CASE REPORT

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# An Incidental Rectal Wall Bulging Lesion in a Patient with a History of Resected Ovarian Tumor

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**ABSTRACT** Tumor dormancy is an important factor for tumor cells' hiding and protection from the effects of chemotherapy which results in recurrence long time after the operation. We report a 16 year ago resected ovarian carcinoma case under oncologic surveillance who had a rectal wall bulging lesion in her recent radiologic control. The sigmoidscopy and the endoscopic ultrasound (EUS) revealed a rectal subepithelial lesion with the typical appearance of a gastrointestinal stromal tumor (GIST). But the EUS guided fine needle aspiration (FNA) revealed an adenocarcinoma metastasis. So she underwent segmental bowel resection and the histopathologic result confirmed the prediagnosis as an early metastasis of a 16 year ago resected papillary serous ovarian adenocarcinoma primary. This subepitelial metastatic deposit was termed as a dormant tumor. Gastrointestinal tract wall dormant tumors are rare but must be considered in patients with a history of a previous malignancy.

**Keywords:** Ovarian cancer; dormant tumor; subepithelial lesion; EUS FNA

Subepithelial tumors are classified according to the layer they are originated. Gastrointestinal stromal tumor (GIST), leiomyoma, glomus tumor, lymphoma and aberrant pancreas may originate from the fourth hypoechoic muscularis propria layer. On the other hand, subepithelial metastatic deposits may be located anywhere between the submucosa and subserosa.[1] Rarely, as in this case, the primary tumor metastasizes to the gastrointestinal tract wall before it is resected. Then awakens decades after the treatment of the primary tumor with a long tumor free survival which is known as tumor dormancy.[2] Herein, we present a dormant tumor case, discovered years later, due to a resected primary epithelial ovarian carcinoma.

## CASE REPORT

A 62 year old woman under oncologic surveillance due to a 16 year ago resected serous papillary ovarian carcinoma was found to have a rectal wall subepithelial lesion (SEL), in cross-sectional imaging which was periodically performed during the surveillance by oncology. Later on, this lesion was considered as a GIST in rectoscopic examination. In linear EUS examination, rectal wall subepithelial mass was 41.5 x 34 mm in size, hypoechoic,

heterogeneous with distinct margins and was found to be originating from the hypoechoic tunica muscularis propria of the rectal ampullary region (Figure 1). The echoendoscopic characteristics of the lesion was resembling GIST as in sigmoidoscopy. To confirm the diagnosis, fine needle aspiration (FNA) biopsy was performed with a 22 G needle (Figure 2).

In immunohistochemical staining of the biopsy material, it was negative for CD 117 and CD 34 from the aspect of GIST and positive for cytokeratin 7 (CK7), estrogen receptors (ER), progesterone receptor (PR) and negative for cytokeratin 20 (CK20) which resulted in histologic diagnosis of adenocarcinoma metastasis to the rectal wall. Then she underwent low anterior resection. The resected specimen mass, located on the right lateral side of rectum was measured 5x3x3.2 cm. The tumor was placed between the submucosa and the subserosa (Figure 3).

