dissecans superficialis during the 30 days preceding the index upper endoscopy

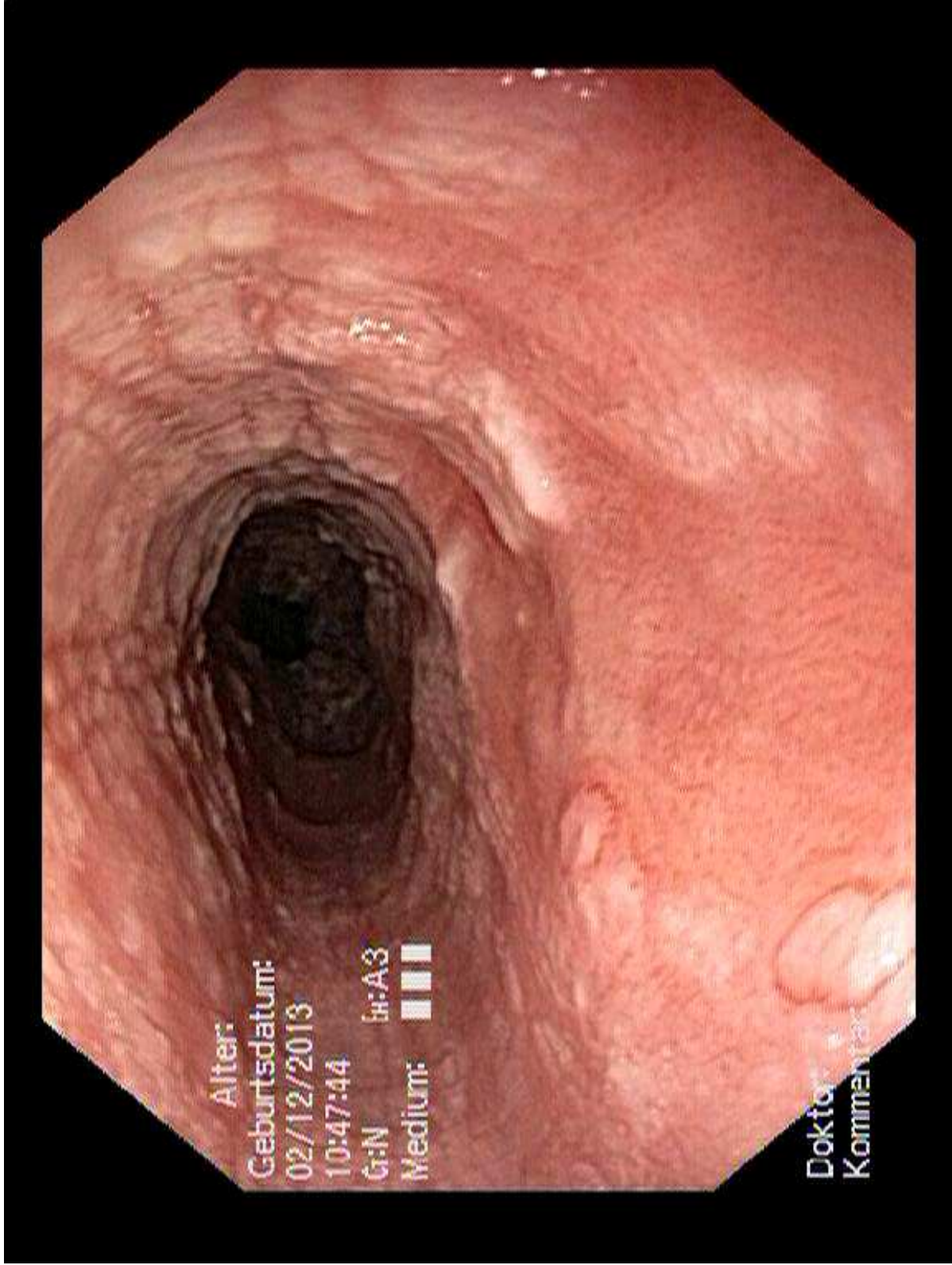
Medications	<i>n</i>	% of total study population (<i>n</i> = 41)		
Psychoactive (any)	30	73.2	Cardiac and antihypertensive (any)	24 58.5
SSRI or SNRI	21	51.2	Beta-blocker	14 34.1
TCA	9	22.0	Diuretic (loop or thiazide)	14 34.1
Gaba-oid (gabapentin or pregabalin)	7	17.1	Calcium channel blocker	12 29.3
Antiepileptic	2	4.9	ACE inhibitor/angiotensinogen receptor blocker	10 24.4
Atypical antipsychotic	2	4.9	Antiarrhythmic	5 12.2
Serotonin 5-HT _{1B} , 1D receptor agonist (rizatriptan)	1	2.4	Nitrate	3 7.3
Other	4	9.8	Other antihypertensive	2 4.9
Vitamin (any)	25	61.0	Analgesic/sedative (any)	17 41.5
Potassium chloride (KCl)	7	17.1	Opioid agonist	9 22.0
Iron (any form)	4	9.8	Benzodiazepine	8 19.5
Vitamin C	4	9.8	Muscle relaxant (baclofen or cyclobenzaprine)	3 7.3
Magnesium	1	2.4	Hypnotic (eszopiclone or zolpidem)	3 7.3
Non-selective NSAIDs, antiplatelets, and anticoagulants (any)	25	61.0	Antihyperlipemic (any)	13 31.7
Aspirin (81 or 325 mg)	15	36.6	Statin	9 22.0
Non-ASA NSAID ^a	7	17.1	Fibrate	3 7.3
Prednisone	4	9.8	Ezetimibe	1 2.4
Clopidogrel	1	2.4	Antimicrobial (any)	9 22.0
Other—heparin, coumadin, dabigatran	6	14.6	Penicillin derivative	4 9.8
Gastric acid protective (any)	24	58.5	Antiviral	2 4.9
Proton pump inhibitor	24	58.5	Fluconazole	1 2.4
H2 blocker	4	9.8	Other antibiotic	4 9.8
Sucralfate	1	2.4	Antidiabetic medication (any)	6 14.6
			Metformin	4 9.8
			Insulin	2 4.9
			Bisphosphonate	2 4.9

