Patient Name: Young, Alexander Thomas Ian Strudwick **Patient**
Age: **37 yrs**

Case #:
Sex: **Male**

Surgical Pathology Report (Final result)

Authorizing Provider:	Anand, Sidharth R., MD, MBA	Ordering Provider:	Anand, Sidharth R., MD, MBA
Ordering Location:	RONALD REAGAN CLINICAL LAB	Collected:	04/28/2026 1247
Pathologist:	Goldstein, Jeffrey D., MD	Received:	04/28/2026 1248

CLINICAL INFORMATION
Case has been re-accessioned to report the results of additional immunohistochemistry stains requested by Dr. Anand to be performed on a previously collected surgical specimen. Refer to original case

FINAL DIAGNOSIS
Refer to original case

MICROSCOPIC DESCRIPTION
Refer to original case

IHC REPORT

HER2 IHC TESTING FOR COLORECTAL ADENOCARCINOMA

BLOCK:
FIXATIVE: Formalin

HER2 (HERACLES CRITERIA):
Negative (0)

METHOD
US Food and Drug Administration (FDA) cleared: Dako HercepTest™

INTERPRETATION (MODIFIED FROM HERACLES CRITERIA)[a]

Staining	Pattern	Interpretation	FISH
No staining (0)	-	Negative	No
Faint staining (1+), any cellularity	Any	Negative	No
Moderate (2+), <50% cells	Any	Negative	No
Moderate (2+), ≥50% cells	Circumferential, basolateral, or lateral	Equivocal	Yes

Intense (3+), ≤10% cells	Circumferential, basolateral, or lateral	Negative	No
Intense (3+), >10% <50% cells	Circumferential, basolateral, or lateral	Equivocal[b]	Yes
Intense (3+), ≥50% cells	Circumferential, basolateral, or lateral	Positive	No[c]

[a] Valtorta E, et al. Assessment of a HER2 scoring system for colorectal cancer: results from a validation study. Mod Pathol. 2015;28(11):1481-91.

[b] This was interpreted as “positive” in the above publication, but could be confusing because FISH is required for this category. It is better to interpret it as “equivocal”.

[c] In the above publication, FISH is not mandatory for this category, but recommended for research purposes.

GROSS DESCRIPTION
Refer to original case

Signatures
I certify that I personally conducted a gross and/or microscopic examination(s) of the described specimen(s), and have reviewed the interpretation of this test and diagnosis(es). I agree with the documented findings or edited the findings as necessary.

Electronically signed by Goldstein, Jeffrey D., MD on 4/29/2026 at 1021 PDT

Specimens
A Consult Review,

Related Orders

Surgical Pathology Report (Final result)

Authorizing Provider:	Kazanjian, Kevork K., MD	Ordering Provider:	Kazanjian, Kevork K., MD
Ordering Location:	RR Perioperative Area	Collected:	10/22/2024 1307
Pathologist:	Goldstein, Jeffrey D., MD	Received:	10/23/2024 0809

CLINICAL INFORMATION
Rectal adenocarcinoma, moderately-differentiated with liver metastases treated with neoadjuvant chemoradiotherapy
MR (10/12)- 3.5 cm semicircumferential, located in upper rectum above and below peritoneal reflection, 10.8 cm from anal verge, residual T2 scar tissue

FINAL DIAGNOSIS

A. COLON, ANASTOMOSIS DONUT (EXCISION):
- Sections of colon with no histopathologic abnormality

B. RECTUM (LOW ANTERIOR RESECTION):
- Residual colorectal adenocarcinoma, moderately-differentiated

- Much of the tumor at this time shows mucinous features with mucin pools, many of which are acellular, but others contain viable carcinoma cells
- Metastatic adenocarcinoma in one of twelve lymph nodes (1/12); one additional lymph node shows a localized scar, consistent with regressed tumor
- Multiple extranodal tumor deposits with mucinous features and focal dystrophic calcification
- No residual tubulovillous adenoma identified
- See synoptic report for additional information

C. LIVER, LEFT LATERAL SEGMENT (SEGMENTECTOMY):
- Metastatic colorectal adenocarcinoma with mucinous features
- Background liver with no histopathologic abnormality
- Margins negative for malignancy

COMMENT:
DNA mismatch repair protein immunohistochemistry performed on the prior biopsy specimen showed intact nuclear expression for all four proteins. Repeat studies are deferred at this time.

