10 anni
di screening dei tumori
del colon-retto
nella Regione Emilia-Romagna
Seminario di studio
Bologna, 9 aprile 2015

Adenocarcinomi T1 nel programma di screening dei tumori colorettali dell'Emilia-Romagna: frequenza, trattamento...

Romano Sassatelli, Cinzia Campari

T1 “endoscopici”: di cosa parliamo

di un cancro con caratteristiche morfologiche per cui si è ritenuta possibile l'asportazione endoscopica con intento radicale

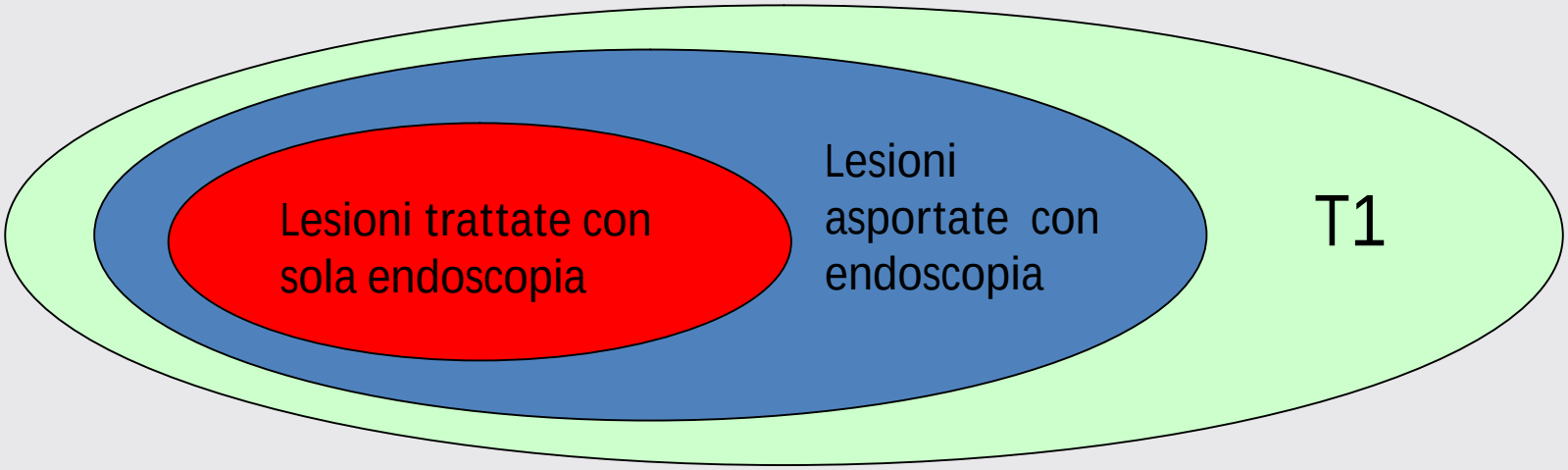
Cosa succede, di solito

	≤T1	> T1 o T1 AR*
Biopsie e chirurgia	**Overtreatment**	
Asportazione endoscopica		**Biologia / Inadeguato trattamento**

*** Invasione linfatici (vascolare), margini, profondità di invasione, Grading, Budding**

Pazienti con diagnosi istologica di polipo cancerizzato del colon retto, dopo asportazione giudicata completa dall'endoscopista.

Studio Sec-Giscor (criteri di inclusione)



EPIDEMIOLOGIA & PREVENZIONE

Rivista dell'Associazione italiana di epidemiologia ANNO 31 (6) NOVEMBRE-DICEMBRE 2007 SUPPLEMENTO 1

OSSERVATORIO NAZIONALE SCREENING

Indicatori di qualità per la valutazione dei programmi di screening dei tumori colorettali

Manuale operativo

GISCoR
Gruppo Italiano Screening ColoRettale

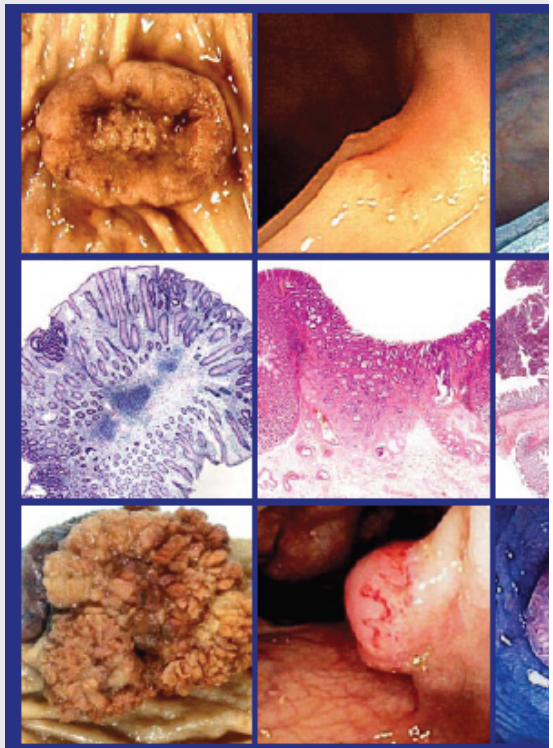
15. Proporzione di carcinomi senza indicazione all'intervento chirurgico
Proportion of cancer cases not referred for surgery

Definizione	Proporzione di persone con diagnosi di carcinoma trattato solo endoscopicamente, senza indicazione all'intervento chirurgico.
Scopo	E' utile che sia nota la proporzione di carcinomi in cui è sufficiente il solo trattamento endoscopico, meno invasivo di quello chirurgico, perché ha effetti sulla qualità della vita.
Dati necessari	E' necessario il numero di persone con diagnosi di carcinoma e, tra queste, quante hanno avuto trattamento solo endoscopico senza indicazione all'intervento chirurgico.
Formula	**Proporzione di persone con carcinoma senza indicazione all'intervento chirurgico** $= \frac{\text{n. persone con diagnosi di carcinoma senza indicazione all'intervento chirurgico}}{\text{n. persone con diagnosi di carcinoma}} \times 100$
Interpretazione	Il trattamento dei carcinomi esclusivamente per via endoscopica dipende da diversi fattori tra cui la dimensione, la forma e la sede della lesione. Non è pertanto possibile definire a priori uno standard.
Standard di riferimento	Viene sollecitata la raccolta, nessuno standard di riferimento.
Note	In linea teorica i casi suscettibili di trattamento esclusivamente endoscopico sono rappresentati dagli adenomi cancerizzati che all'esame istologico sull'intero polipo presentino i criteri prognostici favorevoli o di basso rischio, per i quali si rimanda al documento dei patologi del GISCoR.[22]

16. Proporzione di lesioni benigne con indicazione all'intervento chirurgico

Proportion of adenoma cases referred for surgery

Definizione	Proporzione di persone con diagnosi di adenoma (avanzato o iniziale) in cui viene posta indicazione all'intervento chirurgico.
Scopo	E' un indicatore sia della qualità della colonscopia sia dell'attitudine degli endoscopisti (o dell'équipe di 2°-3° livello).
Dati necessari	E' necessario il numero di persone con diagnosi di adenoma e, tra queste, di quante hanno avuto indicazione all'intervento chirurgico.
Formula	**Proporzione di adenomi con indicazione all'intervento chirurgico** $= \frac{\text{n. persone con diagnosi di adenoma e indicazione all'intervento chirurgico}}{\text{n. persone con diagnosi di adenoma}} \times 100$
Interpretazione	L'indicazione all'intervento chirurgico per le lesioni benigne dipende da diversi fattori tra cui la sede, la dimensione, la forma e il tipo della lesione, non è pertanto possibile definire a priori uno standard.
Standard di riferimento	Viene sollecitata la raccolta, nessuno standard di riferimento.



European guidelines for quality assurance
cancer screening and diagnosis F

1. NO NEOPLASIA:[2]

Vienna Category 1 (Negative for neoplasia)

2. MUCOSAL LOW GRADE NEOPLASIA:

Vienna Category 3 (Mucosal low-grade neoplasia
Low-grade adenoma
Low-grade dysplasia);
Other common terminology
mild and moderate dysplasia;
WHO: low-grade intra-epithelial neoplasia

3. MUCOSAL HIGH GRADE NEOPLASIA:

Vienna: Category 4.1–4.4 (Mucosal high grade neoplasia
High-grade adenoma/dysplasia
Non-invasive carcinoma (carcinoma *in situ*)
Suspicious for invasive carcinoma
Intramucosal carcinoma);
Other common terminology
severe dysplasia;
high-grade intraepithelial neoplasia;
WHO: high-grade intraepithelial neoplasia
TNM: pTis

4. CARCINOMA invading the submucosa or beyond:

4a. Carcinoma confined to submucosa
Vienna: Category 5 (Submucosal invasion by carcinoma);
TNM: pT1
4b. Carcinoma beyond submucosa
TNM: pT2-T4

Management of pT1 colorectal cancer

8.16 If there is clinical suspicion of a pT1 cancer, a site of excision should be marked with submucosal India ink **(VI - C).** Sect 8.4.1

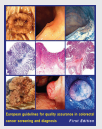
8.17 Where a pT1 cancer is considered high-risk for residual disease consideration should be given to completion colectomy along with radical lymphadenectomy, both for rectal cancer **(II - A)** and colon cancer **(VI - A)**. If surgical resection is recommended, consideration should be given to obtaining an opinion from a second histopathologist as variation exists in evaluating high risk features (see also Ch. 7, Rec. 7.7) **(VI - B).** Sect 8.4.2; 7.5.3

8.18 After excision of a pT1 cancer, a standardised follow-up regime should be instituted **(VI - A).** The surveillance policy employed for high-risk adenomas is appropriate for follow-up after removal of a low-risk pT1 cancer (see Ch. 9, Rec. 9.16) **(III - B).** Sect 8.4.3; 9.5.1

pT1 cancers can be categorised into low-risk and high-risk lesions according to their likelihood of being associated with lymph node metastases:

- Low risk: Well or moderately differentiated and no lymphovascular invasion; rate of lymph node metastases <5%
- High risk: Poorly differentiated and/or lymphovascular invasion; rate of lymph node metastases ~35%

The significance of venous invasion is currently unknown.



8.4.2 Completion surgery

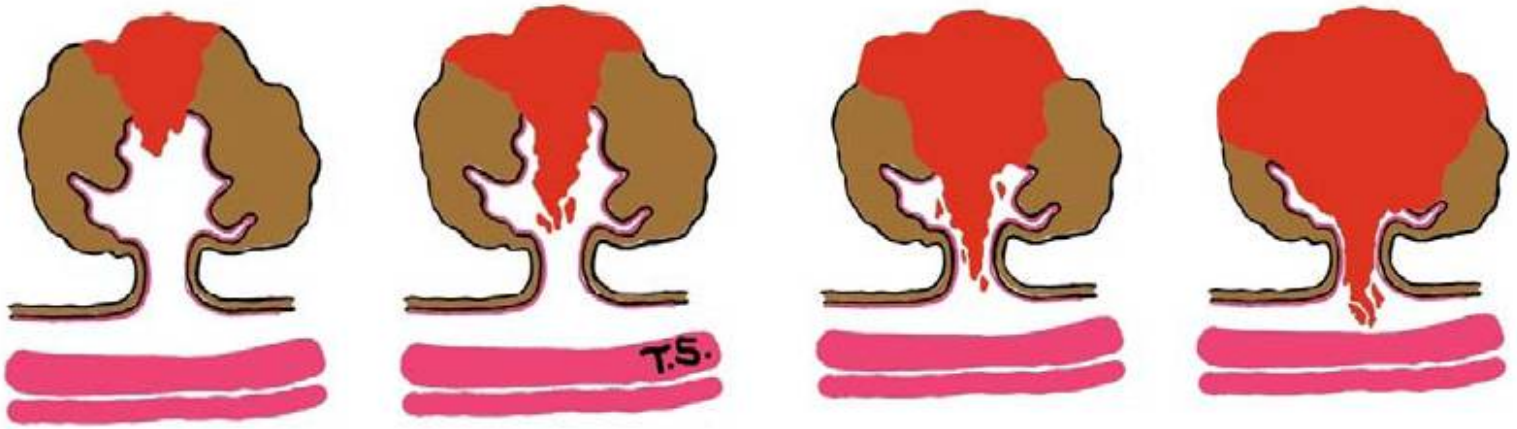
Patients with a histologically confirmed, completely removed low-risk pT1 cancer do not require additional surgery, due to their low risk of lymph node metastases. In patients with a high-risk polyp cancer with clear margins (R0), the multidisciplinary team should be consulted on whether completion surgery involving removal of the part of the large bowel in which the polyp was situated, along with radical lymphadenectomy, for both rectal cancer **(II - A)** and colon cancer **(VI - A)** is recommended. [Rec 8.17] If surgical resection is recommended, consideration should be given to obtaining an opinion from a second histopathologist, as variation exists in evaluating high risk features (See also Ch. 7, Sect. 7.5.3 and Rec. 7.7) **(VI - B).**[Rec 8.17] The precise nature of the surgery will of course depend on the site of the pT1 cancer. It may be difficult to precisely locate the site of the previous polypectomy and for this reason inking of the site at the time of initial polypectomy is advised when there is any clinical suspicion of polyp cancer (see above).

It should be noted that if a suspected pT1 cancer has been *incompletely* removed, lack of invasion beyond the submucosa cannot be guaranteed, and thus even in the situation where the lesion is well or moderately differentiated with no lymphovascular invasion, further treatment is required. This will usually take the form of completion surgery, although repeat endoscopic excision may be possible and appropriate in some situations.

In summary, current consensus would classify a pT1 cancer as high-risk requiring completion surgery

Polipi peduncolati

Figure 7.2: Haggitt levels of invasion in polypoid carcinomas



Level 1:
invasion of the submucosa but limited to the head of the polyp

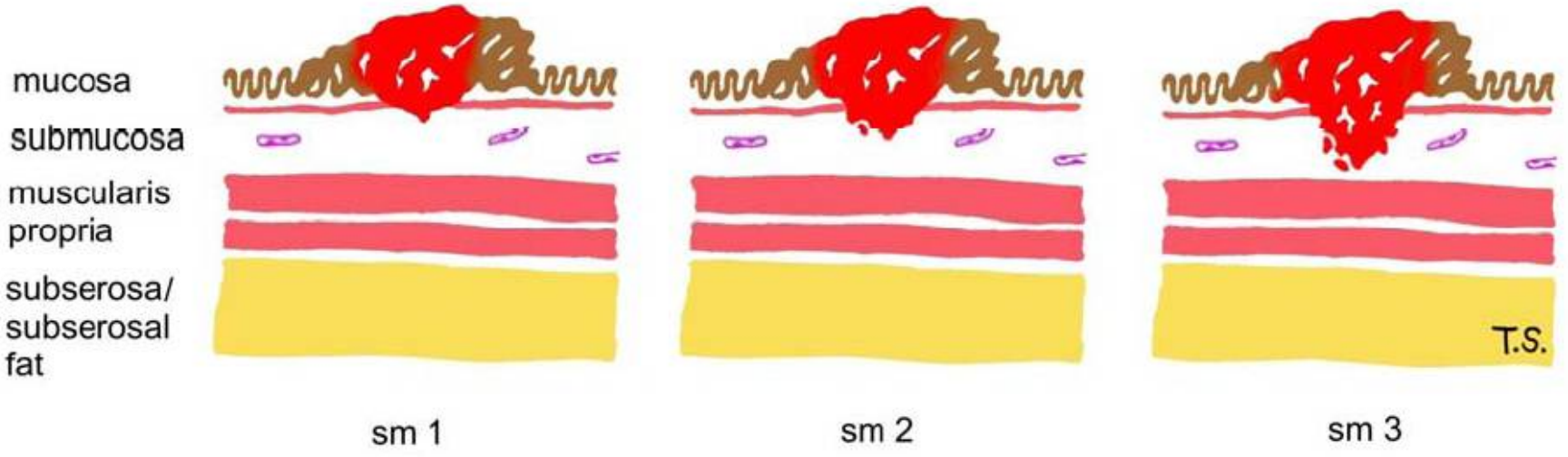
Level 2:
invasion extending into the neck of polyp