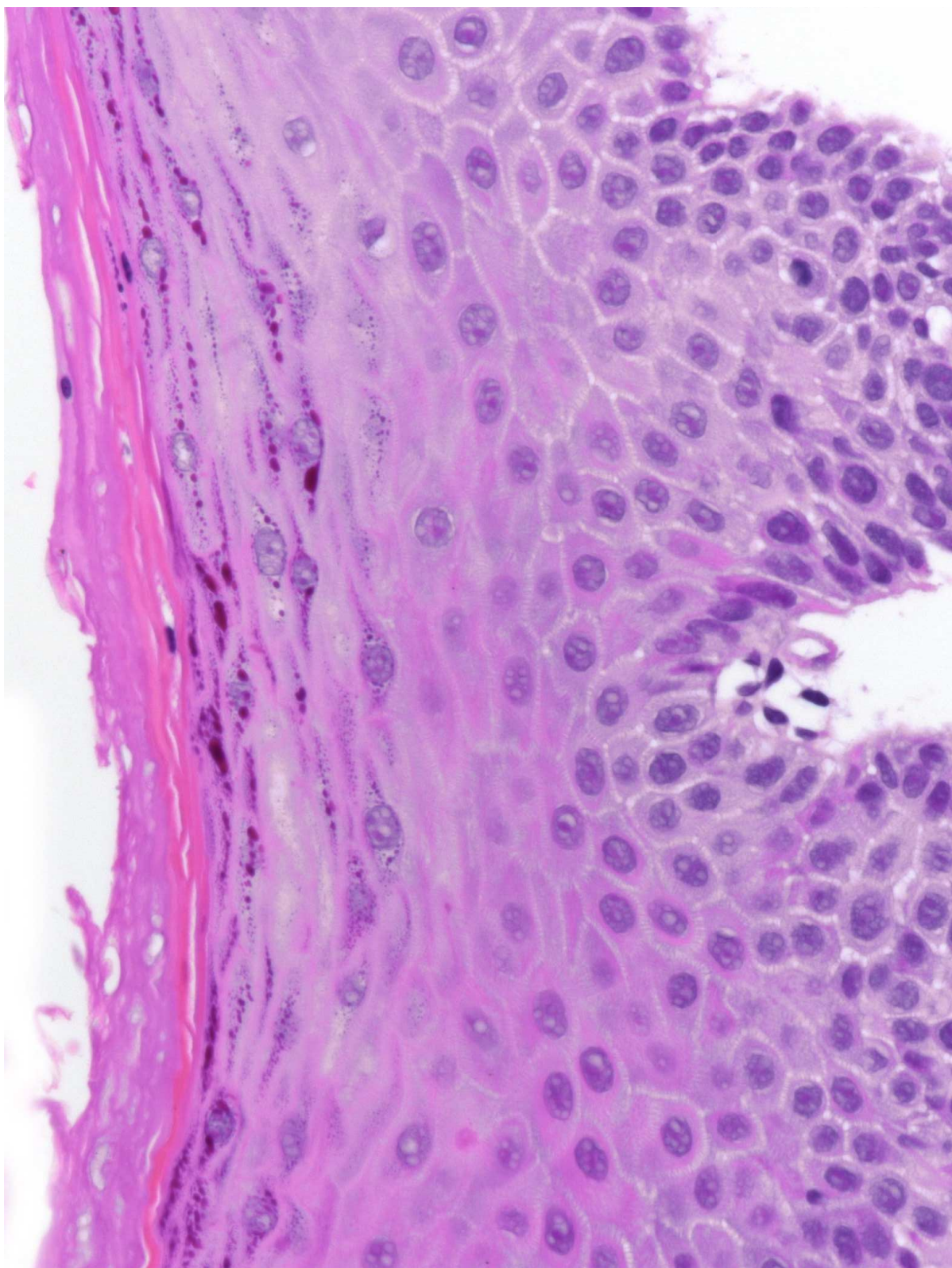


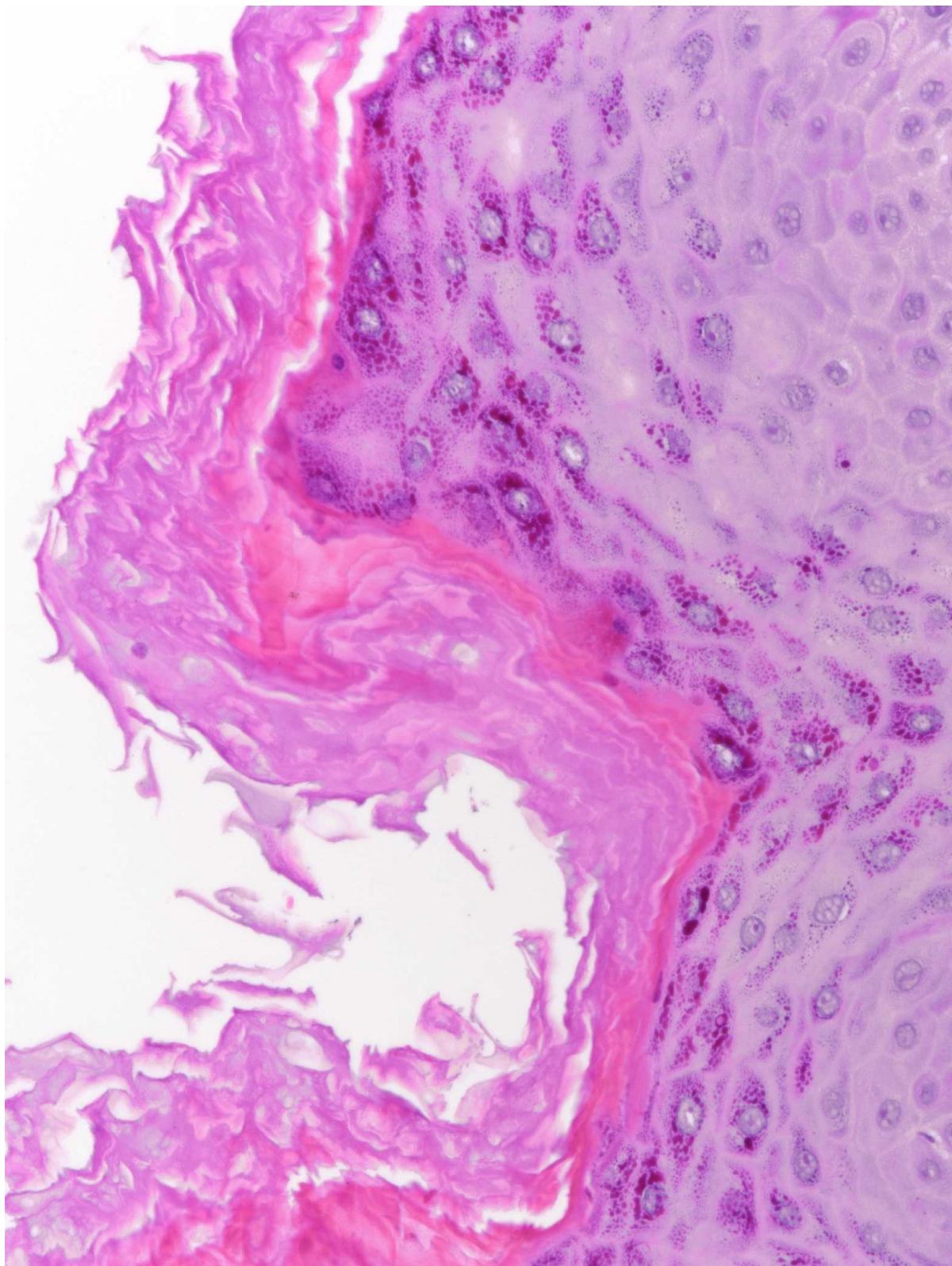
... a few words on epidermoid metaplasia