MICROSCOPIC DESCRIPTION
A microscopic examination has been performed.

SYNOPTIC CHECKLIST
COLON AND RECTUM: Resection (COLON AND RECTUM: RESECTION - All Specimens) 8th Edition - Protocol posted: 6/19/2024

SPECIMEN	
Procedure	Low anterior resection
Macroscopic Evaluation of Mesorectum	Complete
TUMOR	
Tumor Site	Rectum
Rectal Tumor Location	Straddles anterior peritoneal reflection
Histologic Type	Adenocarcinoma
Histologic Type Comment	Extensive mucinous features following neoadjuvant therapy (not apparent in pre-therapy biopsy)
Histologic Grade	G2, moderately differentiated
Tumor Size	Greatest dimension (Centimeters): 3.0 cm
Tumor Extent	Invades through muscularis propria into the pericolonic or perirectal tissue
Macroscopic Tumor Perforation	Not identified
Lymphatic and / or Vascular Invasion	Large vessel (venous), extramural
Perineural Invasion	Present
Tumor Budding Score	Cannot be determined: Post neoadjuvant chemotherapy
Type of Polyp in which Invasive Carcinoma Arose	Tubulovillous adenoma
Treatment Effect	Present, with residual cancer showing evident tumor regression, but more than single cells or rare small groups of cancer cells (partial response, score 2)
MARGINS	

Margin Status for Invasive Carcinoma	All margins negative for invasive carcinoma
Closest Margin(s) to Invasive Carcinoma	Radial (circumferential)
Distance from Invasive Carcinoma to Closest Margin	0.2 cm
Distance from Invasive Carcinoma to Radial (Circumferential) Margin	Distance already reported as closest margin
Distance from Invasive Carcinoma to Distal Margin	2.2 cm
Margin Status for Non-Invasive Tumor	All margins negative for high-grade dysplasia / intramucosal carcinoma and low-grade dysplasia

REGIONAL LYMPH NODES	
Regional Lymph Node Status	Tumor present in regional lymph node(s)
Number of Lymph Nodes with Tumor	1
Number of Lymph Nodes Examined	12
Tumor Deposits	Present
Number of Tumor Deposits	Cannot be determined: numerous

DISTANT METASTASIS	
Distant Site(s) Involved	Liver

pTNM CLASSIFICATION (AJCC 8th Edition)

Reporting of pT, pN, and (when applicable) pM categories is based on information available to the pathologist at the time the report is issued. As per the AJCC (Chapter 1, 8th Ed.) it is the managing physician's responsibility to establish the final pathologic stage based upon all pertinent information, including but potentially not limited to this pathology report.

Modified Classification	y
pT Category	pT3
pN Category	pN1a
pM Category	pM1a

ADDITIONAL FINDINGS	
Additional Findings	None identified

GROSS DESCRIPTION

The specimen is received fresh and subsequently placed in formalin in three containers, each labeled with the patient's name (Young, Alexander), medical record number and associated designations.

Part A, designated “COLON ANASTOMOSIS DONUT”. It consists of two annular fragments of bowel measuring 1.2 cm in length x 1.7 cm in diameter and 0.8 cm in length x 1.5 cm in diameter. The serosa is tan-pink-brown, smooth and unremarkable. The specimen is sectioned to reveal a tan-brown smooth and unremarkable cut surface with a 0.2 cm average wall thickness. No lesions or abnormalities are grossly identified. Representative sections are submitted in cassette A1.

Part B, designated “RECTUM”. It consists of an intact low anterior resection. Specimen is oriented based off of anatomical landmarks. The specimen measures 25.4 cm in length and ranges from 5.7-7.5 cm in open circumference. The attached fibroadipose tissue extends up to 3.4 cm from the bowel wall.