Level 3:
invasion into any part of the stalk

Level 4:
invasion beyond the stalk but above the muscularis propria

Polipi sessili

Figure 7.1: Kikuchi levels of submucosal infiltration modified from Nascimbeni et al. (2002)



Kikuchi cannot be used in the absence of
muscularis propria (quindi consideriamo se ≥ 1 mm)

Haggitt is not applicable in non-polypoid lesions**, and measurement depends on a recognisable submucosa from which to measure**

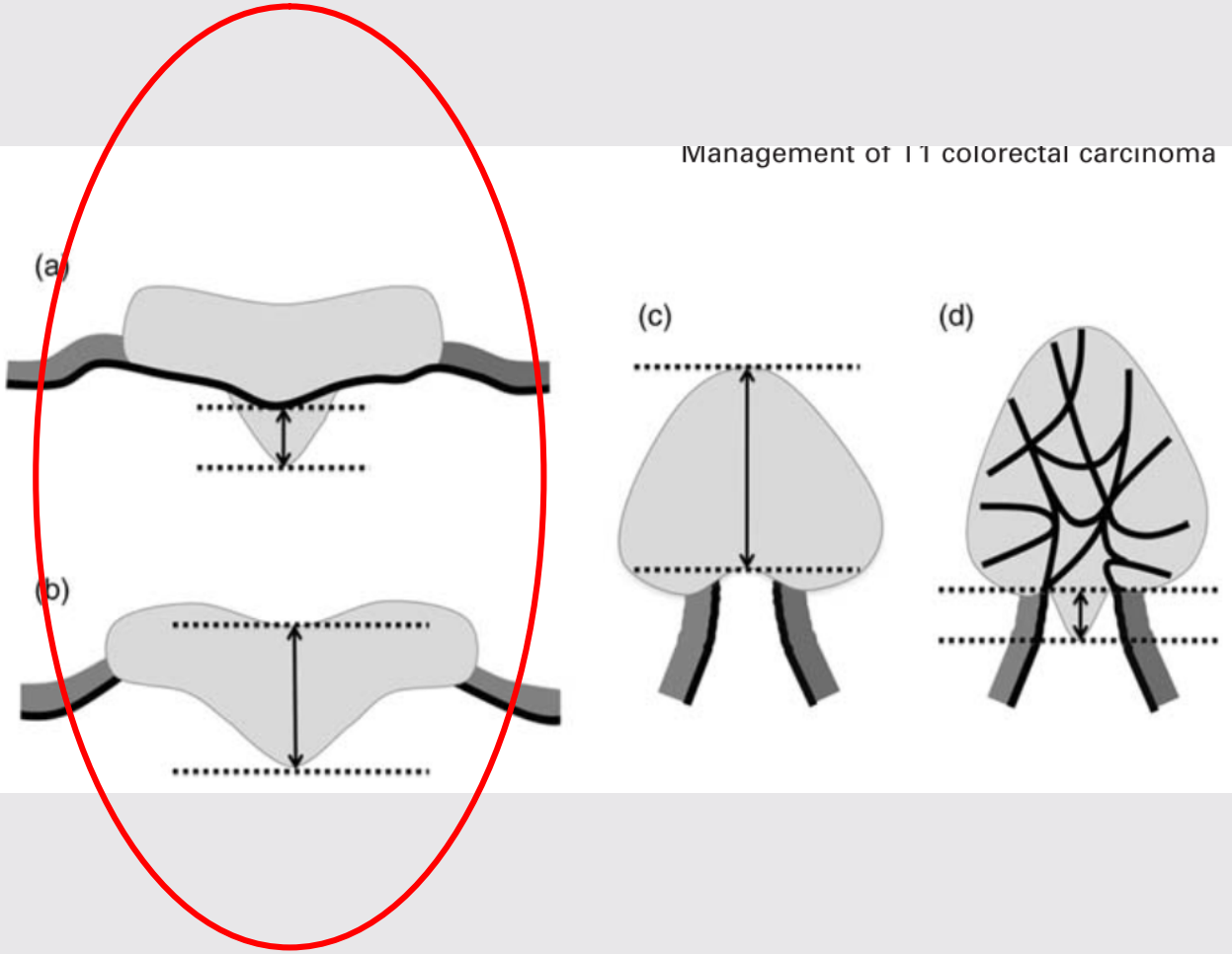
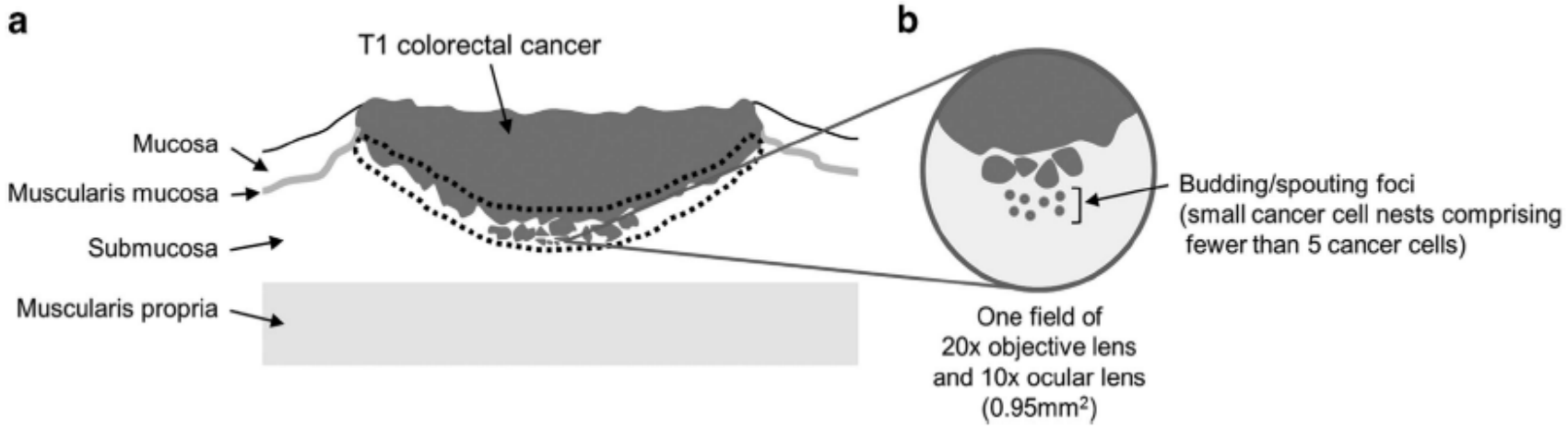


Figure 2 Measurement of the depth of submucosal invasion of colorectal carcinoma. (a) When the level of the muscularis mucosae can be detected or presumed, the distance from the muscularis mucosae to the tumor apex is measured. (b,c) When the level of the muscularis mucosae cannot be detected or presumed, the distance from the tumor surface to the tumor apex is measured. (b, sessile polyp; c, pedunculated polyp). (d) If a pedunculated polyp involves the muscularis mucosae (such as a Peutz-Jeghers polyp), the distance from the neck to the tumor apex is measured (deeper than Haggitt level 2).


a
T1 colorectal cancer
Mucosa
Muscularis mucosa
Submucosa
Muscularis propria
b
Budding/spouting foci
(small cancer cell nests comprising
fewer than 5 cancer cells)
One field of
20x objective lens
and 10x ocular lens
(0.95mm²)

Caveat

- Are we accurately measuring depth of SM invasion mm vs Kikuchi?

(Haboubi, Colorect Dis 2013)

- Condition of muscolaris mucosae (< for clearly identiefid) as a risk factor for LNM

(Nakadoi, Surg Endosc 2014)

Integrating European GL

Invasione linfatici (vascolare), margini, profondità di invasione,
Grading, Budding in funzione di LNM (SYST REV)

Evidenze di efficacia ET/surgery in popolazione,
variabilità di trattamento

Systematic review and meta-analysis of histopathological factors influencing the risk of lymph node metastasis in early colorectal cancer

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Received 18 June 2012; accepted 4 September 2012; Accepted Article online 20 January 2013

Colorectal Disease © 2013 The Association of Coloproctology of Great Britain and Ireland. **15,** 788–797

Abstract

Aim Lymph node (LN) metastases are present in up to 17% of early colorectal cancers (pT1). Identification of associated histopathological factors would enable counselling of patients regarding this risk.

Method Pubmed and Embase were employed utilizing the terms 'early colorectal cancer', 'lymph node metastasis', 'submucosal invasion', 'lymphovascular invasion', 'tumour budding' and 'histological differentiation'. Analysis was performed using REVIEW MANAGER 5.1.

Results Twenty-three cohort studies including 4510 patients were analysed. There was a significantly higher risk of LN metastasis with a depth of submucosal invasion > 1 mm than with lesser degrees of penetration [redacted]5% CI 1.50–10.00, $P = 0.005$). Lymphovascular invasion was significantly associated with LN metastas[redacted]5% CI 3.14–7.37, $P < 0.00001$). Poorly differentiated tumours had a higher risk of LN metastasis compared with well or moderately differentiated tumours [redacted] 95% CI 2.90–10.82, $P < 0.00001$). Tumour budding was found to be significantly associated with LN metasta[redacted]5% CI 4.47–13.39, $P < 0.001$).

Conclusion Meta-analysis of the current literature demonstrates that in early colorectal cancer a depth of submucosal invasion by the primary tumour of > 1 mm, lymphovascular invasion, poor differentiation and tumour budding are significantly associated with LN metastasis.

Keywords Early colorectal cancer, lymph node metastasis, submucosal invasion, lymphovascular invasion, tumour budding, histological differentiation

Pathologic predictive factors for lymph node metastasis in submucosal invasive (T1) colorectal cancer: a systematic review and meta-analysis

Shanshan Mou · Roy Soetikno · Tadakasu Shimoda · Robert Rouse · Tonya Kaltenbach

Surg Endosc (2013) 27:2692–2703

Received: 21 July 2012 / Accepted: 21 December 2012 / Published online: 8 February 2013

Abstract

Background Colorectal adenocarcinoma with depth of invasion ≤1,000 μm from the muscularis mucosa and favorable histology is now considered for local resection. We aimed to examine the strength of evidence for this emerging practice.

Methods We searched Medline, Scopus, and Cochrane (1950–2011), then performed a meta-analysis on the risk of lymph node metastasis in nonpedunculated (sessile and nonpolypoid) T1 colorectal cancers. We included studies with nonpedunculated lesions, actual invasion depth, and pathologic factors of interest. Synchronous, polyposis or secondary cancers, and chemoradiation studies were excluded. Our primary outcome was the risk of LNM. We analyzed using Review Manager; we estimated heterogeneity using Cochran Q χ^2 test and I^2. We generated summary risk ratios using a random effects model, performed sensitivity analyses, and evaluated the quality of evidence using GRADEPro.

Results We identified 209 articles; 5 studies ($n = 1213$ patients) met the [redacted]. The risk of LNM in nonpedunculated [redacted] interval 0.5–4.8 %). [redacted] 95 % confidence interval 11.5–15.4 %). [redacted] protective against LNM were ≤1,000 μm invasion, well differentiation, absence of lymphatic and vascular invasion, and absence of tumor budding. We did not detect significant study heterogeneity. The quality of evidence was poor.

Conclusions Well-differentiated nonpedunculated T1 colorectal cancer invasive into the submucosa ≤1,000 μm, without lymphovascular involvement or tumor budding, has the lowest risk of nodal metastasis. Importantly, the risk was not zero (1.9 %), and the qualitative formal analysis of data was not strong. As such, endoscopic resection alone may be adequate in select patients with submucosal invasive colorectal cancers, but more studies are needed. Overall, the quality of evidence was poor; data were from small retrospective studies from limited geographic regions.

Predicting lymph node metastasis in pT1 colorectal cancer: a systematic review of risk factors providing rationale for therapy decisions

Endoscopy 2013; 45: 827–834

Authors Steven L. Bosch[1], Steven Teerenstra[2], Johannes H. W. de Wilt[3], Chris Cunningham[4], Iris D. Nagtegaal[1]

Background and study aim: Population screening for colorectal cancer (CRC) is expected to increase the number of pT1 CRCs. Local excision is an attractive treatment option, but is only oncologically safe in the absence of lymph node metastasis (LNM). A systematic review of the predictive value of pathological risk factors for LNM in pT1 CRC was conducted to provide data for an evidence-based decision regarding follow-up or radical surgery after local excision.

Methods: PubMed was searched for reports on predictors of LNM in pT1 CRC. Published papers written in English and containing at least 50 patients were included. Meta-analyses were performed using Review Manager 5.1.

Results: A total of 17 studies were included involving a total of 3621 patients with available nodal status. The strongest independent predictors of LNM were lymphatic invasion (relative risk [RR] % confidence interval [CI] 4.0–6.8), submucosal invasion ≥1 mm 95%CI 1.8–15.4), budding 95% .3), and poor histological differentiation 95%CI 3.3–6.9). Limitations of the study were: results could not be stratified according to location in the colon or rectum; very early tumors removed by polypectomy without surgical resection were not included in the meta-analysis; and included studies were primarily from Asian countries and results therefore need to be verified in Western populations.

J Gastroenterol
DOI 10.1007/s00535-015-1057-0 2015

The Japanese Society of Gastroenterology

REVIEW

Systematic review and meta-analysis of histopathological predictive factors for lymph node metastasis in T1 colorectal cancer

Hiroo Wada · Manabu Shiozawa · Kayoko Katayama · Naoyuki Okamoto · Yohei Miyagi · Yasushi Rino · Munetaka Masuda · Makoto Akaike

Abstract

Background In this study we examined whether histopathological findings, specifically lymphatic vessel invasion identified by an anti-human podoplanin antibody, and several other factors are associated with lymph node metastasis in T1 colorectal cancer.

Methods We searched PubMed and Cochrane Library, and also handsearched relevant journals, for reports written in English and published between 1998 and 2012, utilizing combination headings, such as 'colorectal cancer,' 'lymph node metastasis,' and 'risk factors.' For the report to be included in our study, the following criteria had to be met: (1) data on the frequency of lymph node metastasis in T1 colorectal cancer in relation to histopathological factors were reported; (2) patients had undergone bowel resection and had histologically diagnosed T1 colorectal cancer; (3) lymphatic vessel invasion was identified by immunohistochemistry with an anti-human podoplanin antibody rather than by hematoxylin and eosin staining; (4) univariate and multivariate analyses were conducted. Studies investigating molecular markers were excluded. The independent predictive factors were confirmed in at least one study included in the meta-analysis in the present systematic review. Microsoft Excel 2013 for Windows was used for the statistical analysis.

Results Initially, 369 publications were identified in the database searches and handsearches, of which five ultimately met all of the inclusion criteria and selected for this systematic review. The meta-analysis revealed that only two factors were significantly associated with T1 colorectal cancer lymph node metastasis: (1) lymphatic vessel invasion identified by an anti-human podoplanin antibody [Mantel–Haenszel odds ratio (O[redacted]5 % confidence interval (CI) 3.31–8.15; $P = 0.0$[redacted]; (2) tumor budding (OR [redacted] % CI 4.27–13.02; $P = 0.0077$).

Conclusion Our meta-analysis revealed that lymphatic vessel invasion identified by an anti-human podoplanin antibody and tumor budding were significantly associated with T1 colorectal cancer lymph node metastasis.

En bloc

= ESD ?

Table 1 Indications for colorectal ESD at National Cancer Center Hospital

Non-invasive pattern should be diagnosed by chromo-magnification colonoscopy				
Tumor size (mm)	<10	10–20	20–30	>30
0-IIa, IIc, IIa+IIc (LST-NG)†	EMR	EMR	ESD candidate	ESD candidate
0-Is+IIa (LST-G)‡	EMR	EMR	EMR	Possible ESD candidate
0-Is (villous)§	EMR	EMR	EMR	Possible ESD candidate
Intramucosal tumor with non-lifting sign¶	EMR	EMR/ESD	Possible ESD candidate	Possible ESD candidate
Rectal carcinoid tumor††	ESMR-L	ESD/Surgery	Surgery	Surgery

Non-invasive pattern diagnosed by chromo-magnification colonoscopy.
†0-IIa, IIc, IIa+IIc (laterally spreading tumor non-granular type: LST-NG) > 20 mm.
‡0-Is+IIa (LST granular type: LST-G) > 30 mm.
§0-Is (villous) > 30 mm.
¶Intramucosal tumors with non-lifting sign which are difficult to resect en-bloc by conventional EMR.
††Rectal carcinoid tumors <1 cm in diameter can be treated by endoscopic submucosal resection using a ligation device (ESMR-L) simply, safely and effectively, so not an indication for ESD.
EMR, endoscopic mucosal resection; ESD, endoscopic submucosal dissection.