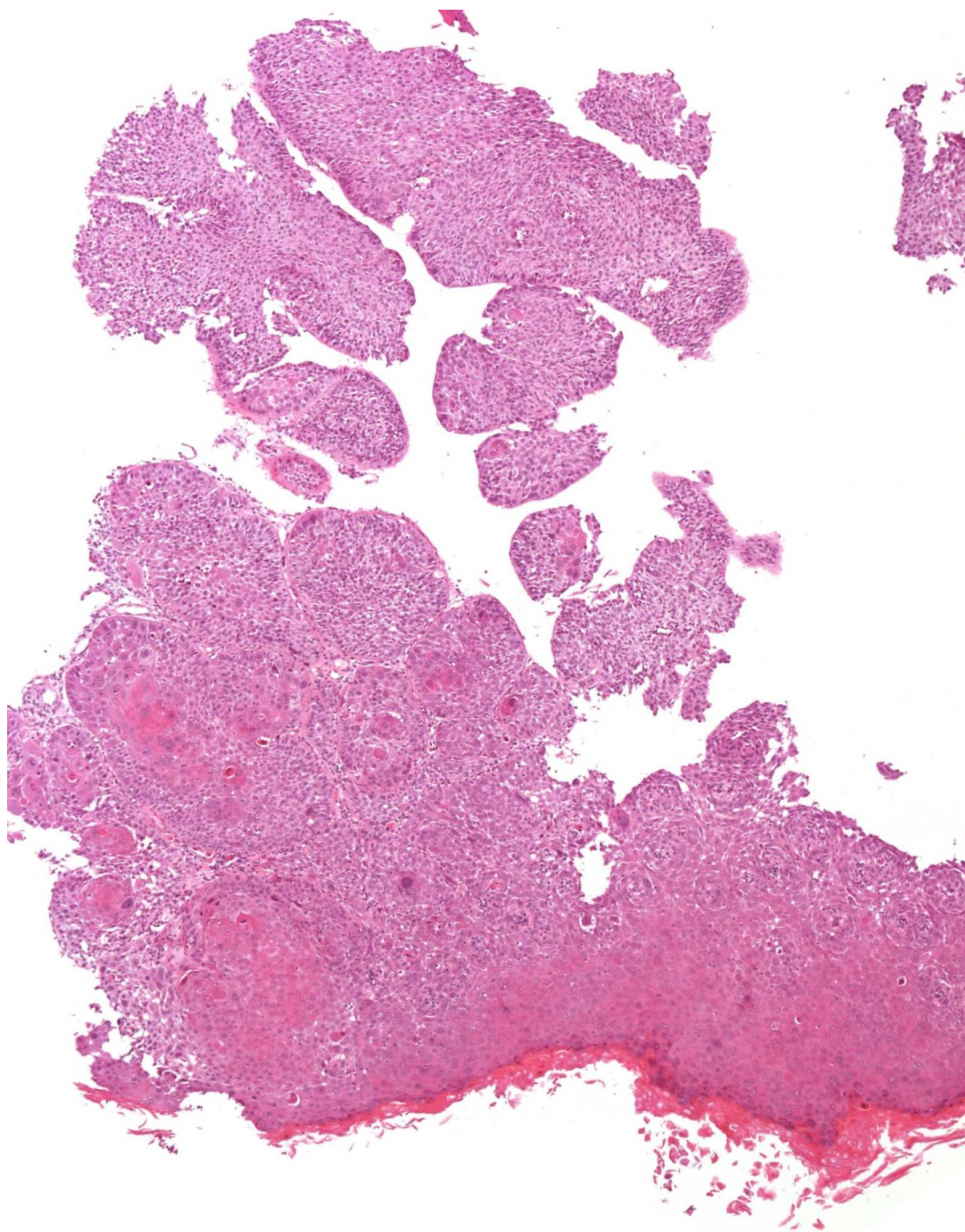


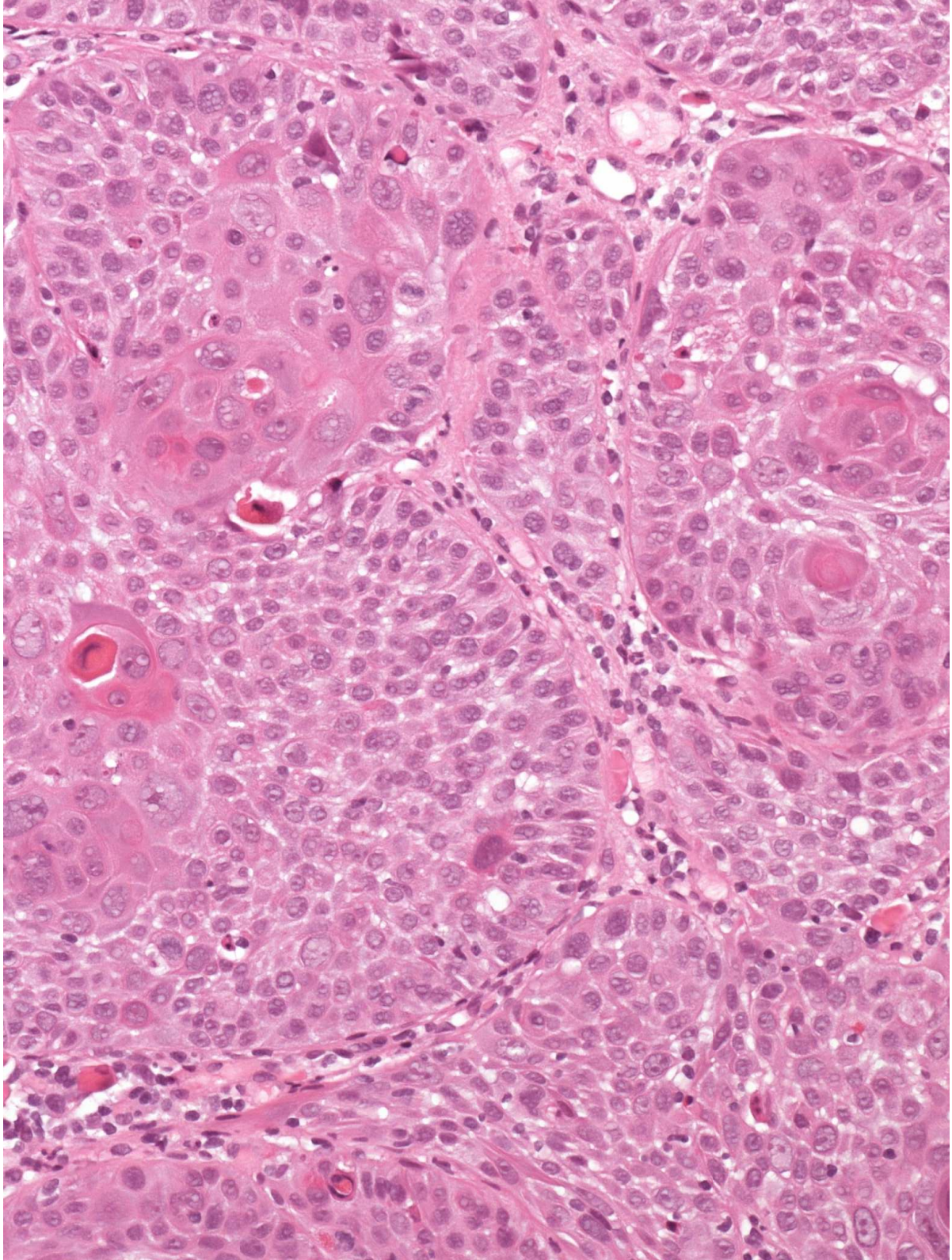






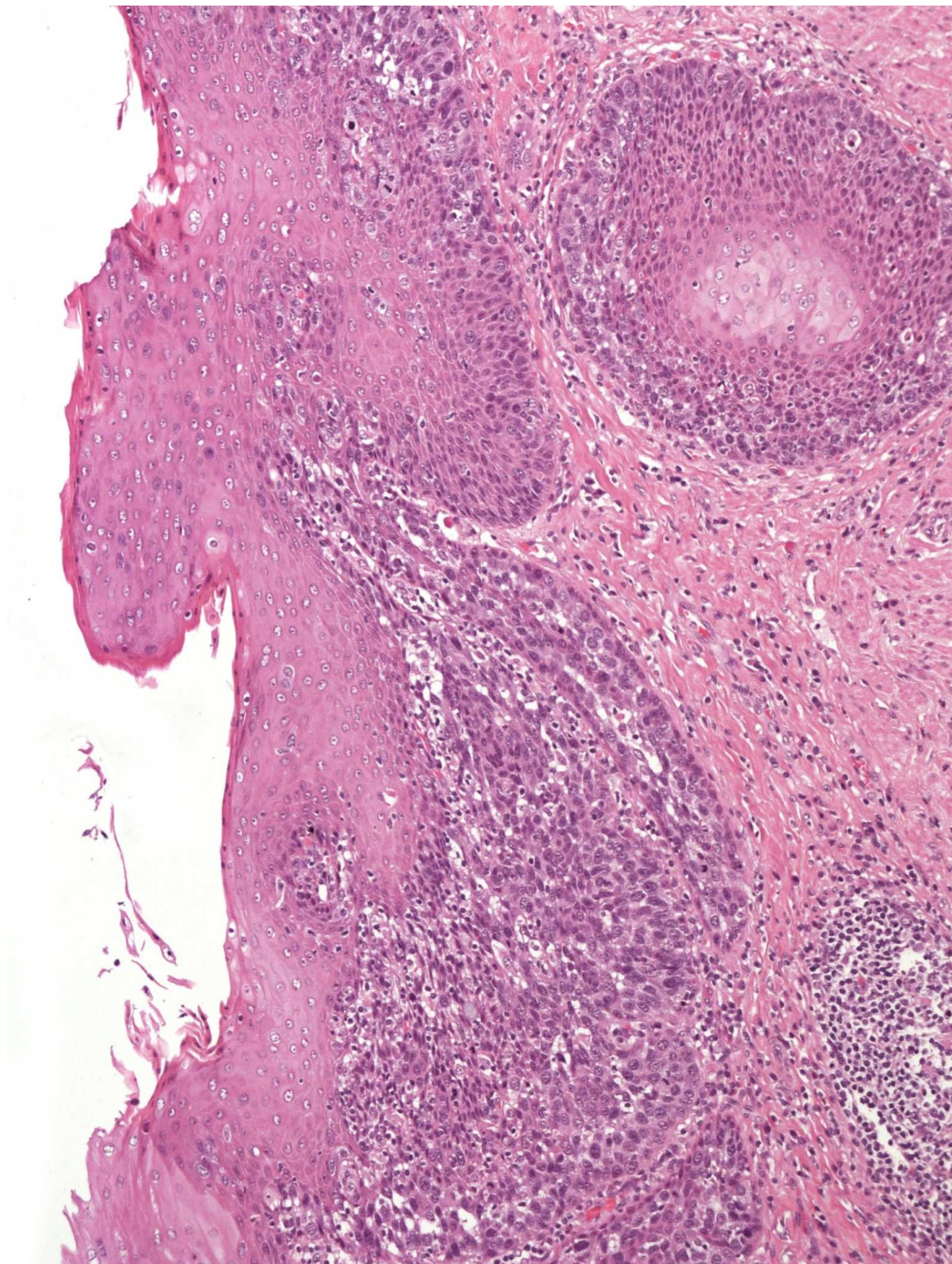


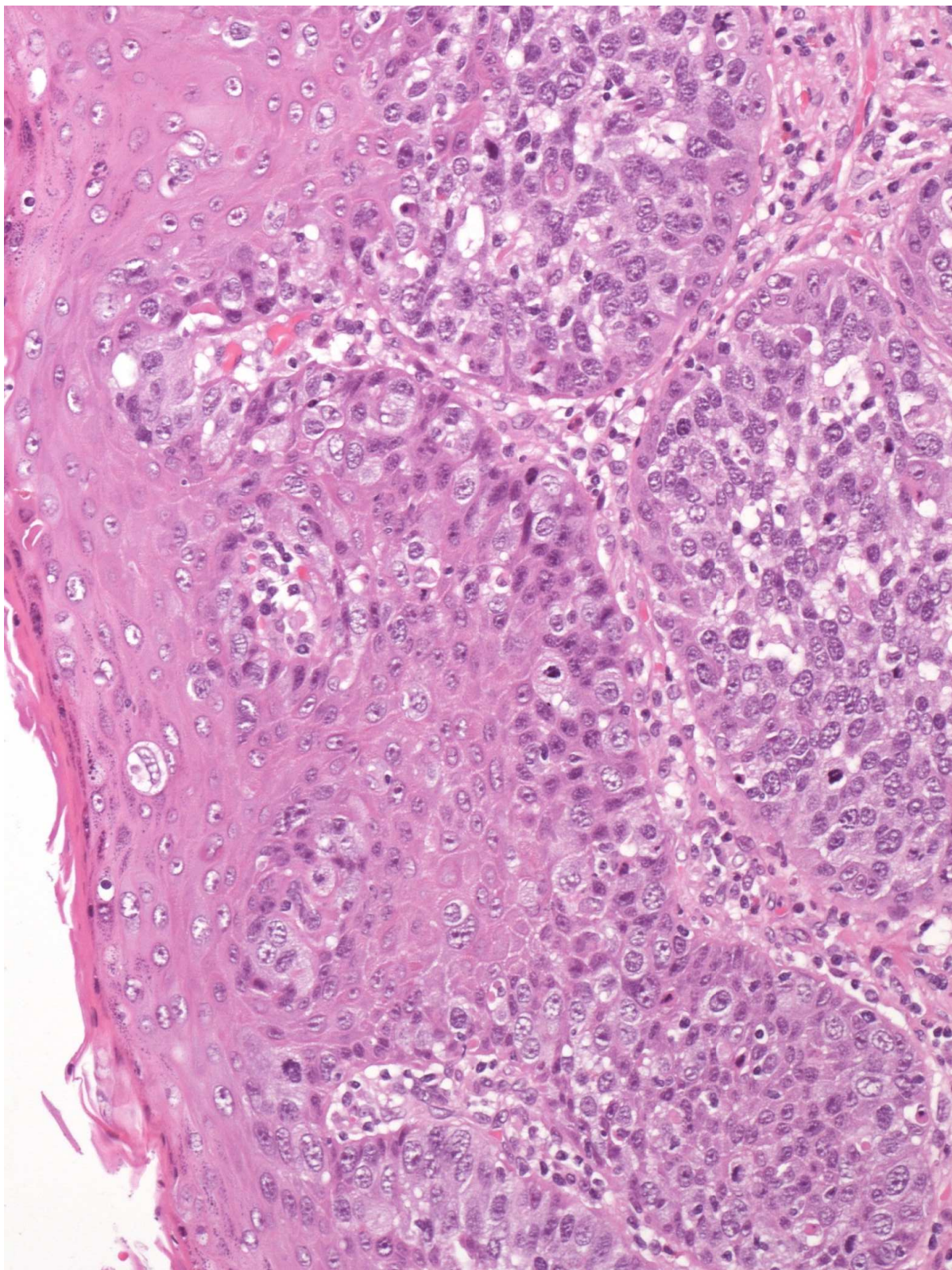


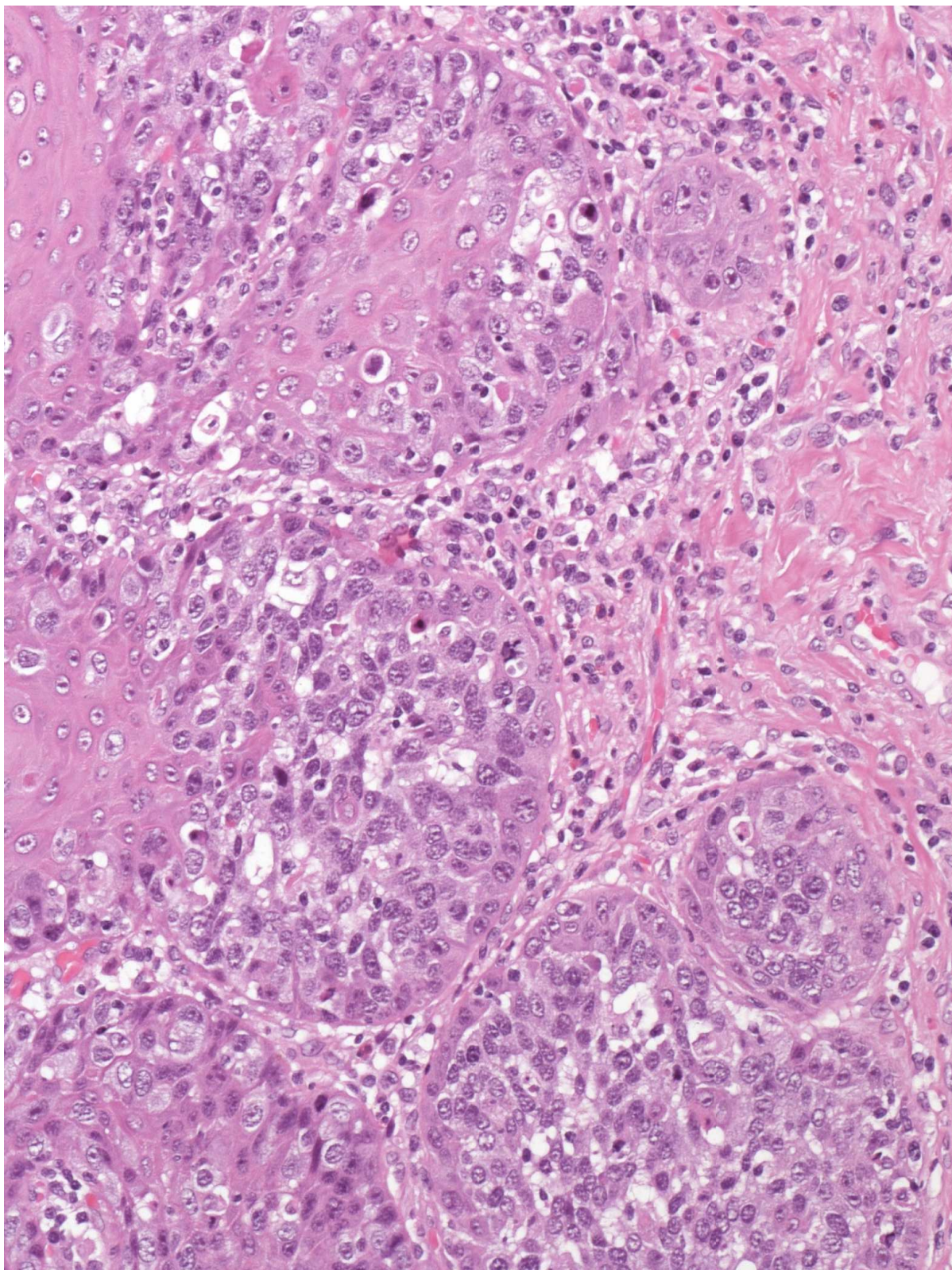


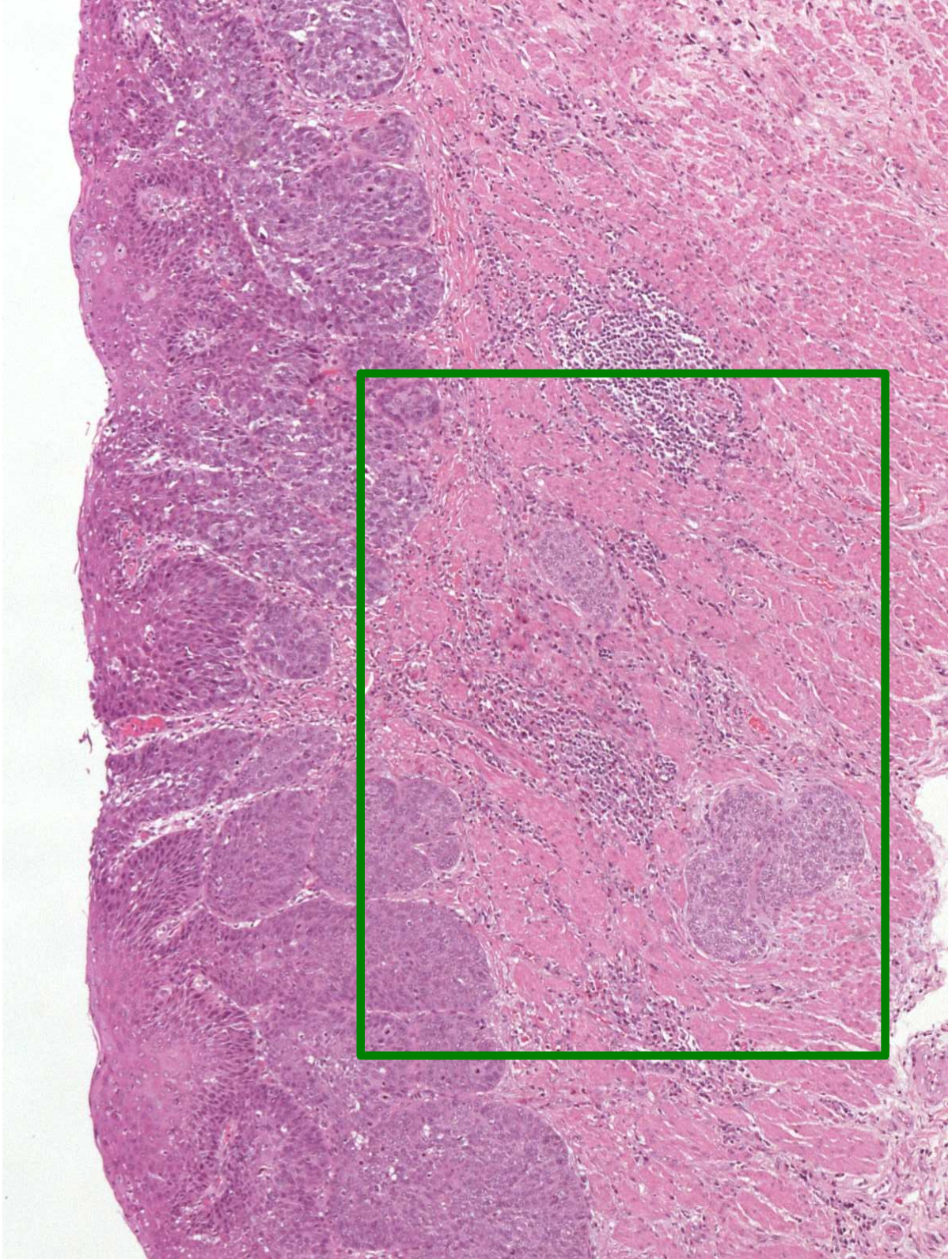


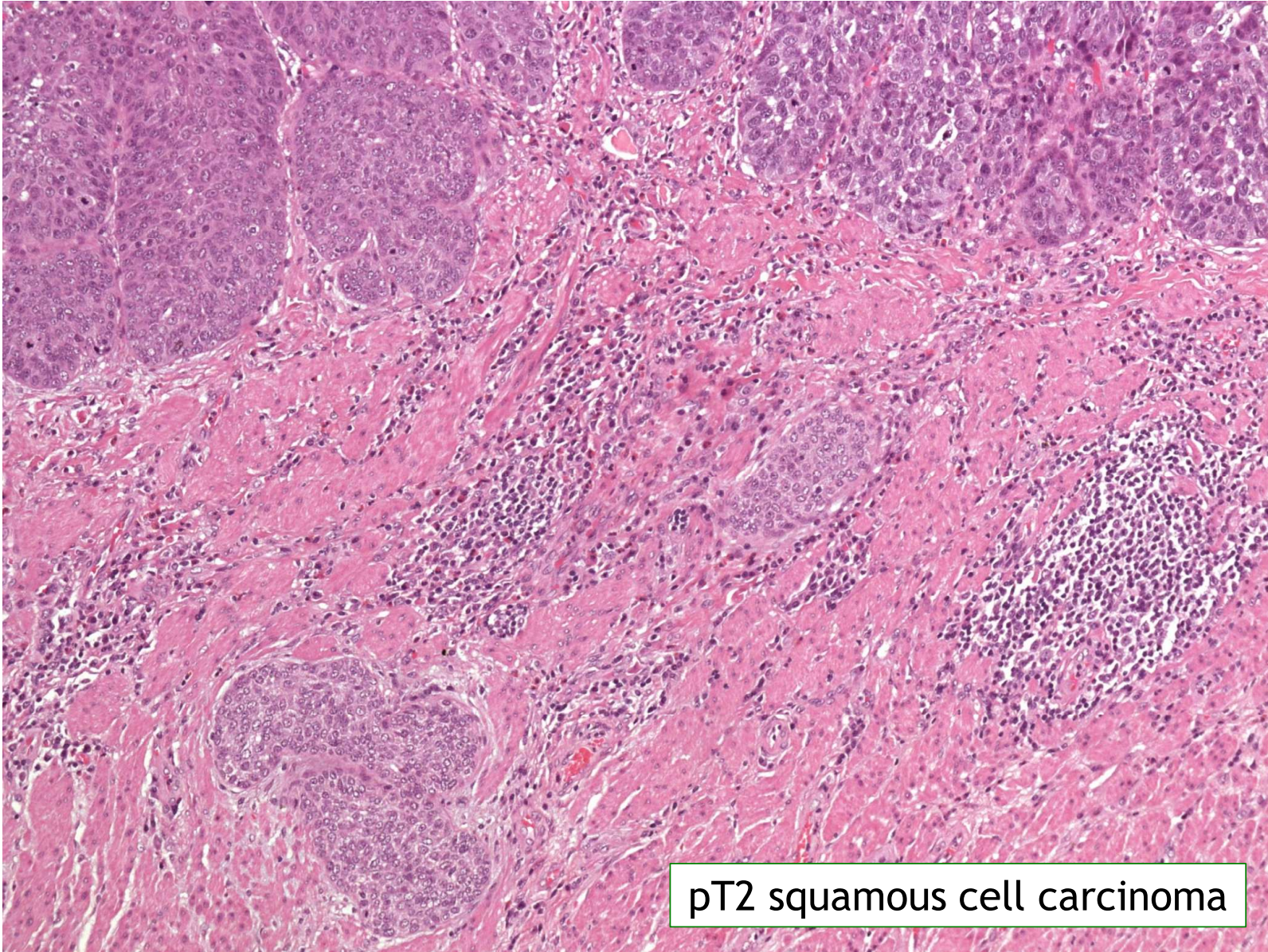
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pT2 squamous cell carcinoma

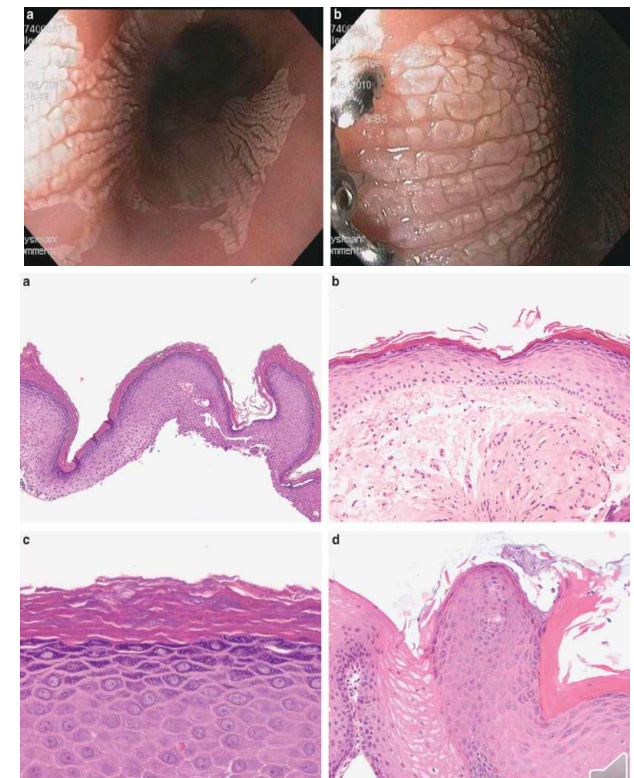


