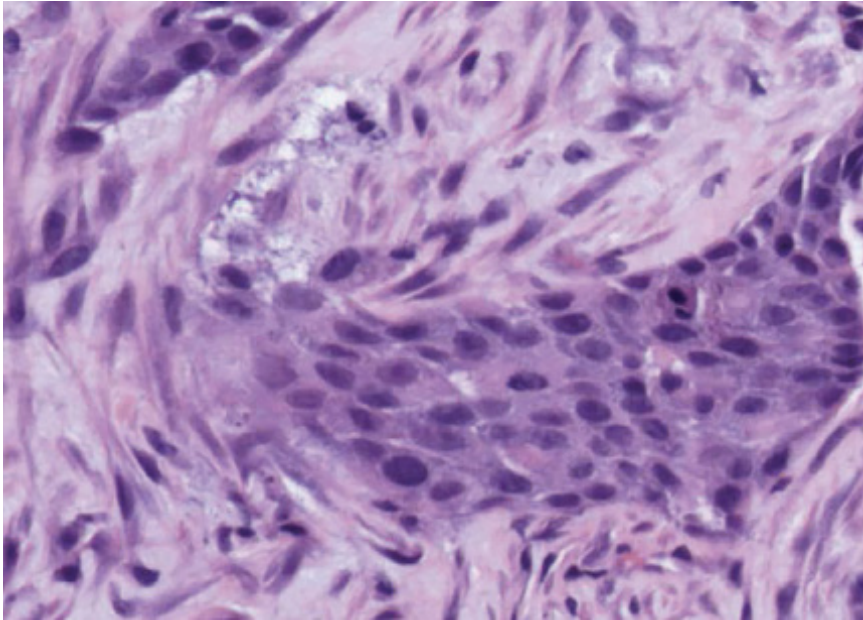


History of Multiple Primary Cancers



Work Up:

CK7	Negative
CK20	Negative
ER	Negative
PR	Negative
CDX2	Positive
K-RAS mutation	Not Present

Patient Case 3:

A 56 year old woman with metastatic cancer to the liver and porta hepatis, 18 years after stage I colon cancer and 2 years after stage II ER positive/HER2 negative poorly differentiated ductal carcinoma of the left breast. She has been monitored by colonoscopy every 5 years since her diagnosis of colon cancer.

Initial Diagnosis:

Moderately differentiated adenocarcinoma consistent with recurrent colon cancer.

Initial Treatment:

- Patient initially treated with capecitabine, oxaplatin, bevacizumab and had stable disease; discontinued due to anaphylactic reaction to oxaplatin.
- Patient was stable for 18 months at which time a CT of the chest, abdomen, and pelvis showed progression in 3 pulmonary nodules and possibly the liver.
- Patient then started on single-agent irinotecan and adjuvant exemestane for breast cancer. CT showed improvement in the liver and porta hepatis lymph nodes but probable progression in the pulmonary nodules.

Clinical Dilemma:

Is this metastatic colon cancer, metastatic breast cancer, or a new malignancy?

Tissue of Origin[®] Test Ordered.

Pathologist Interpretation and Tissue of Origin Results:

The Tissue of Origin Test indicates a COLORECTAL ORIGIN in this case with VERY HIGH CONFIDENCE, based on a Similarity Score of 88.9. The Tissue of Origin Test has effectively ruled out a derivation from the 14 other tissue types with scores ranging from 3.3 to 0.1. Similarity Scores below 5 indicate a greater than 99% probability of that tissue type not being the correct tissue of origin.

Tissue	Similarity Score	Low 0-5	High 100
Colorectal	88.9		◆
Breast	3.3	◆	
Ovarian	2.3	◆	
Gastric	1.5	◆	
Pancreas	0.9	◆	
Non-Small Cell Lung	0.7	◆	
Kidney	0.7	◆	
Sarcoma	0.6	◆	
Bladder	0.3	◆	
Non-Hodgkin's Lymphoma	0.2	◆	
Prostate	0.2	◆	
Hepatocellular	0.1	◆	
Melanoma	0.1	◆	
Thyroid	0.1	◆	
Testicular Germ Cell	0.1	◆	

Post Tissue of Origin[®] Test Treatment:

- The Tissue of Origin[®] results confirmed the recurrence of colon cancer, 18 years after the initial diagnosis, and ruled out breast or another primary.
- Continue with irinotecan for 2-3 more months and follow up with CT scan of chest, abdomen, and pelvis.