ESD

- En-bloc and curative resection rates 88% and 89%
- Mean procedure time 116’ with mean tumor size of 35 mm
- Perforations 4.9%with 0.4% delayed perforation and 1.5% postoperative bleeding

Saito GIE 2010, 1090 pts

Table 3. Overall data from outcome of colorectal ESD by summary of previous reports by single institution (non-multicenter study)

Each item	Overall data	Range
En bloc resection	82.8% (2082/2516)	61–98.2%
Complete en bloc resection	75.7% (1271/1680)	58–95.6%
Perforation	4.7% (127/2719)	1.4–8.2%
Postoperative bleeding	1.5% (31/2087)	0.5–9.5%
Local recurrence	1.2% (9/768)	0–11%

Data from 2719 cases in 13 institutions described in Table 1.

Tanaka Dig Endosc 2012

Endoscopic and surgical treatment of malignant colorectal polyps: a population-based comparative study

Rawad Mounzer, MD,[1] Ananya Das, MD,[2] Roy D. Yen, MD, MPH,[1] Amit Rastogi, MD,[3] Ajay Bansal, MD,[3] Lindsay Hosford, BA,[1] Sachin Wani, MD[1,4]

Denver, Colorado; Gilbert, Arizona; Kansas City, Missouri, USA

Background: Long-term population-based data comparing endoscopic therapy (ET) and surgery for management of malignant colorectal polyps (MCPs) are limited.

Objective: To compare colorectal cancer (CRC)–specific survival with ET and surgery.

Design and Setting: Population-based study.

Patients: Patients with stage 0 and stage 1 MCPs were identified from the Surveillance Epidemiology and End Results (SEER) database (1998-2009). Demographic characteristics, tumor size, location, treatment modality, and survival were compared. Propensity-score matching and Cox proportional hazards regression models were used to evaluate the association between treatment and CRC-specific survival.

Interventions: ET and surgery. No LNM

Main Outcome Measurements: Mid-term (2.5 years) and long-term (5 years) CRC-free survival rates and independent predictors of CRC-specific mortality.

Resu with erwen nderwent surgery. Patie[illegible] more likely to be older white men [illegible] surgical patients had more right-sided lesions, larger MCPs, and stage 1 disease. There was no difference in the 2.5-year and 5-year CRC-free survival rates between the 2 groups in stage 0 disease. Surgical resection led to higher 2.5-year (97.8% vs 93.2%; $P < .001$) and 5-year (96.6% vs 89.8%; $P < .001$) CRC-free survival in stage 1 disease. These results were confirmed by propensity-score matching. ET was a significant predictor for CRC-specific mortality in stage 1 disease (hazard ratio 2.40; 95% confidence interval, 1.75-3.29; $P < .001$).

Limitations: Comorbidity index not available, selection bias.

TABLE 2. Comparison of CRC-free survival at 2.5 and 5 years after endoscopic therapy and surgery in patients with stage 0 (Tis) and stage 1 (T1N0) malignant colorectal polyps

Variable	Endoscopic treatment (n = 2688)	Surgery (n = 7715)	*P* value
Overall 2.5-y CRC-free survival rate, %	95.9	97.7	<.001
Stage 0, %	97.6	97.5	.75
Stage 1, %	93.2	97.8	<.001
Overall 5-y CRC-free survival rate, %	94	96.5	<.001
Stage 0, %	96.3	95.9	.75
Stage 1, %	89.8	96.6	<.001

CRC, Colorectal cancer.

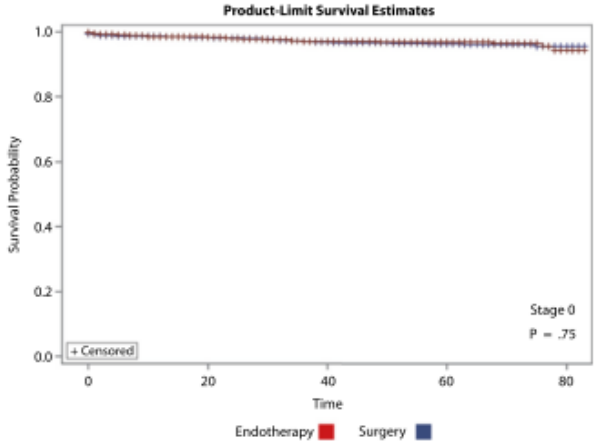


Figure 2. Kaplan-Meier colorectal cancer–specific survival curves comparing endoscopic therapy and surgical resection for patients with stage 0 colorectal cancer.

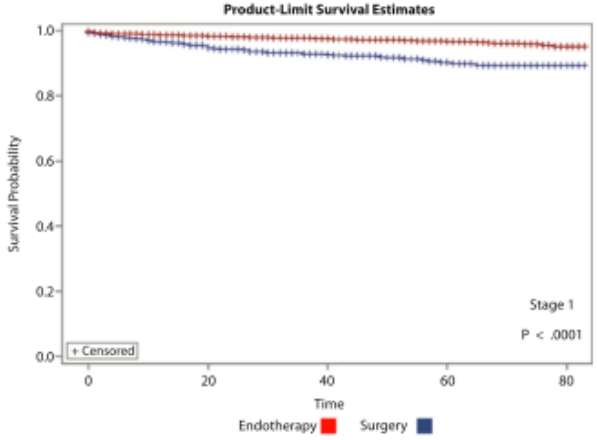


Figure 3. Kaplan-Meier colorectal cancer–specific survival curves comparing endoscopic therapy and surgical resection for patients with stage 1 colorectal cancer.

RCS
ADVANCING SURGICAL STANDARDS

COLORECTAL

Ann R Coll Surg Engl 2013; **95**: 477–480
doi 10.1308/003588413X13629960048271

Variability in management of T1 colorectal cancer in Wales

U Khalid, MD Evans, GL Williams, J Hanson, M Davies

on behalf of the Colorectal Cancer Subgroup of the National Specialist Advisory Group for Cancer, Wales, UK

ABSTRACT

INTRODUCTION The management of T1 colorectal cancer is controversial. Surgical resection should offer cure in the majority of patients and can stage lymph nodes accurately. Nevertheless, there can be significant associated morbidity and it potentially risks overtreating the patient. Endoscopic/local excision has significantly reduced morbidity but risks undertreating undetected metastatic lymph nodes, thereby compromising oncological outcomes. The aim of this study was to review the practice across Wales over a two-year period.

METHODS Data on T1 tumours for the period of 2009–2011 were collected from the Cancer Network Information System Cymru.

RESULTS A total of 161 patients were diagnosed as having T1 colorectal cancer (without prior neoadjuvant treatment). The median age was 68 years (range: 14–91 years) and 66% of the patients were male. Forty-eight (30%) of these tumours were screen detected. There were 112 colonic and 49 rectal tumours. Ninety-five patients with colonic tumours (85%) underwent major surgical resections, 51% of which were laparoscopic. Forty patients with rectal cancers (82%) underwent major surgical resection and 45% of these procedures were laparoscopic. The rest of the patients underwent local excision in the form of endoscopic polypectomy or transanal resection.

CONCLUSIONS This study demonstrates that there is no consensus in the management of T1 disease across Wales. With the advent of screening and the development of more sophisticated endoscopic techniques, the decision of how to treat T1 colorectal cancer will become a more regular challenge for the colorectal multidisciplinary team. The treatment needs standardisation. For now, however, this balance of risk will need to be made on an individual patient basis.

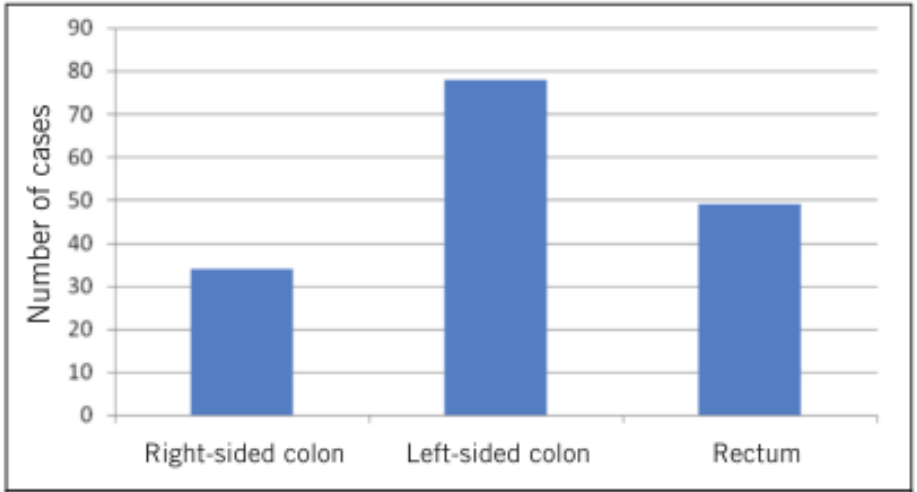


Figure 1 Distribution of T1 tumours according to tumour site

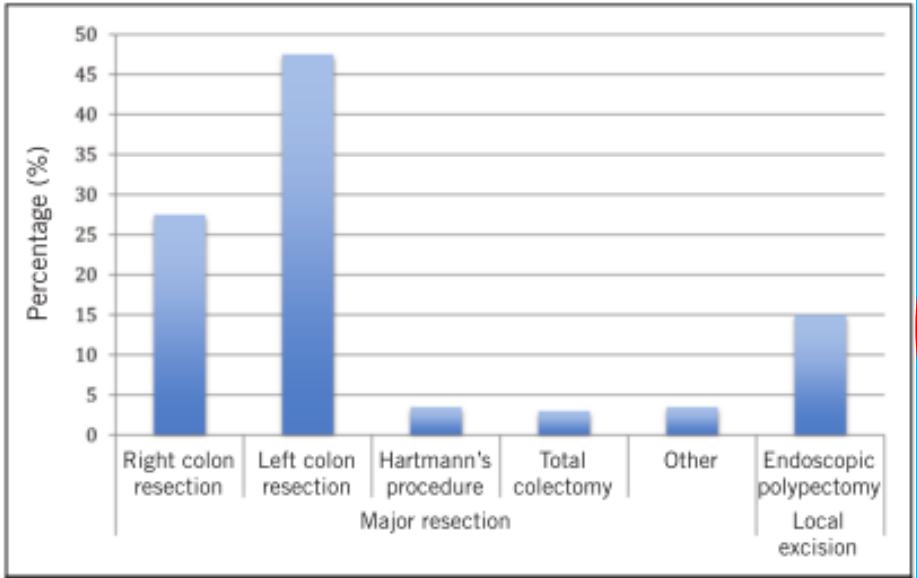


Figure 2 Treatment for T1 cancers originating in the colon

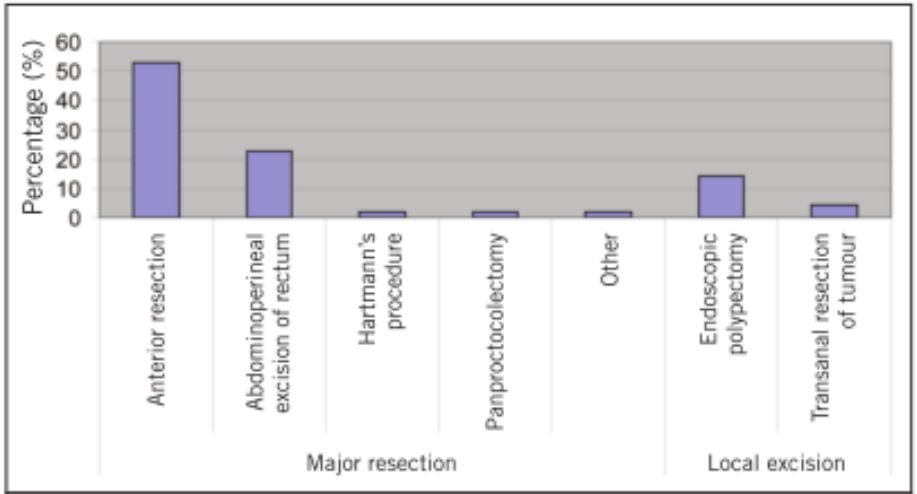


Figure 3 Treatment for T1 cancers originating in the rectum

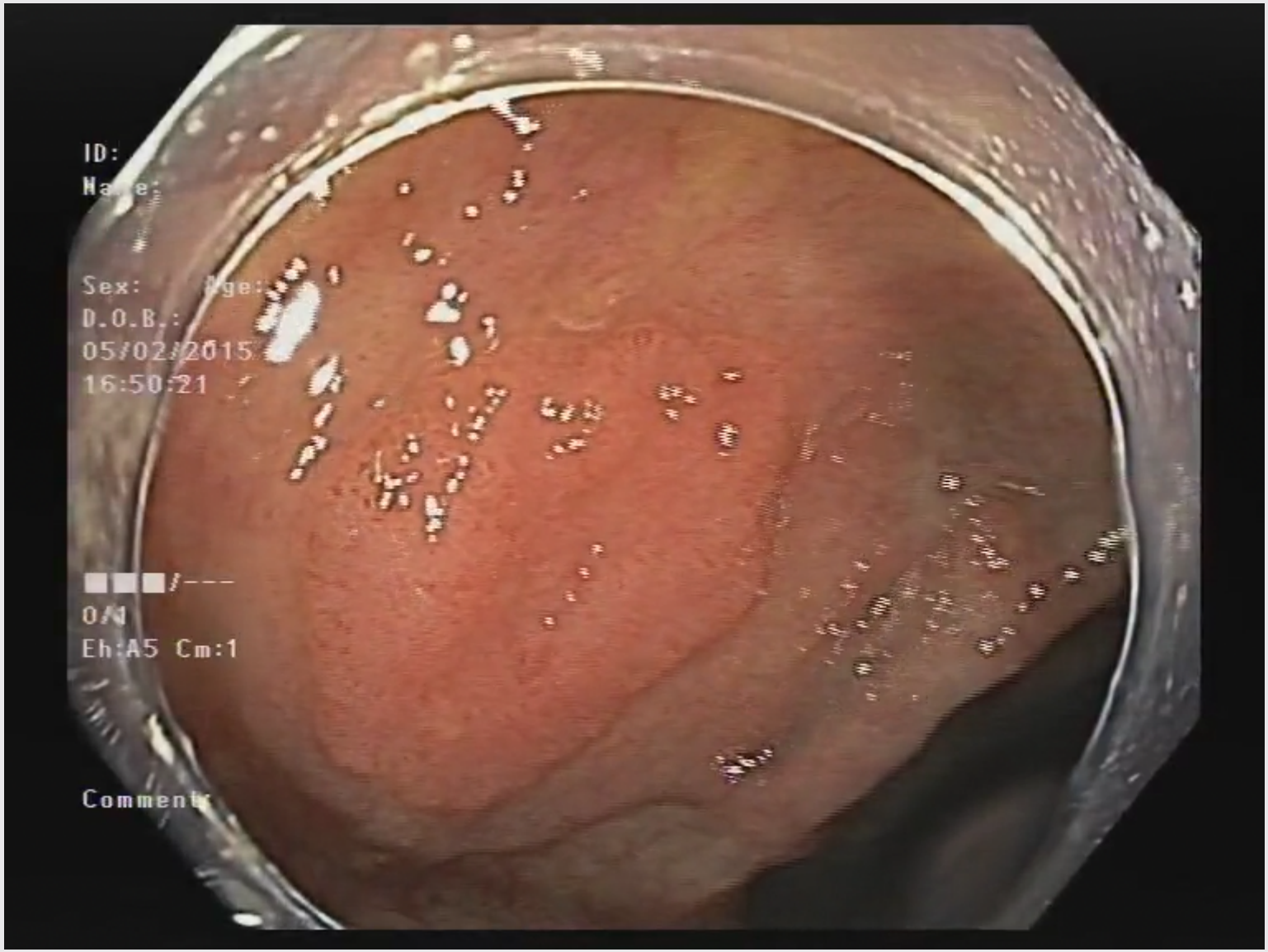
“Aiuto Molecolare”