Esophageal leukoplakia or epidermoid metaplasia: a clinicopathological study of 18 patients

Aatur D Singhi¹, Christina A Arnold², Clinton D Crowder³, Dora M Lam-Himlin⁴, Lysandra Voltaggio⁵ and Elizabeth A Montgomery⁶

Table 1 Clinical and endoscopic findings of 18 patients with esophageal epidermoid metaplasia

Patient	Age (years)	Sex	Clinical presentation	Tobacco smoking (> 10 packs years)	Alcohol (> 2 per day)	Location/ distance from incisors (cm)	Other findings	Follow-up (months)
1	60	F	GERD	No	No	28–30	Adjacent high-grade squamous dysplasia	Status post EMR; NED (2)
2	54	F	Dysphagia	Yes	No	NA	No	NA
3	75	F	Dysphagia, h/o oral and esophageal lichen planus	Yes	No	Middle esophagus	No	NED (4)
4	69	F	Hematochezia	No, but long h/o second-hand smoke	Yes	33	Adjacent high-grade squamous dysplasia	SCC (2); Treated by esophagectomy
5	60	M	Achalasia	Yes	Yes	30	No	NED (12)
6	55	M	GERD	No	Yes	31	No	Persistent EEM (12)
7	70	F	Dysphagia	No	No	28–34	No	NA
8	37	M	GERD	No	Yes	35	No	Persistent EEM (30)
9	81	F	Dysphagia	Yes	No	25	No	Persistent EEM (14)
10	49	F	Dysphagia	Yes	No	28	No	Persistent EEM (99)
11	55	F	Dysphagia	Yes	Yes	27	Adjacent SCC	12 (NED)
12	58	M	Dysphagia	Yes	No	29–33	No	76 (NED)
13	72	F	Dysphagia, h/o oral and esophageal lichen planus	No	No	23–28	No	Persistent EEM (12)
14	61	M	Surveillance for h/o HGD in Barrett's mucosa s/p PDT	Yes	No	Two foci at 35 and 39	No	NA
15	66	M	Dysphagia, h/o laryngeal SCC	Yes	Yes	27–37	No	Persistent EEM (41)
16	77	F	Melena, anemia	No	No	Middle esophagus	No	NA
17	54	M	Dysphagia, nausea, melena	Yes	Yes	Middle esophagus	No	Persistent EEM (37)
18	54	M	GERD, epigastric discomfort	No	No	Distal esophagus	Adjacent basal crypt dysplasia in Barrett's mucosa	NA