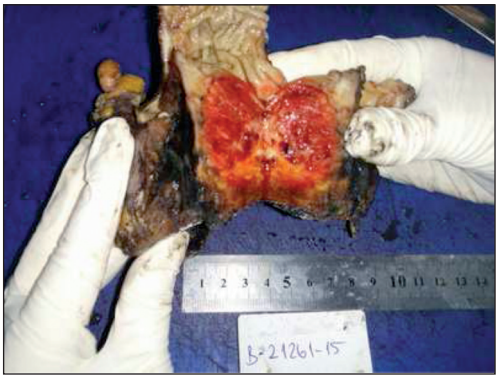

**FIGURE 3:** Cut surface image of the subepitalial dormant rectal wall tumor measuring 5x3x3.2 cm.

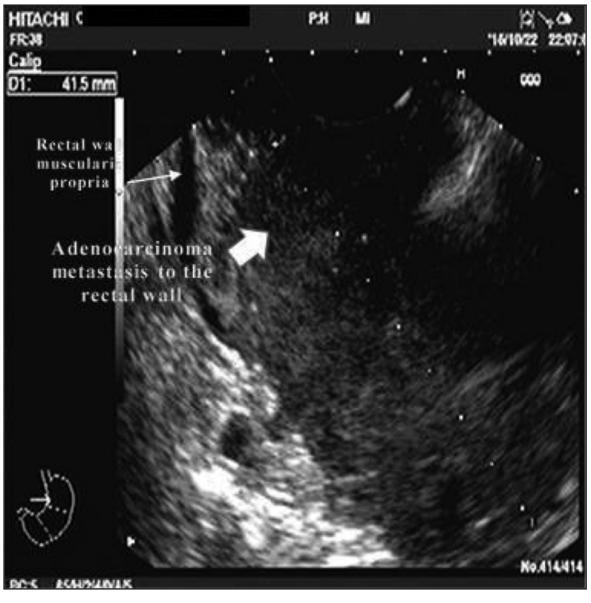


**FIGURE 1:** Endoscopic ultrasound picture of the rectal ampullary subepithelial lesion arising from the hypoechoic fourth layer of the rectal wall.

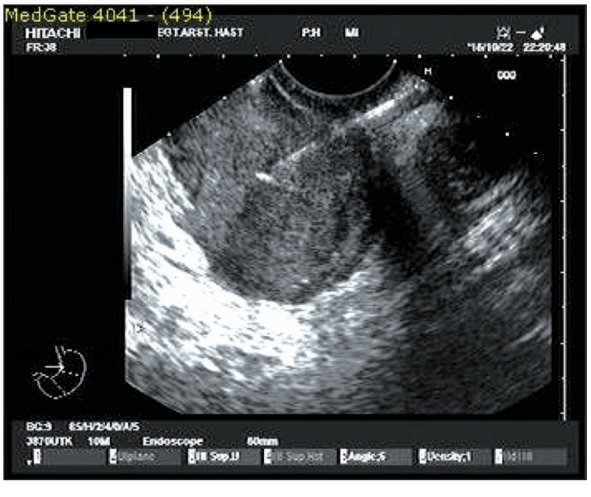


**FIGURE 2:** FNA of the subepithelial lesion with a 22 G needle.

Microscopic evaluation and the immunohistochemical staining (Figure 4) of the resected specimen, confirmed the origin of metastasis.[3] The final diagnosis was the rectal wall metastasis of a well differentiated serous papillary adenocarcinoma of the ovarian primary. Lymphovascular invasion was positive, while there was no perineural invasion. The resected lymph nodes were evaluated as reactive. After the operation, control positron emission tomography evaluation revealed no fluoro deoxy glucose (FDG) positive uptake.

## DISCUSSION

Subepithelial tumors of the gastrointestinal tract wall rarely may be due to the metastasis of the other primary tumors. Serous papillary ovarian carcinoma metastasis to the hypoechoic fourth layer of the gastric wall and the colonic wall as late hematogenous metastasis were presented as case reports.[4-8] The present case demonstrates the rectal wall metastasis of a well differentiated epithelial ovarian tumor resected more than a decade ago. Tumor dormancy represents an important mecha-