Table 2. Molecular markers associated with the risk of lymph node metastasis in early colorectal cancer

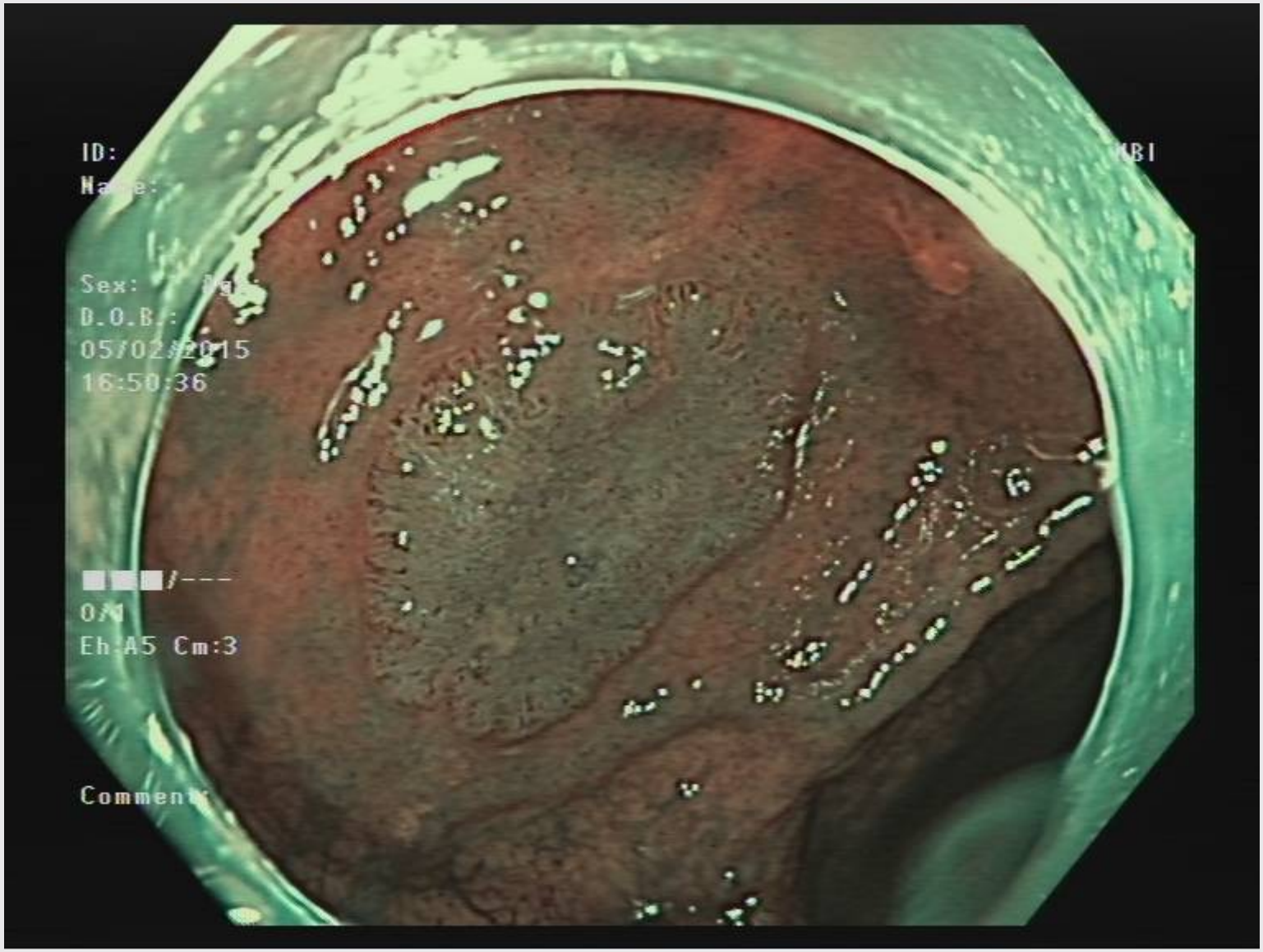
Tumor suppressor genes and their products
p53 overexpression
Loss of p27 expression
Markers involved in tumor vascularization
Microvessel density
VEGF/VEGF-C
COX-2
Markers related to cell adhesion and invasion
E-cadherin
α-Catenin/β-catenin
CD44 variant 6
Additional markers identified by gene expression analysis
CITED1

- MMR, p53, MSI not predictive
  (Wook Huh, J Surg Oncol 2014)
- CD10 expression associated with LNM
  (Nishida Dis Col Rectum 2014)
- Lymphatic invasion better identified with D2-40 immunostaining
  (Wada Int J Clin Oncol 2013)
- No LNM in MSI-H
  (Kang Yonsei Med J 2015)

Il problema principale: come sospettare un T1



M, 77°, hep flex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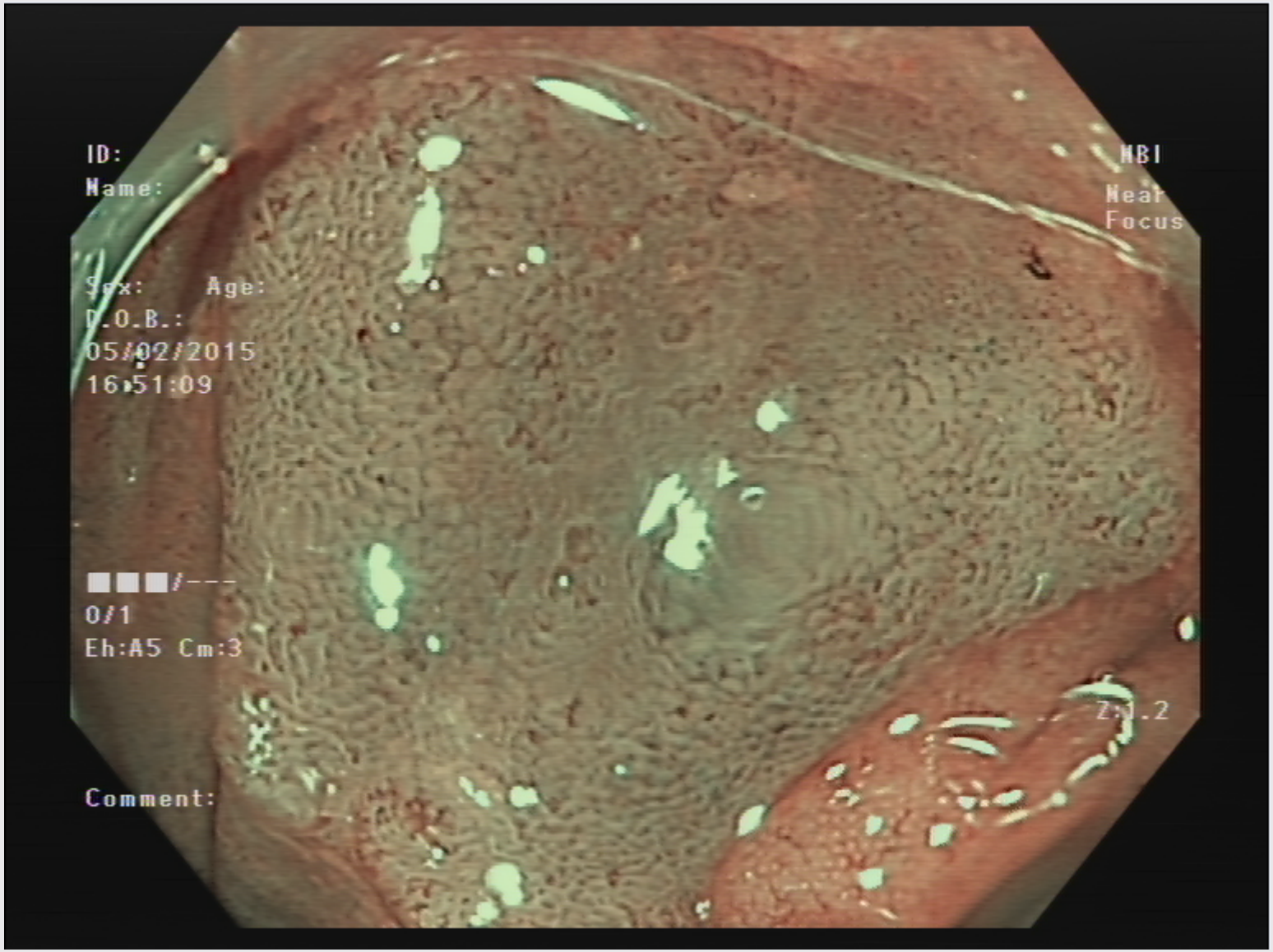
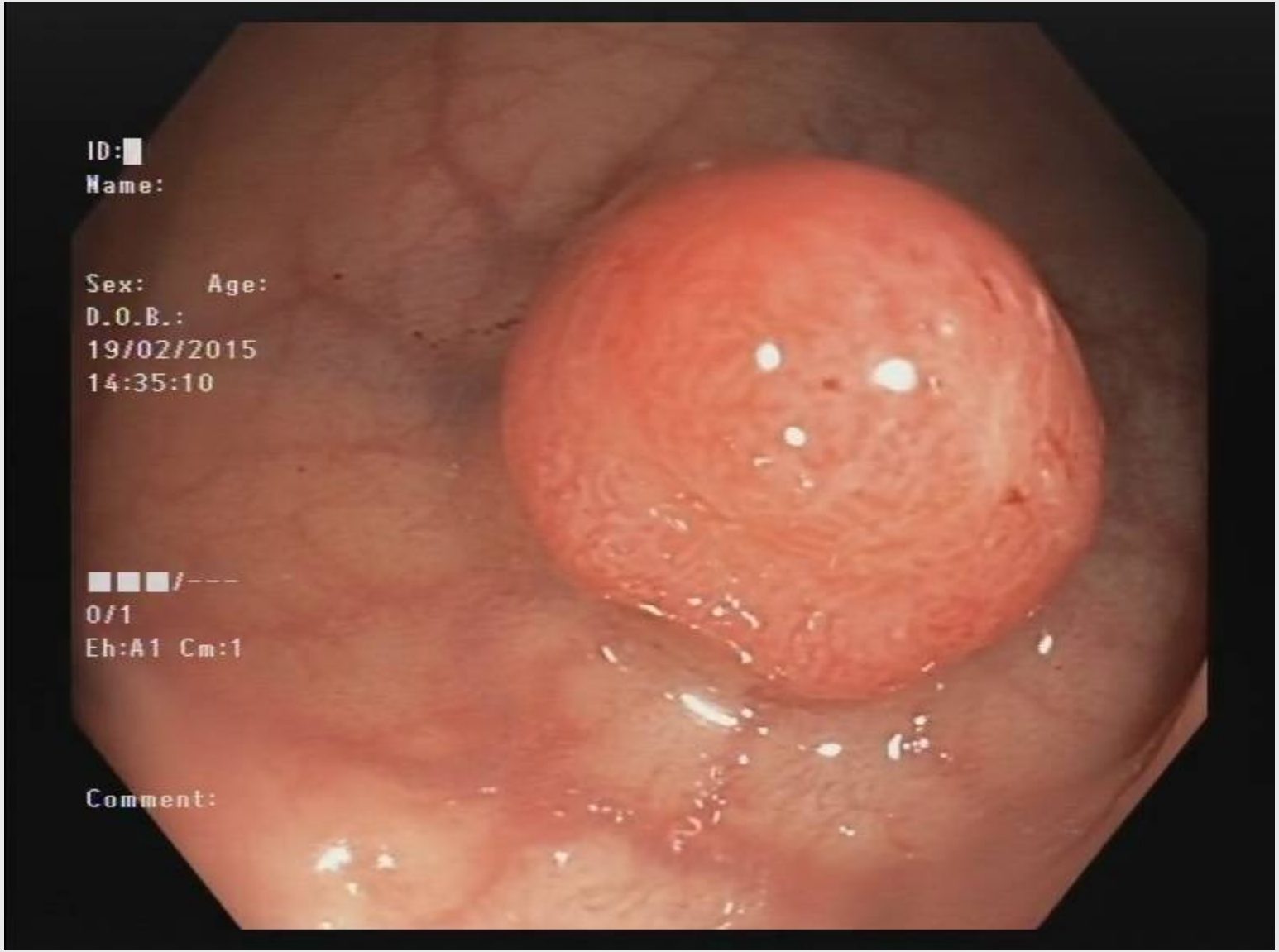
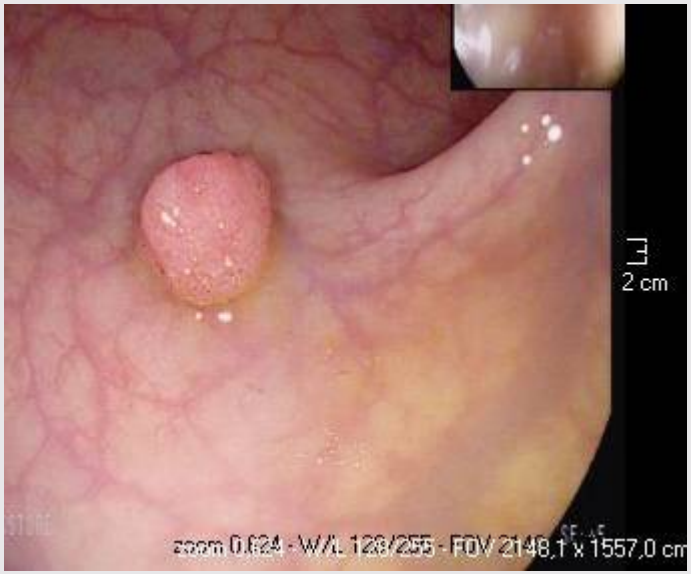


R. Sassatelli



F, 61 a, sigma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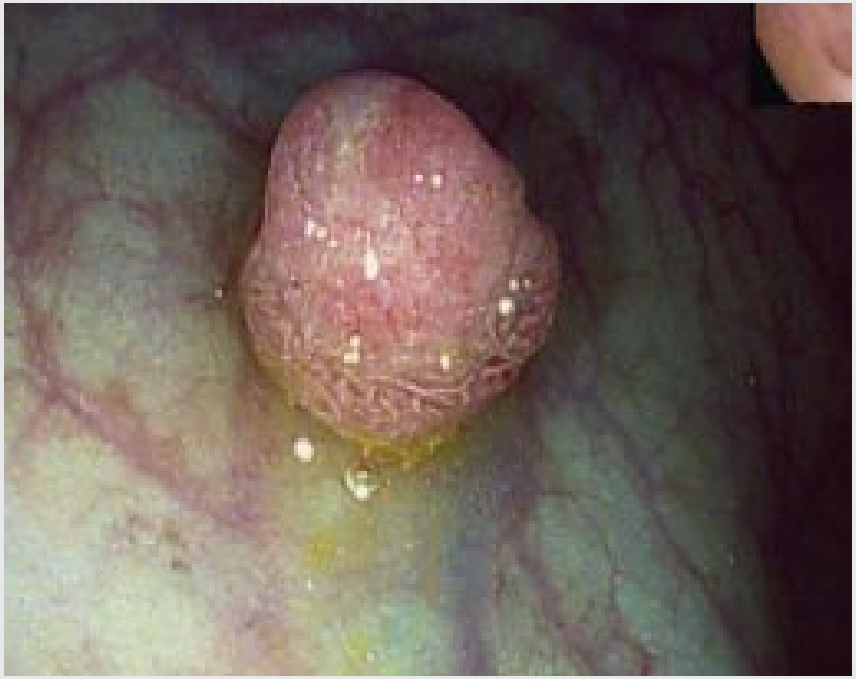
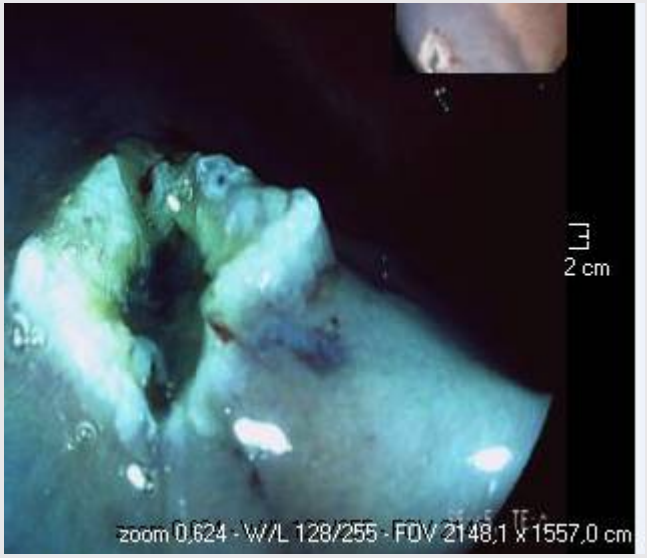
zoom 0,624 - W/L 128/255 - FOV 2148,1 x 1557,0 cm