Esophageal Epidermoid Metaplasia: Clinical Characteristics and Risk of Esophageal Squamous Neoplasia

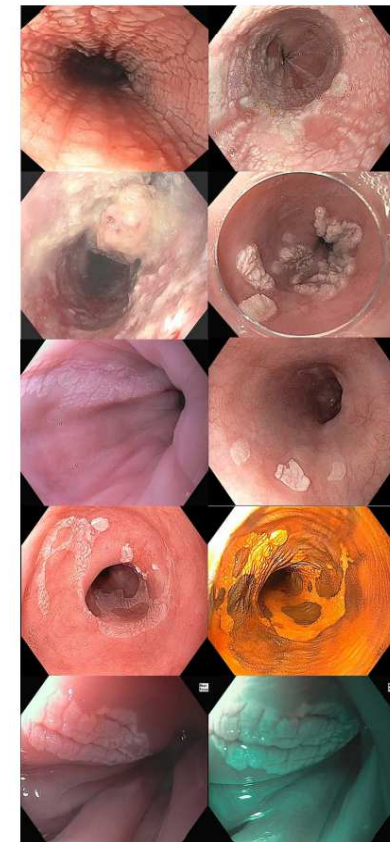
Amrit K. Kamboj, MD¹, Ying Y. Gibbens, MD, PhD², Catherine E. Hagen, MD³, Kenneth K. Wang, MD³, Prasad G. Iyer, MD³ and David A. Katzka, MD¹

Table 1. Epidemiology and clinical course of esophageal epidermoid metaplasia

	Patients with EEM (total n = 40)
Demographics	
Mean (SD) age at EEM diagnosis, yr	66.3 (11.5)
Sex	
Male	23 (58%)
Female	17 (42%)
Mean (SD) body mass index, kg/m ²	28.6 (8.1)
Current or former tobacco use	23 (58%)
Current or former alcohol use	29 (73%)
Esophageal disease before EEM diagnosis	
Gastroesophageal reflux disease	32 (80%)
Barrett's esophagus (BE)	
Nondysplastic BE	2 (5%)
Low-grade BE	1 (3%)
High-grade BE	4 (10%)
Esophageal adenocarcinoma	1 (3%)
Esophageal squamous cell carcinoma (ESCC)	8 (20%)
Esophageal lichen planus	5 (13%)

Location of EEM	
Proximal 1/3 only	1 (3%)
Middle 1/3 only	8 (20%)
Distal 1/3 only	19 (48%)
Proximal 2/3	5 (13%)
Distal 2/3	4 (10%)
Entire esophagus	3 (8%)
Treatment of EEM	
Clinical observation	26 (65%)
Endoscopic resection	9 (23%)
Ablation	5 (13%)
Median (range) follow-up time, mo	11.5 (0–72)
Median (range) EGDs after EEM diagnosis	2 (0–17)
Development of dysplasia or cancer after EEM diagnosis	
Squamous dysplasia	5 (13%)
Low-grade	3 (8%)
Moderate/high-grade	2 (5%)
ESCC	1 (3%)

BE, Barrett's esophagus; EEM, esophageal epidermoid metaplasia; EGD, esophagoduodenoscopy; ESCC, esophageal squamous cell carcinoma; SD, standard deviation.



... last but not least



Gastrointestinal effects of an attempt to avoid contracting COVID-19 by 'disinfection'

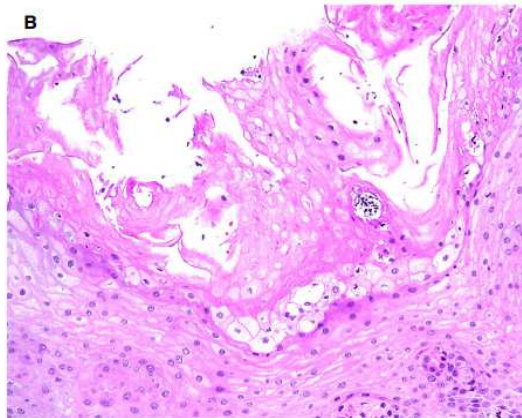


Figure 1. Oedema and increased friability of oesophageal mucosa with linear furrows and concentric ring formation (A). Histology demonstrates a 'two-toned appearance' with early epithelial sloughing (B).

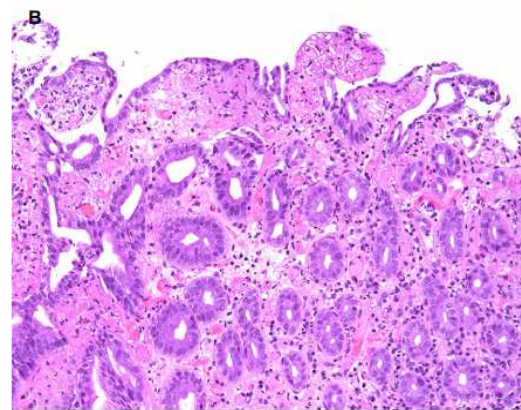
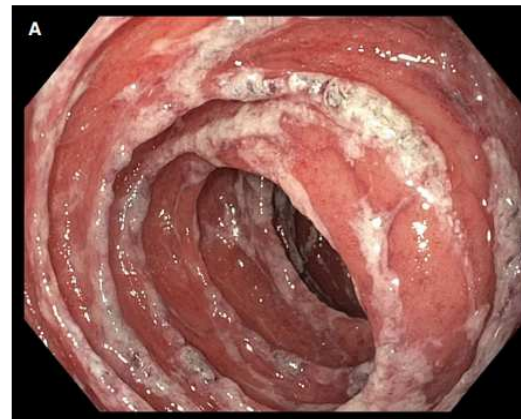


Figure 2. Severe superficial injury of the jejunal mucosa with fibrinous exudates, but no signs of active bleeding (A). The corresponding biopsy shows subacute necrosis with marked reactive changes of the adjacent epithelium (B).



Summary

- ▶ Sloughing oesophagitis is regarded as a drug-induced disease, which, in contrast to its spectacular morphology, generally shows a benign course and resolves after few weeks (few months) spontaneously (under symptomatic treatment)
- ▶ Please note: There is not complete overlap between the clinical and the histological diagnosis, possibly due to missing awareness of the disease (on both sides) and microscopic forms that have not (yet) induced grossly visible sloughing of the epithelium
- ▶ This does not imply the histological diagnosis is “not specific”
- ▶ Special stains are not needed



**Thank you very much for
your kind attention!**

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