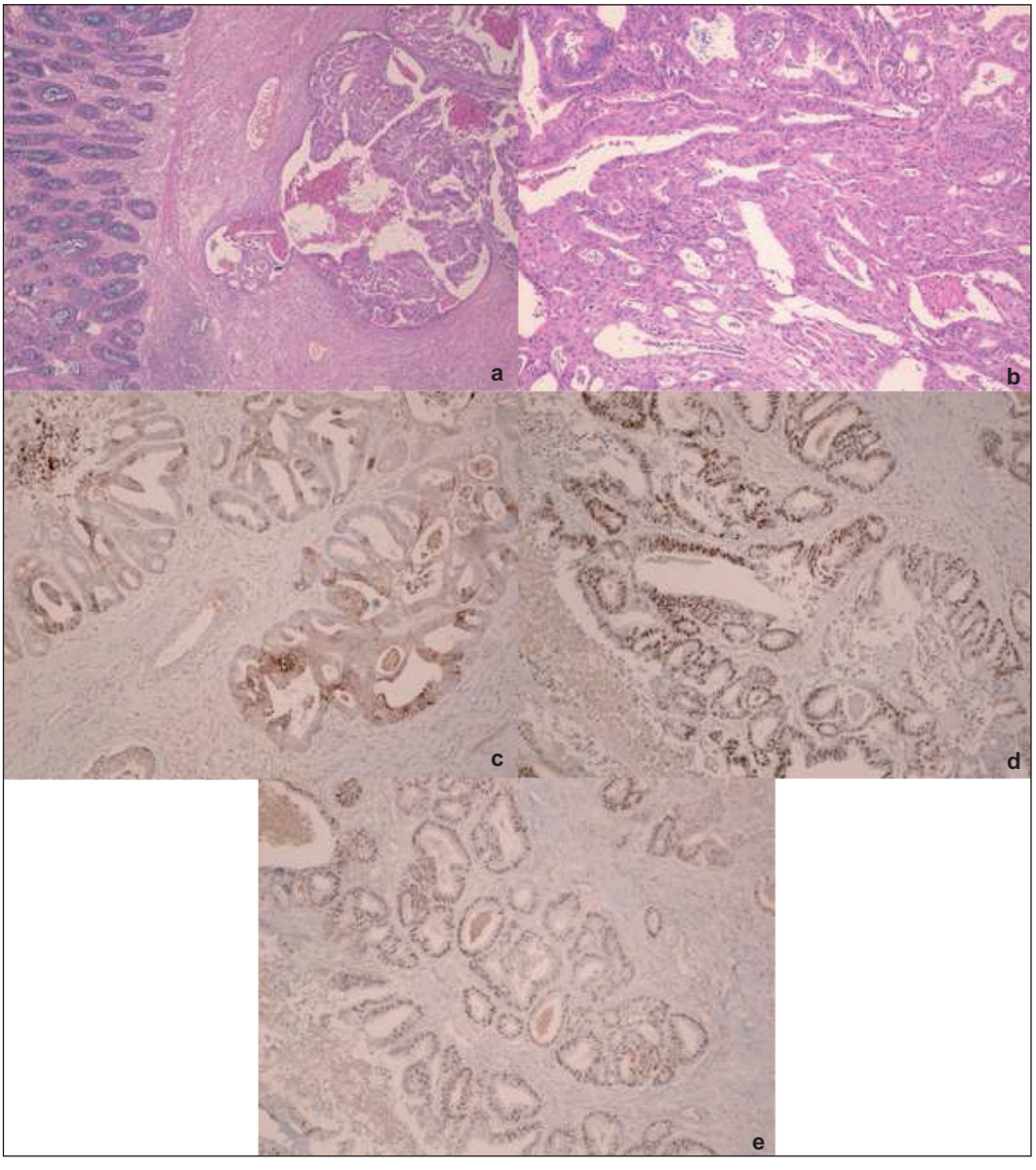


**FIGURE 4: a.** Tumor localized in the submucosal area (H&E, X40) **b.** Tumor cells with large eosinophilic cytoplasm (H&E, X200), **c.** Tumor cells with CK7 expression (X100), **d.** ER positivity in tumor cells (X100), **e.** PR positivity in tumor cells (X100).

nism underlying the failure of existing therapeutic modalities to fully eradicate cancers. Dormancy might critically contribute to early stages of tumor development and formation of clinically undetectable micro metastatic foci.[9]

As in our case, EUS findings of subepithelial metastatic tumors may be misleading to a false diagnosis as GIST. Therefore, immunohistochemical staining of the fine needle biopsy material is a correct diagnostic tool in such rare instances. Also, when dealing with the SELs, patient history of a previous malignancy operation may be a key point in diagnosis of dormant tumors.

### *Informed Consent*

*The patient has given written consent for this case report.*

### *Source of Finance*

*During this study, no financial or spiritual support was received neither from any pharmaceutical company that has a direct connection with the research subject, nor from a company that*

*provides or produces medical instruments and materials which may negatively affect the evaluation process of this study.*

### Conflict of Interest

*No conflicts of interest between the authors and / or family members of the scientific and medical committee members or members of the potential conflicts of interest, counseling, expertise, working conditions, share holding and similar situations in any firm.*

### Authorship Contributions

***Idea/Concept:*** *İbrahim Hakkı Köker;* ***Design:*** *İbrahim Hakkı Köker;* ***Control/Supervision:*** *İbrahim Hakkı Köker,* ***Data Collection and/or Processing:*** *İbrahim Hakkı Köker, Selma Şengiz Erhan, Ömür Alan;* ***Analysis and/or Interpretation:*** *Emre Sivrikoz, İbrahim Hakkı Köker, Selma Şengiz Erhan;* ***Literature Review:*** *Ömür Alan, İbrahim Hakkı Köker;* ***Writing the Article:*** *İbrahim Hakkı Köker, Ömür Alan;* ***Critical Review:*** *İbrahim Hakkı Köker.*

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