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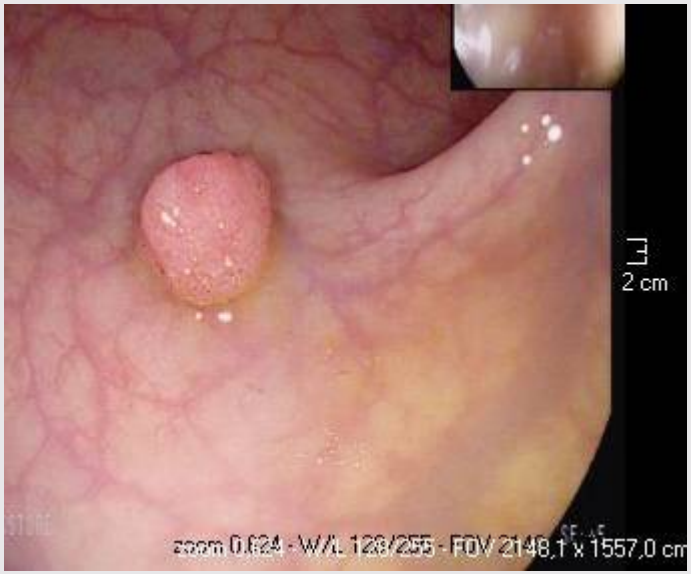
M, 69 a, retto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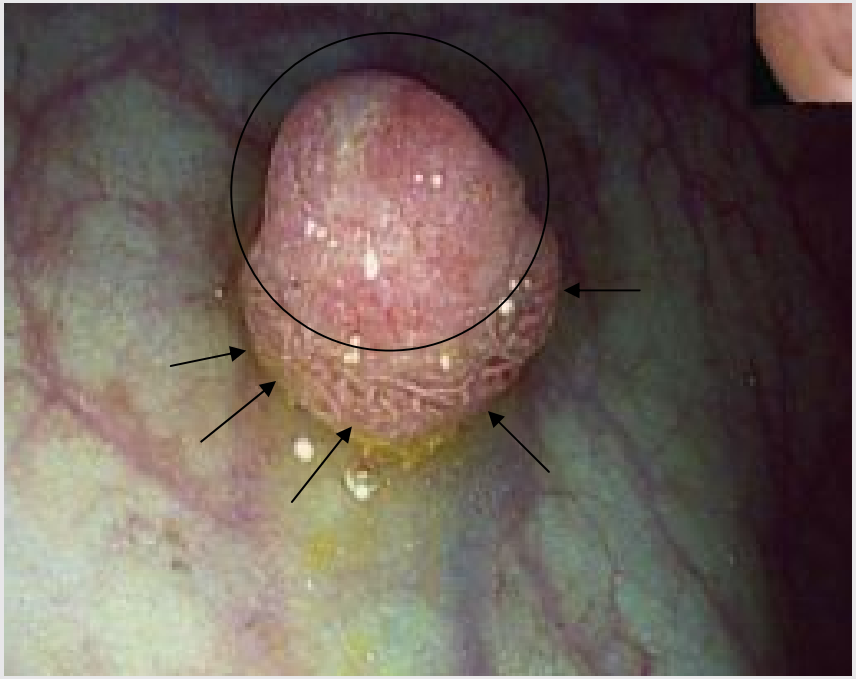

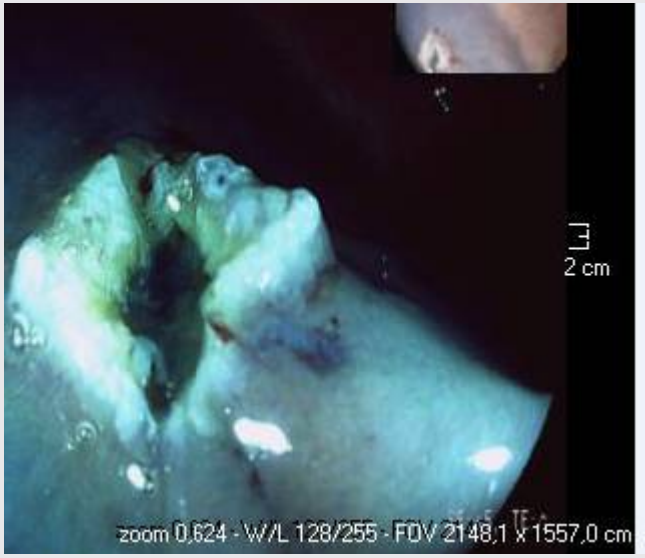
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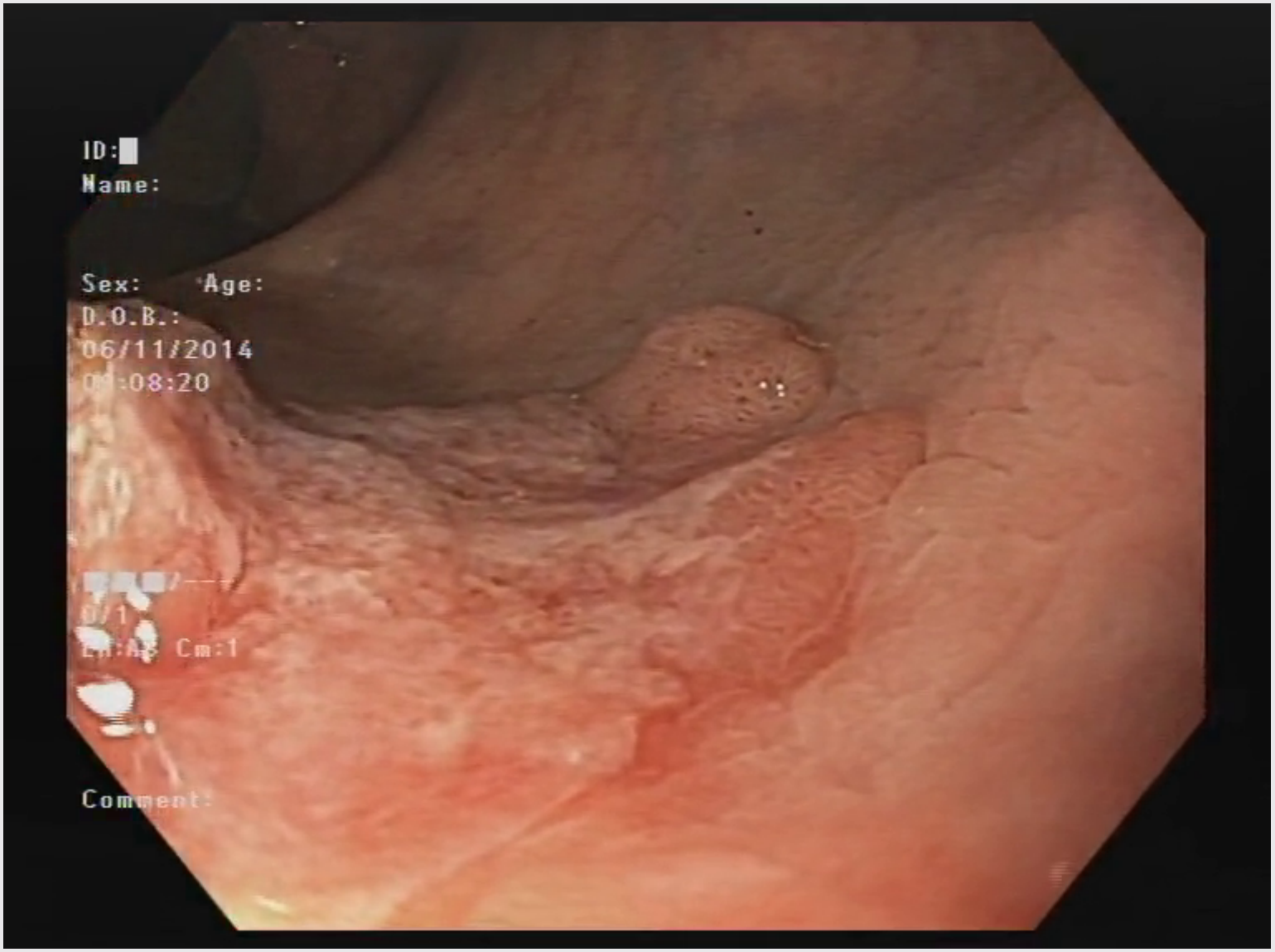
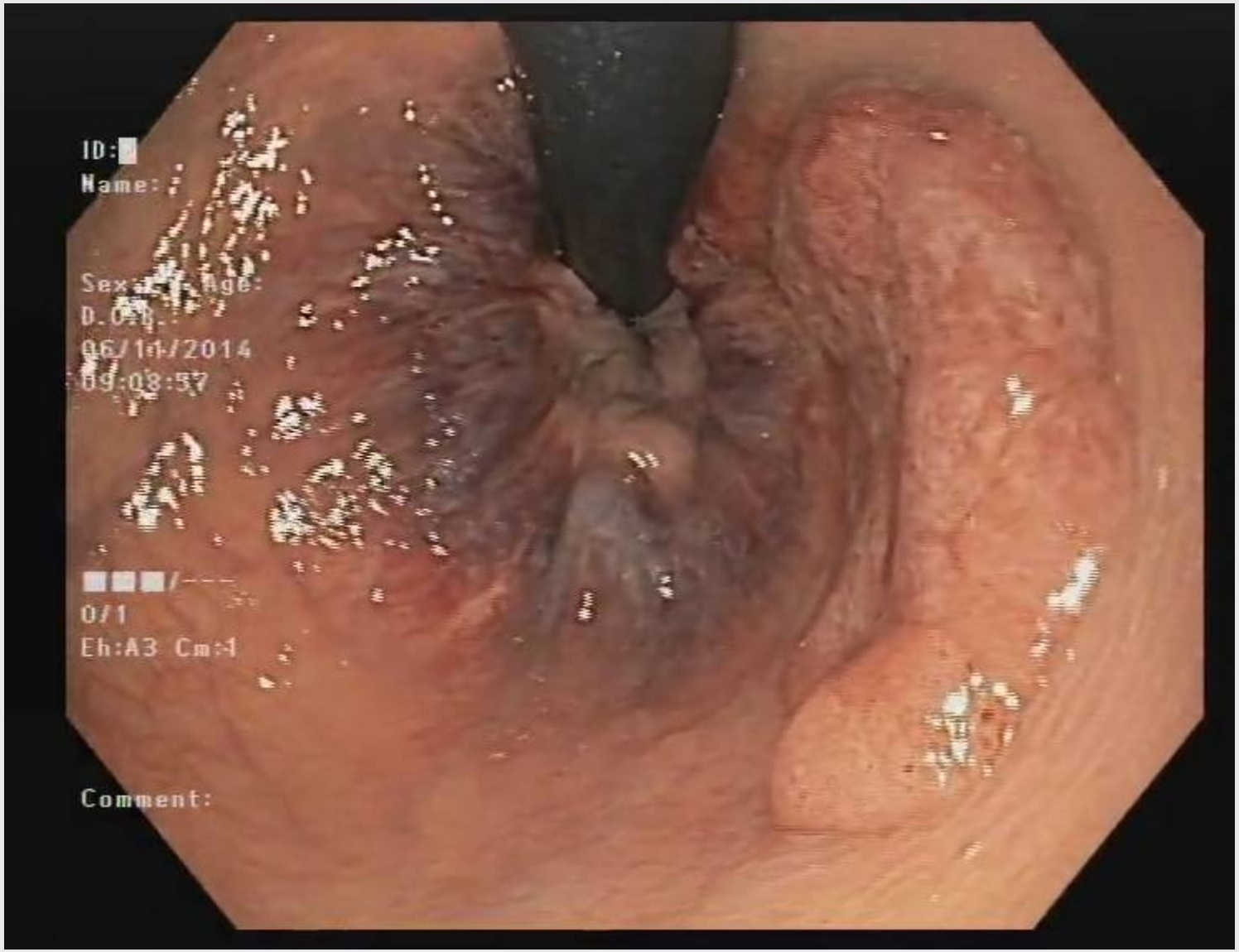
zoom 0,624 - W/L 128/255 - FOV 2148,1 x 1557,0 cm