The serosal surface is tan-pink-purple, smooth and grossly unremarkable. The mucosa of the rectum is remarkable for a pale tan-yellow-white, firm, indurated and focally hyperemic lesion measuring 3.0 x 2.2 x 0.1 cm that is located along the right posterolateral aspect of the specimen. The lesion involves approximately 40% of the circumference of the bowel. The center of the lesion is located at the anterior peritoneal reflection and extends both proximally and distally. Sectioning of the lesion reveals a tan-yellow-white smooth and firm cut surface. The lesion grossly appears within the submucosa and

extends into the muscularis propria. The lesion measures 20.1 cm from the proximal margin, 2.2 cm from the distal margin, 1.6 cm from the radial margin, and 1.7 cm from the serosal surface

The remainder of the bowel mucosa is tan-brown, glistening and grossly unremarkable with normal colonic folds. The bowel wall thickness ranges from 0.2-1.0 cm. After removing the pericolic/perirectal adipose tissue, it is thoroughly examined for lymph nodes. 19 possible lymph nodes lymph nodes are identified, ranging from 0.3-1.9 cm in greatest dimension.

All identified suspected lymph nodes are entirely submitted. The lesion is entirely submitted. Gross photographs are taken. Representative sections of the remaining specimen are submitted.

INK KEY:
Black Mesenteric/radial margin overlying lesion
Blue Serosa overlying lesion

CASSETTE SUMMARY:

B1-B2	Distal margin, shave
B3	Proximal margin, shave
B4-B5	Two full cross sections of lesion with closest approach to serosa
B6-B7	Full cross section of lesion in relation to uninvolved mucosa and radial margin
B8-B9	Full cross section of lesion in relation to uninvolved mucosa and radial margin
B10-B11	Full cross section of lesion in relation to uninvolved mucosa and radial margin
B12-B13	Full cross section of lesion in relation to uninvolved mucosa and radial margin
B14-B15	Full cross section of lesion in relation to uninvolved mucosa and radial margin
B16-B17	Full cross section of lesion in relation to uninvolved mucosa and radial margin
B18	Representative uninvolved mucosa
B19	One possible lymph node, serially sectioned
B20	One possible lymph node, serially sectioned
B21	One possible lymph node, serially sectioned
B22	One possible lymph node, serially sectioned
B23	One possible lymph node, serially sectioned
B24	One possible lymph node, bisected
B25	One possible lymph node, bisected
B26	Two possible lymph nodes, intact
B27	Two possible lymph nodes, intact
B28	Three possible lymph nodes, intact
B29	Five possible lymph nodes, intact
B30-39	Additional fat

Part C, designated “Left Lateral Liver Segment”. It consists of a left lateral segmentectomy weighing 257 grams, measuring 10.2 (medial-lateral) x 14.7 (superior-inferior) x 5.2 (anterior-posterior). The capsule is tan-brown-purple and smooth. The hepatic resection surface measures 11.4 x 6.2 cm.

The specimen is serially sectioned to reveal one nodule.

Mass/nodule #: #1
Location: Segment three
Necrosis: Not identifiable
Description: 1.9 x 1.9 x 1.4 cm pale tan-yellow-gray, irregular and semi firm nodule
Distance from capsule: Abuts
Distance to nearest margin: 0.4 cm from parenchymal resection margin
Vascular invasion: Not identified

The remaining parenchyma is tan-red-brown, smooth and unremarkable

Representative sections are submitted. Gross photographs are taken.

INK KEY:
Black parenchymal resection margin
Blue capsule overlying tumor

CASSETTE SUMMARY:

C1	Uninvolved liver parenchyma
C2	Presumed left hepatic vein margin
C3	Presumed vessel of portal hepatis
C4	Full cross section of nodule in relation to capsule and uninvolved liver parenchyma
C5	Representative section of nodule with closest approach to parenchymal margin

AN 10/24/2024

Signatures

I certify that I personally conducted a gross and/or microscopic examination(s) of the described specimen(s), and have reviewed the interpretation of this test and diagnosis(es). I agree with the documented findings or edited the findings as necessary.

Electronically signed by Goldstein, Jeffrey D., MD on 10/28/2024 at 1822 PDT

Specimens

A	Colon, COLON ANASTOMOSIS DONUT	**B**	Rectum, RECTUM
C	Other, Enter source information, Left Lateral Liver Segment		

Resulting Labs

CHS BAP LAB	UCLA MEDICAL CENTER CHS, 10833 LeConte Avenue, Los Angeles CA 90095 Director: Bita V. Naini, M.D.