F, 53 a, retto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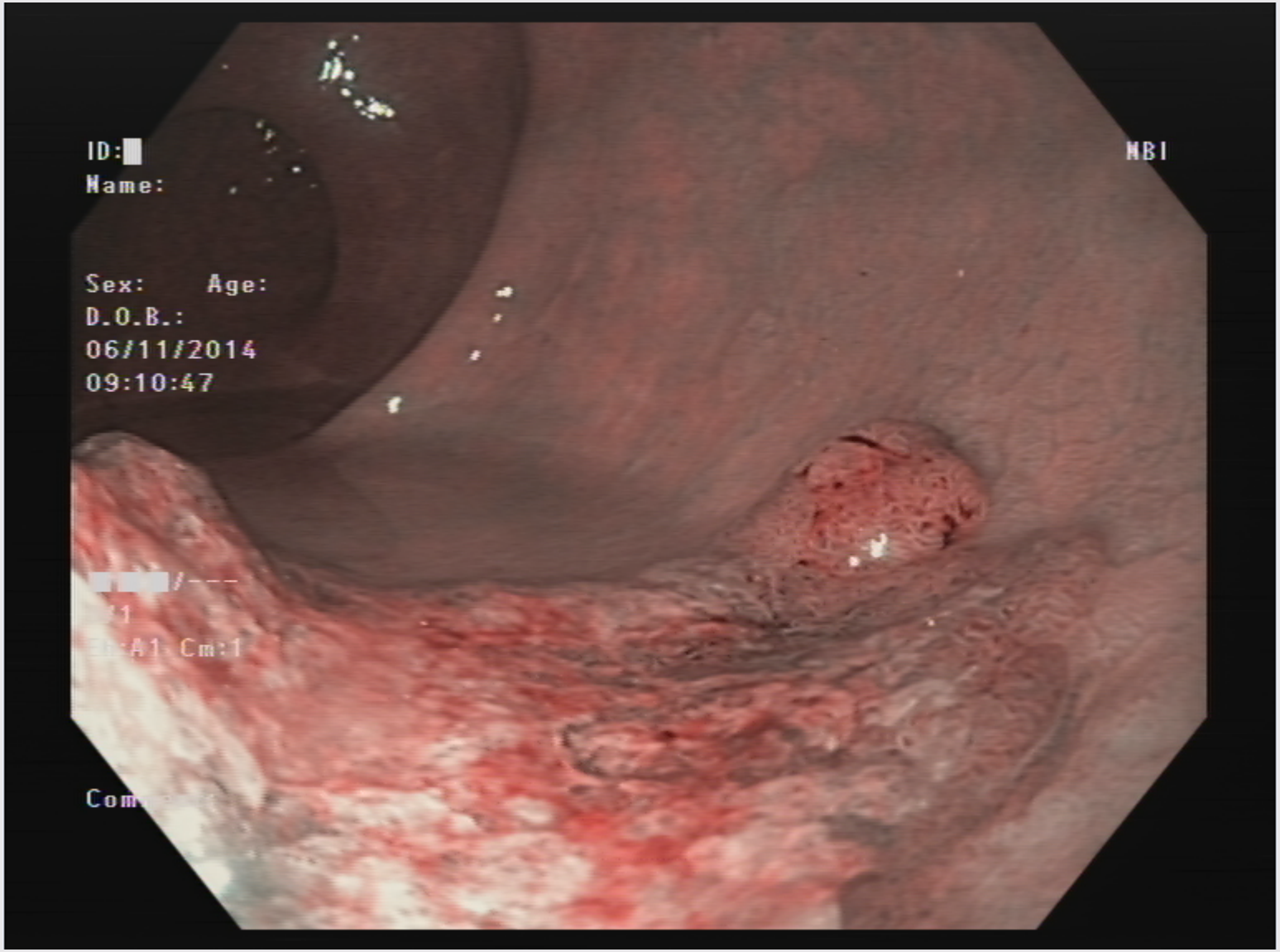
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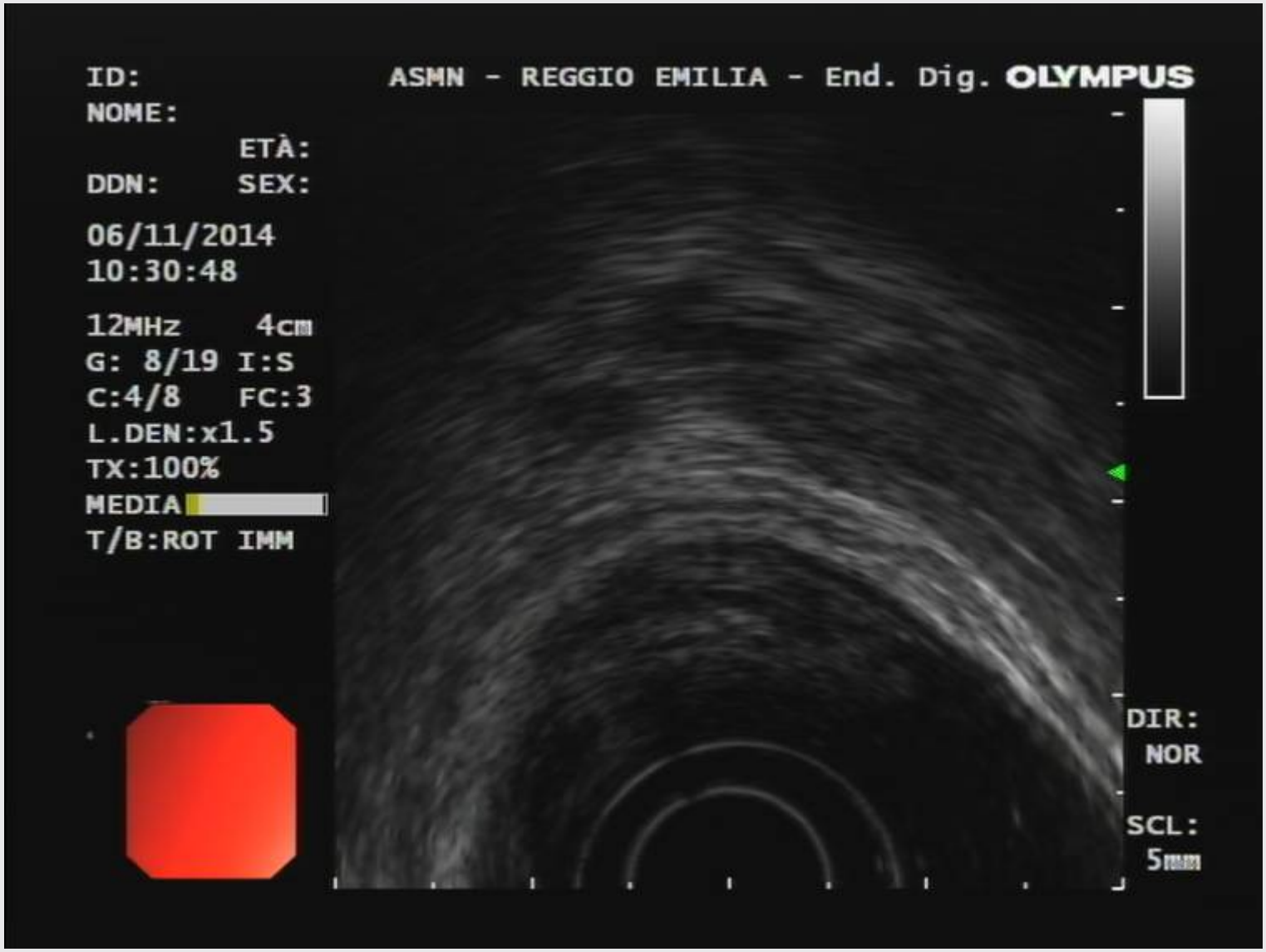
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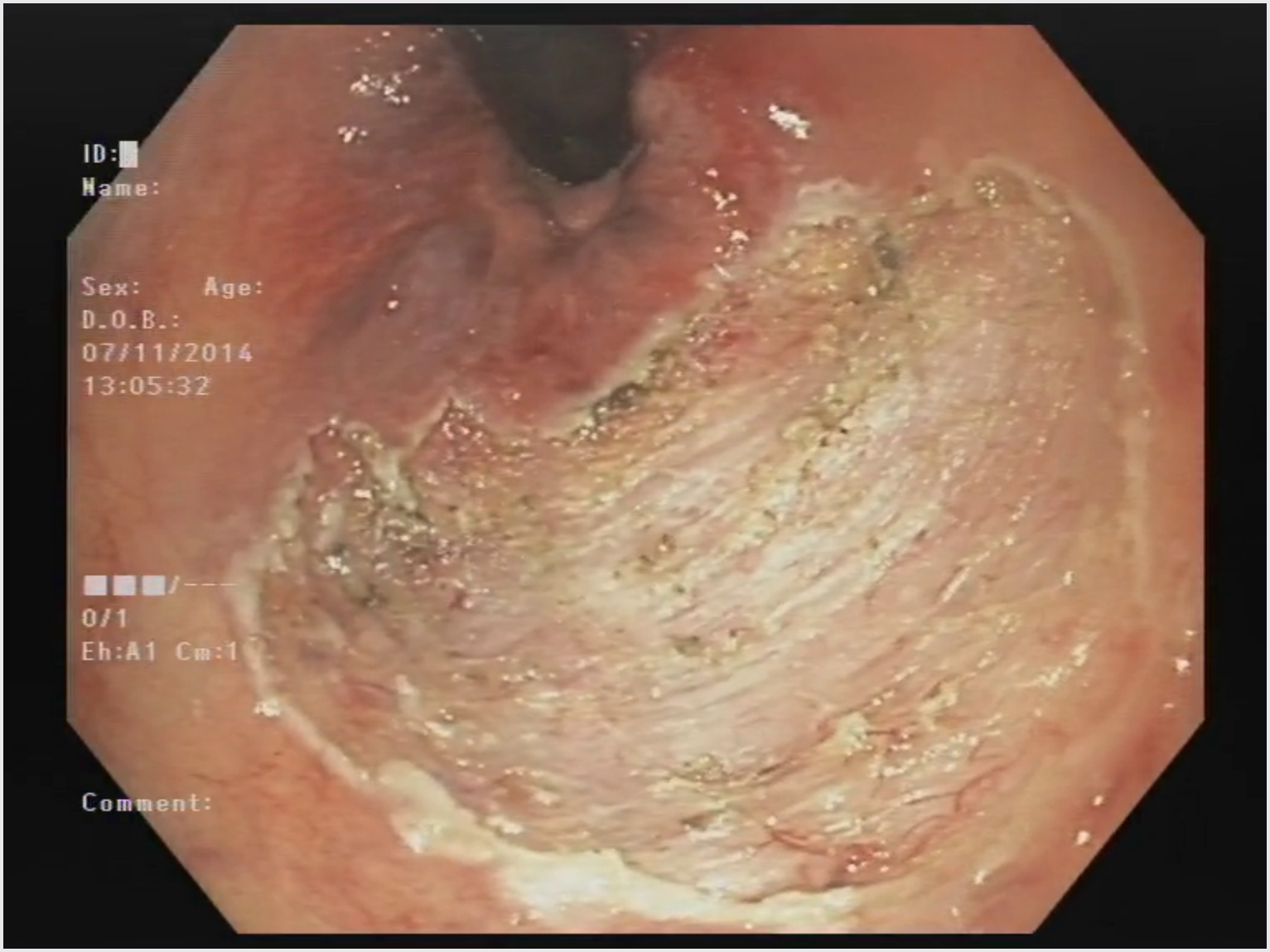
L.DEN:x1.5
TX:100%
MEDIA
T/B:ROT IMM
ASMN - REGGIO EMILIA - End. Dig. OLYMPUS
DIR:
NOR
SCL:
5mm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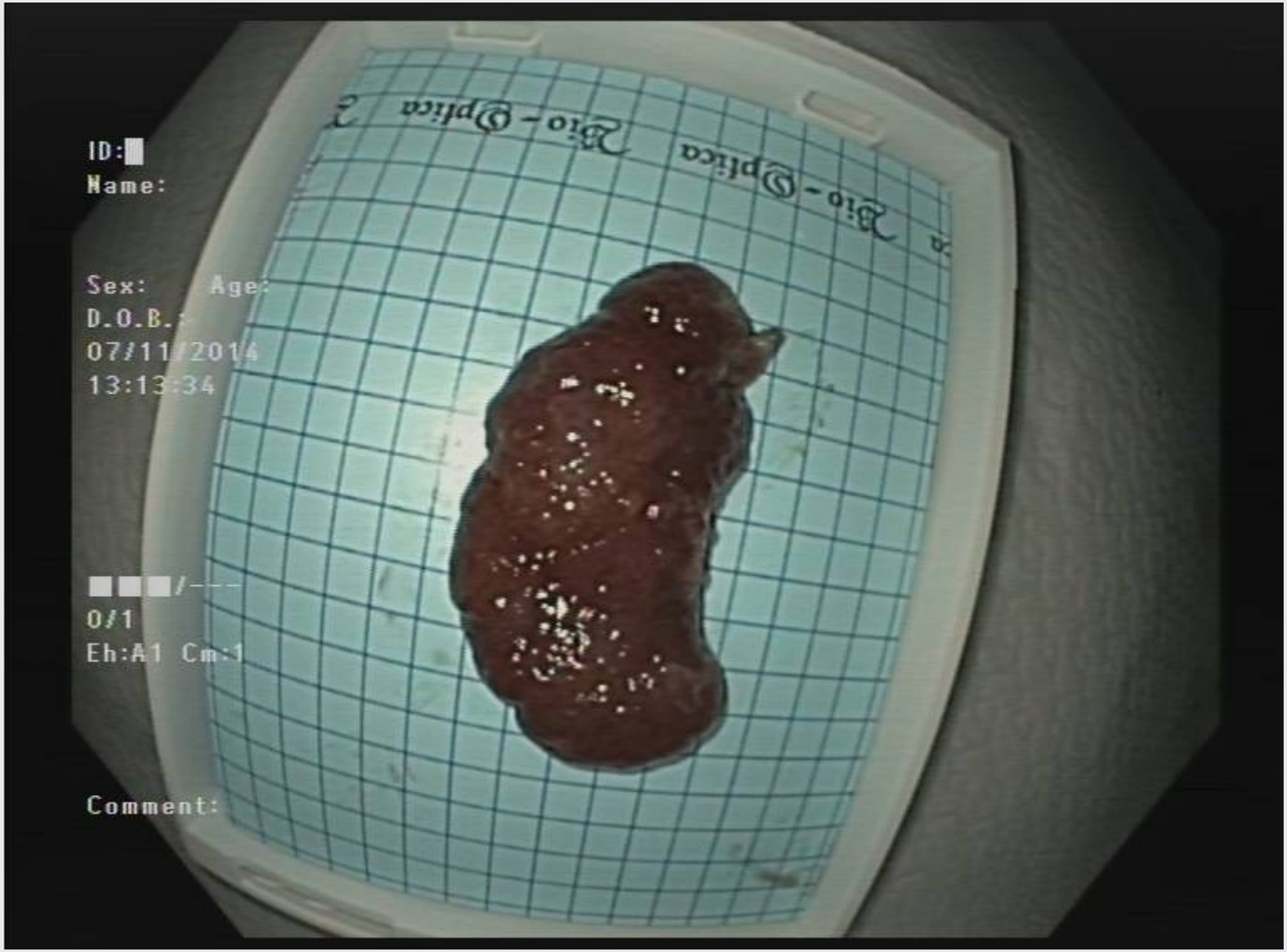
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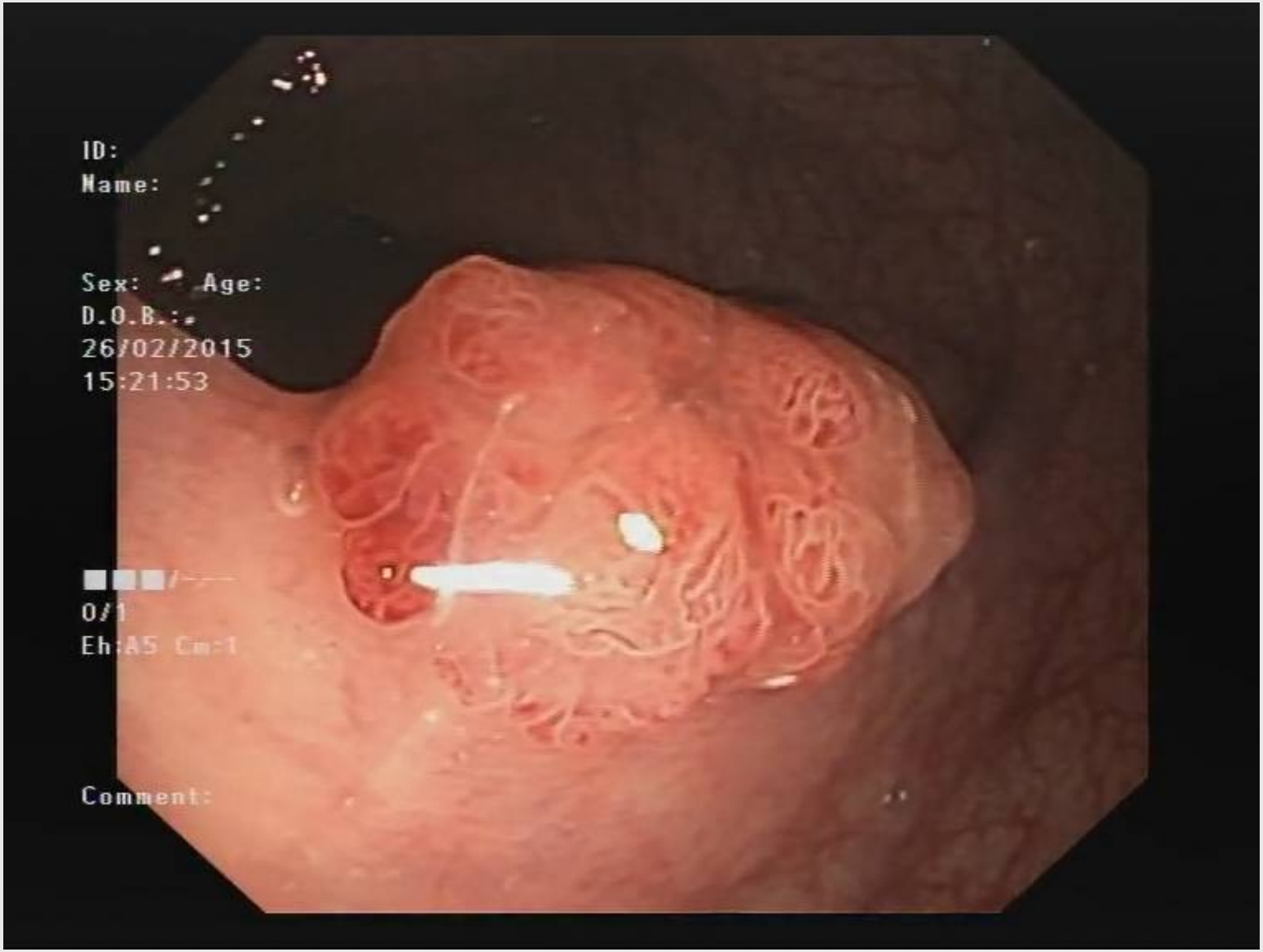
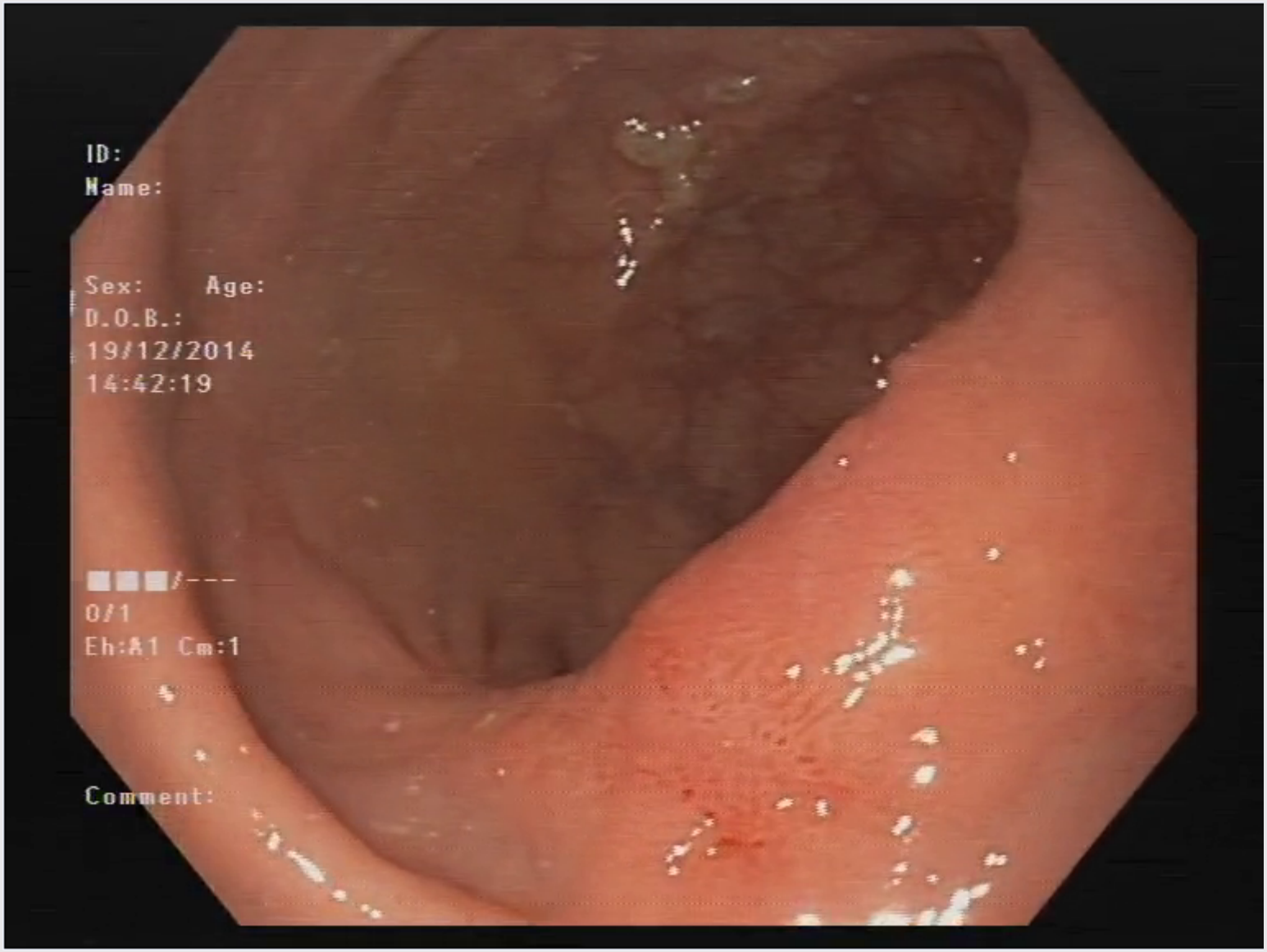
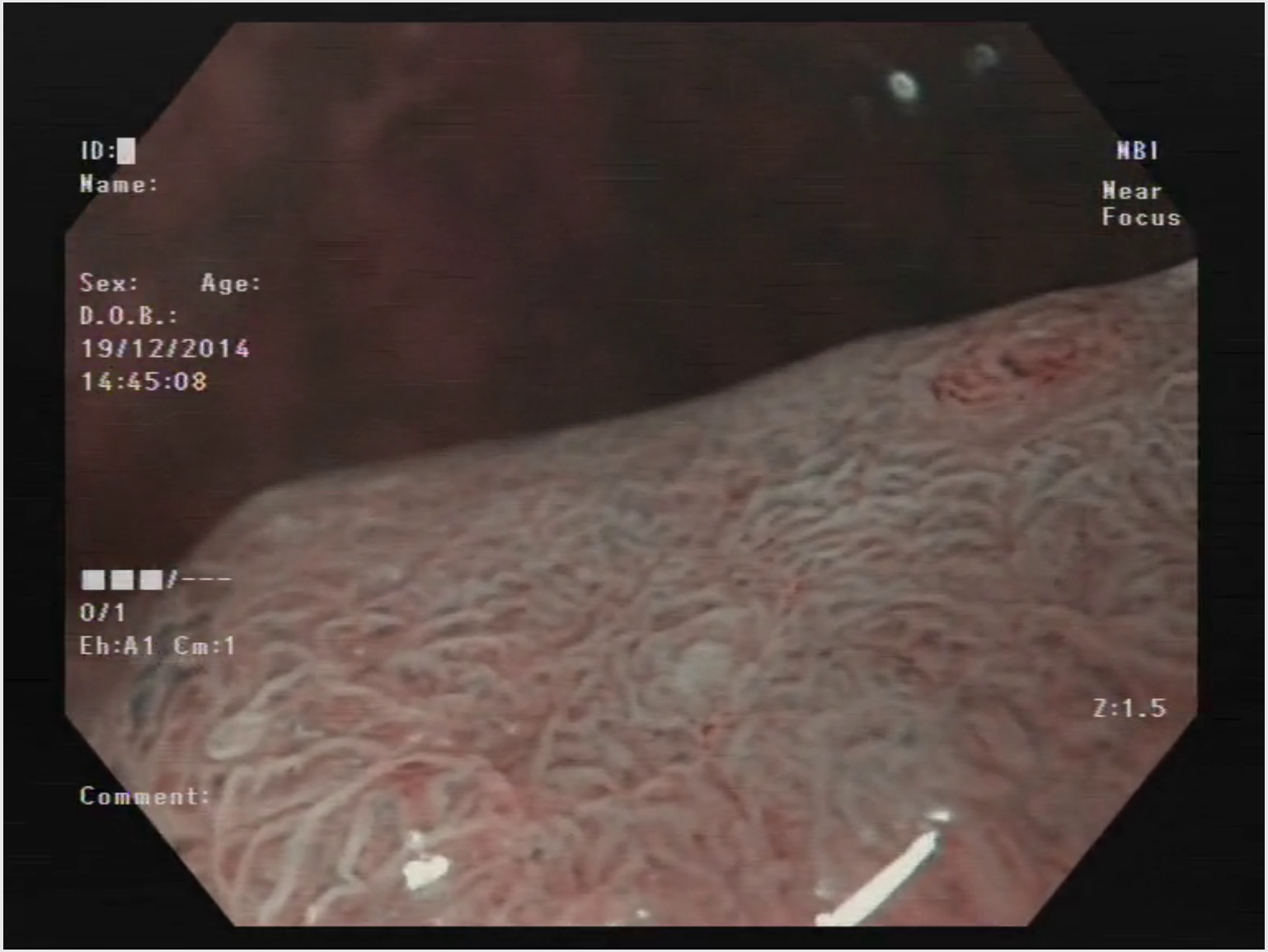


F , 71 a, retto



M , 76 a , retto , pregresse asportazioni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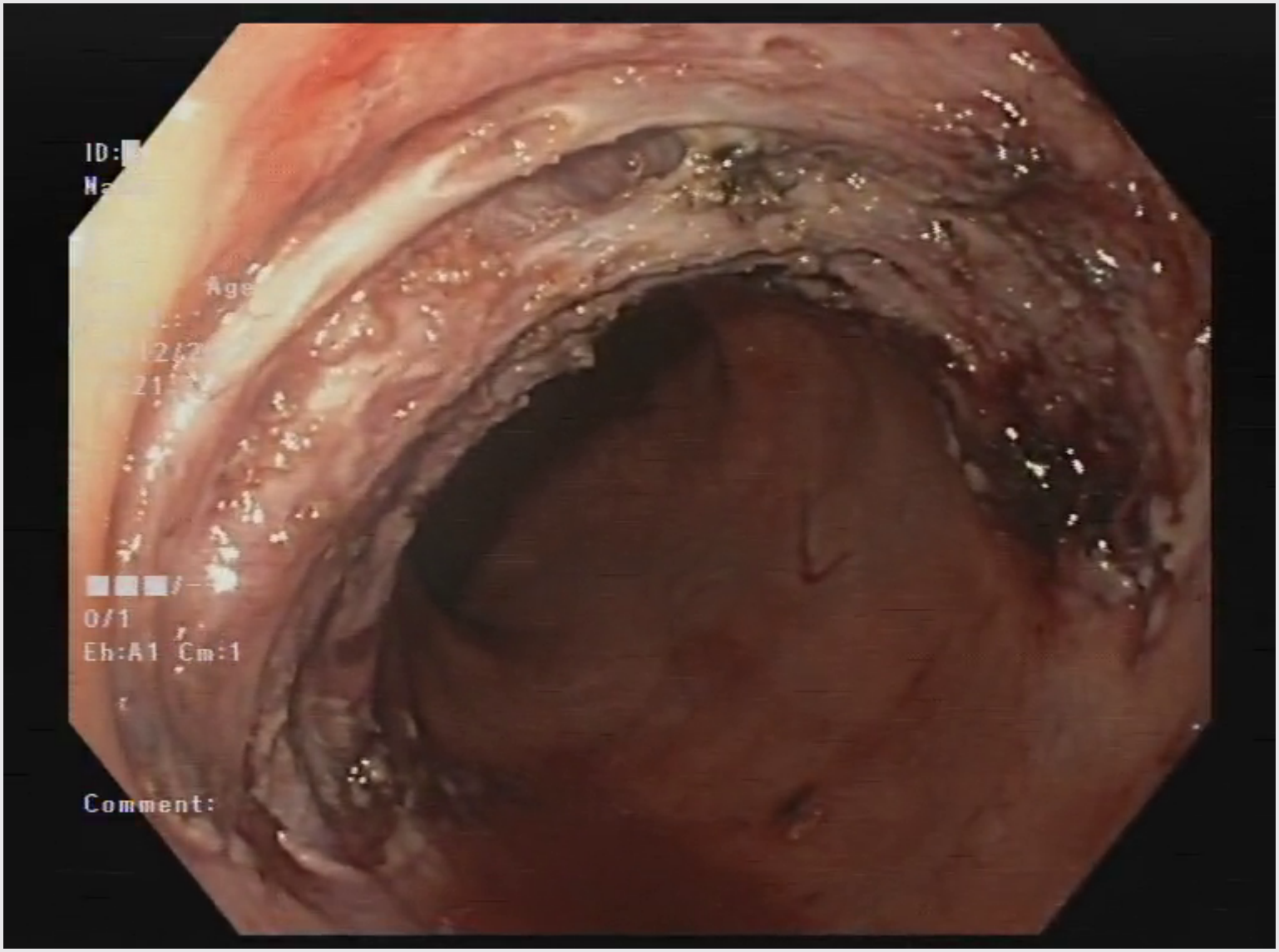
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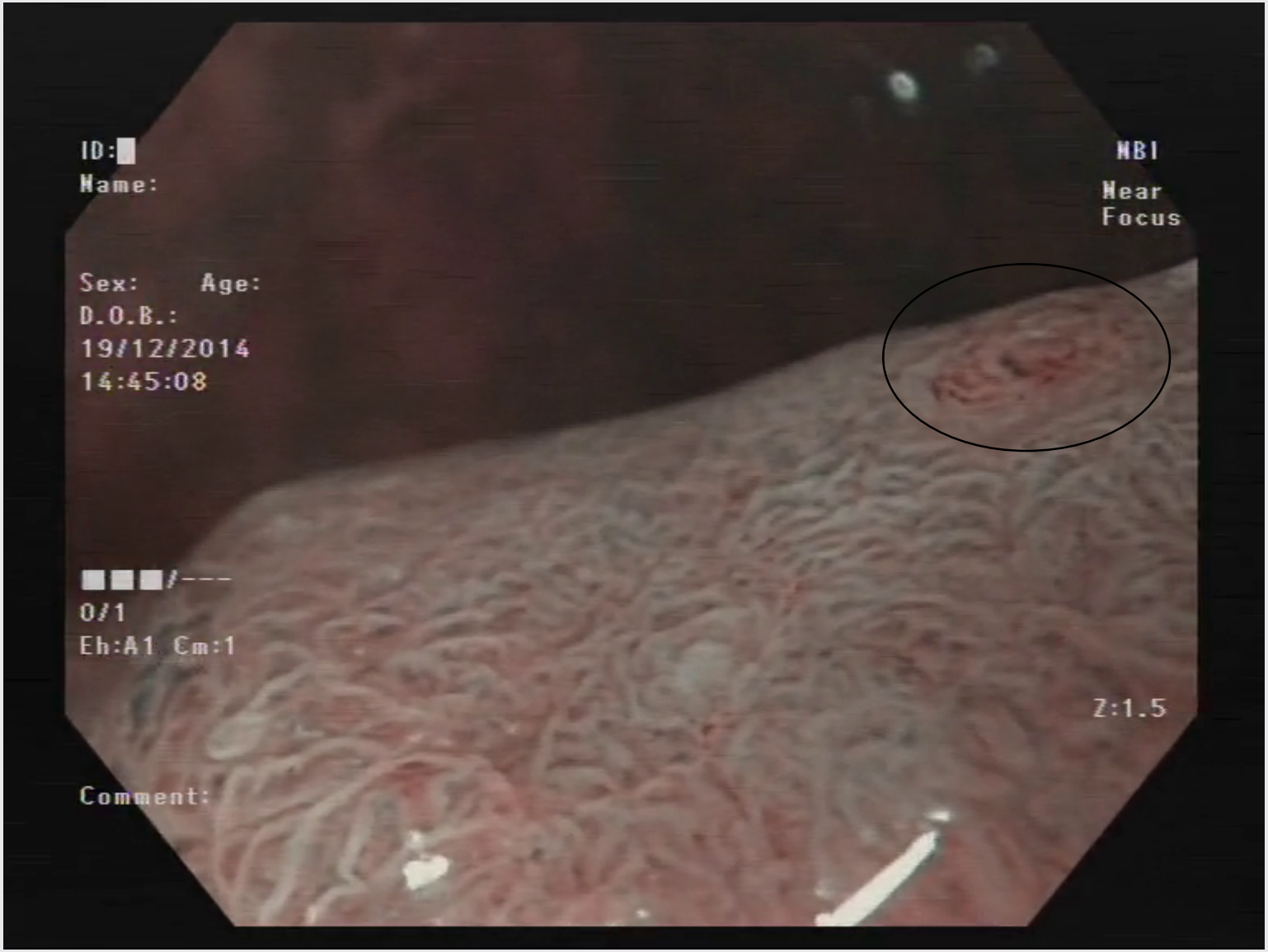
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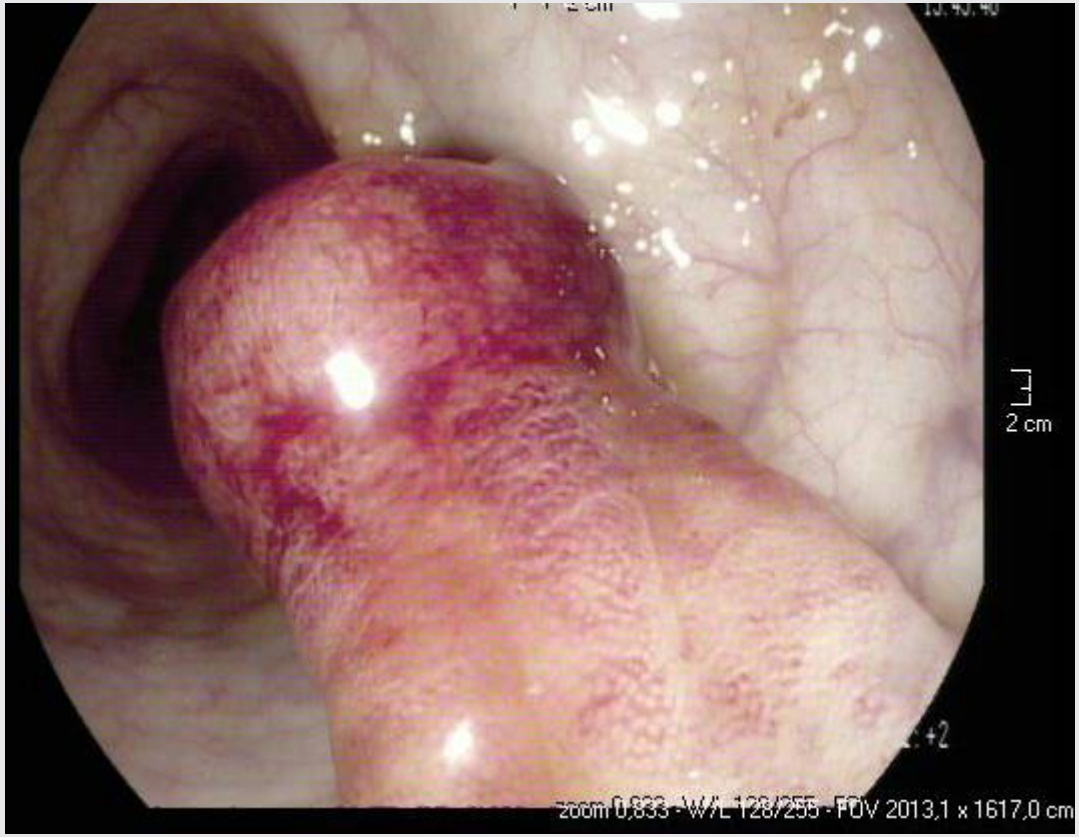
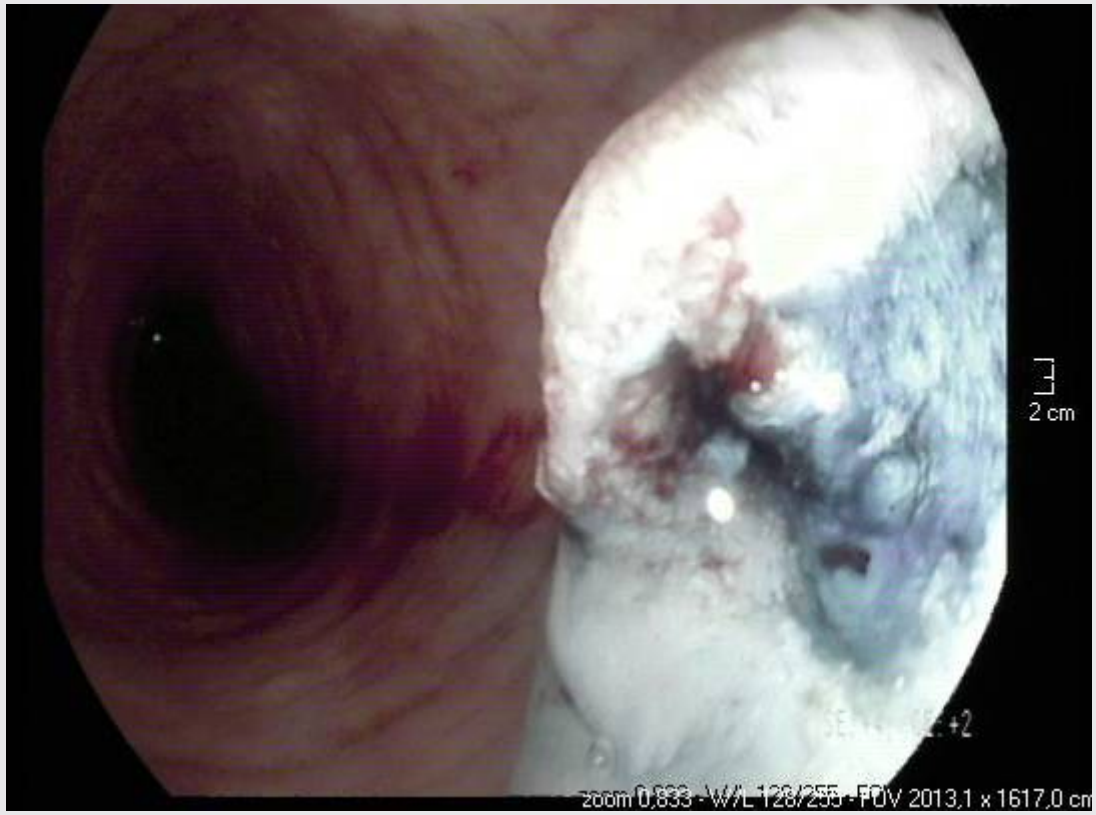


M, 50 a, retto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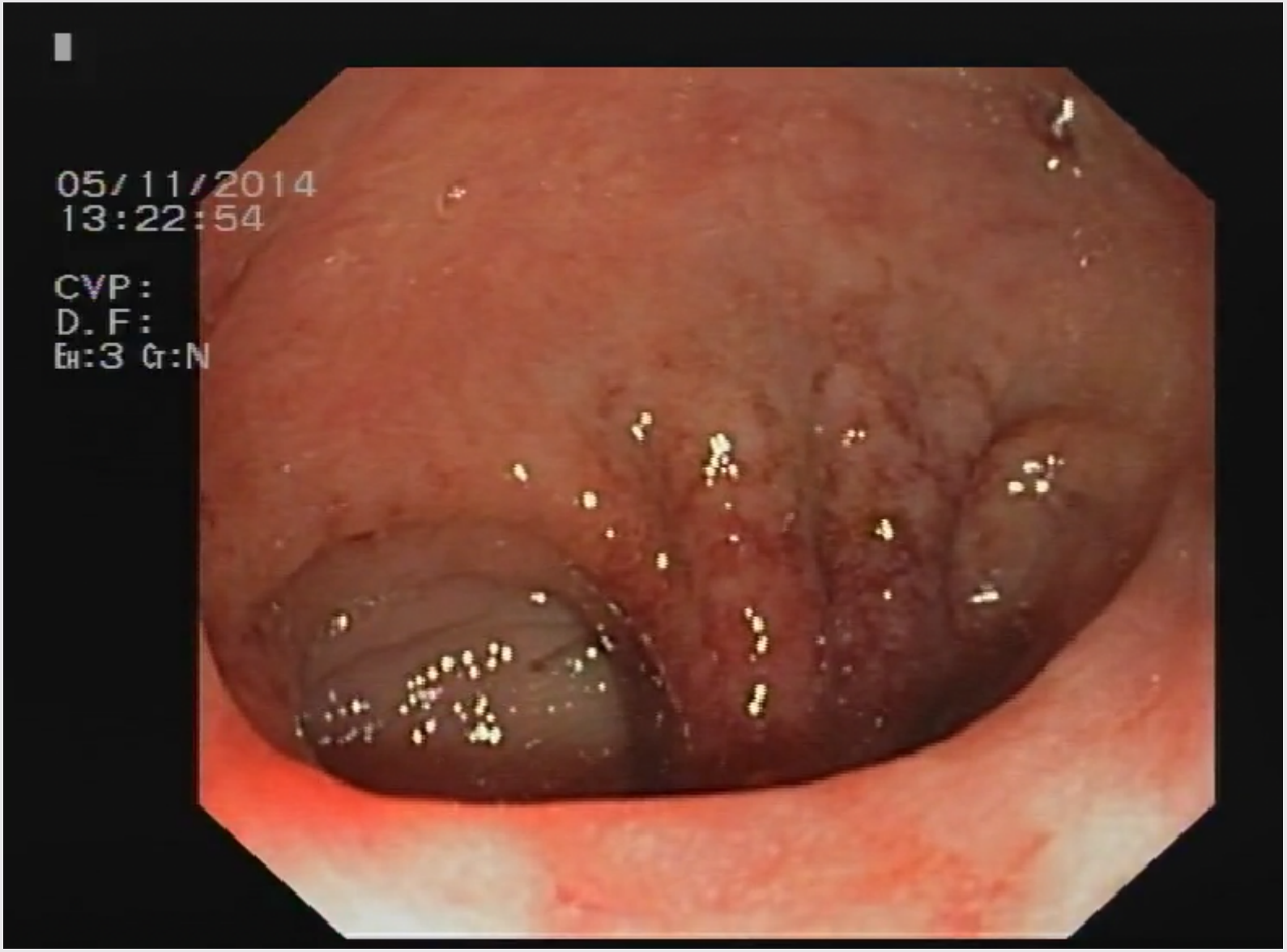
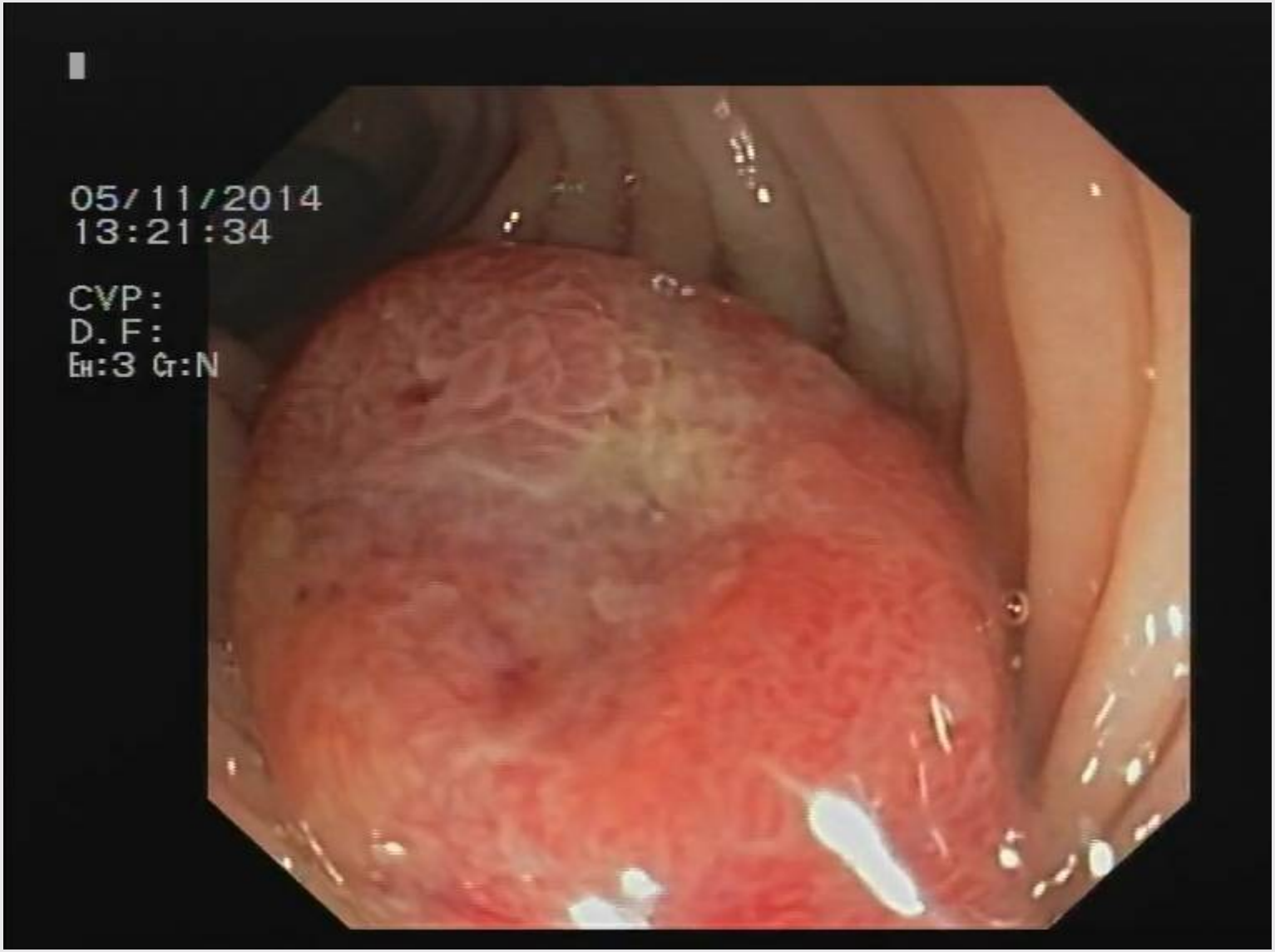


M, 56 a, sigma (tortuoso)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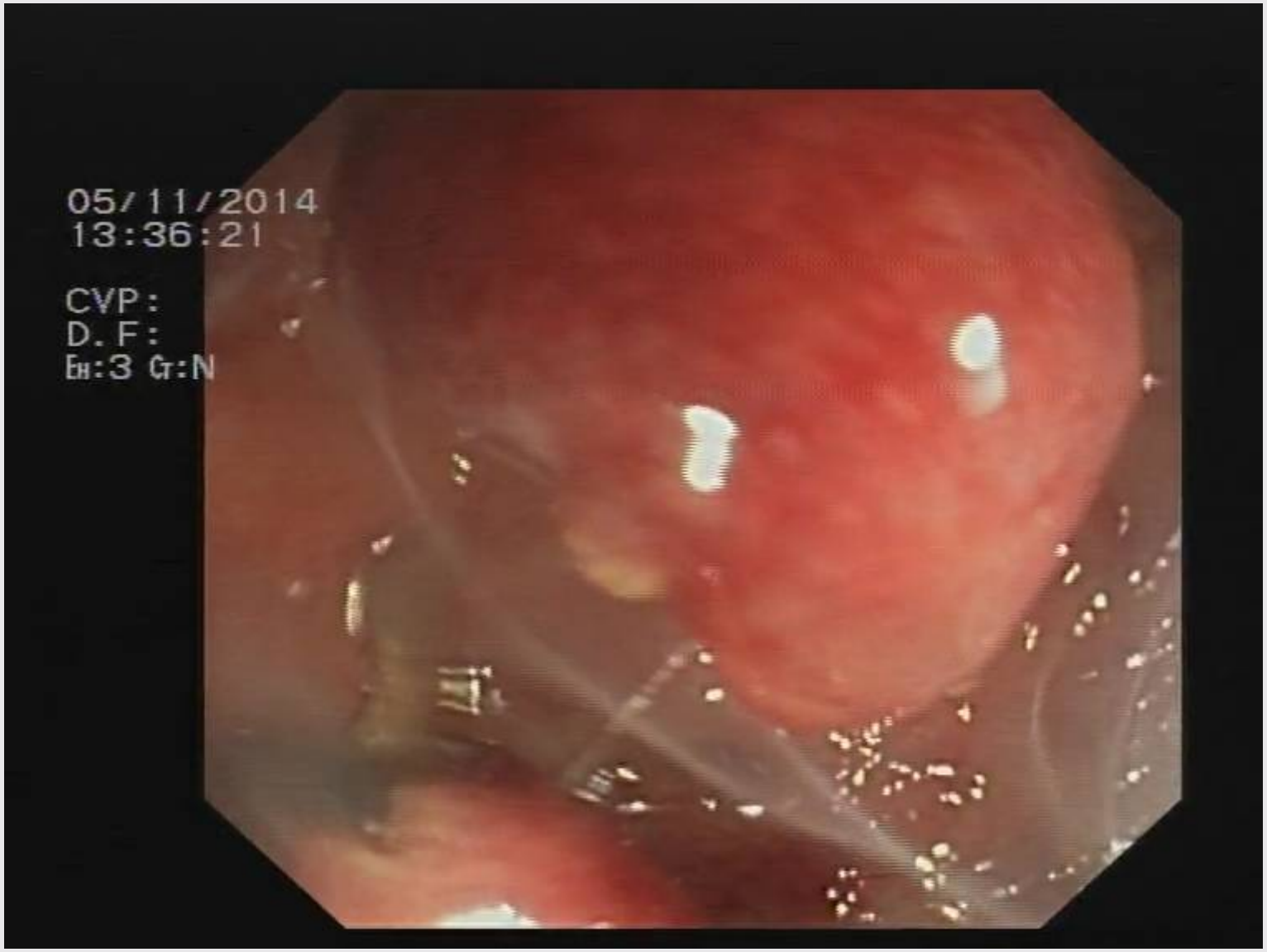
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