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## Apple-core lesion

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## ARTICLE INFO

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A 76-year-old woman with history of early stage breast cancer presented for follow-up to oncology clinic with abdominal pain for weeks.

In 2010, she was diagnosed with early stage hormone receptor positive (Estrogen receptor (ER), Progesterone receptor (PR) and Human epidermal growth factor receptor 2 (HER2) positive) invasive lobular breast cancer. She underwent bilateral mastectomy, adjuvant chemotherapy with 1-year maintenance Herceptin, followed by adjuvant antiestrogen therapy. In 2014, she presented with small bowel obstruction and was diagnosed with metastatic breast cancer to small bowel and bone. She was started on capecitabine and denosumab with stable disease for 2 years.

Computed tomography of abdomen and pelvis done for abdominal pain showed 2 new “apple core” lesions involving the hepatic flexure of the colon ([Fig 1](#)) and the sigmoid colon ([Fig 2](#)). She underwent colonoscopy and pathology revealed invasive lobular carcinoma, ER positive, PR negative, and HER2 non-amplified. She was started on Fulvestrant. The patient has been on treatment for 2 years now with stable disease.

Apple-core lesions are classically associated with annular colorectal carcinomas that causes constriction of the lumen. In those with prior history of breast cancer, second primary of the gastrointestinal tract are more common than metastatic disease. Therefore, biopsy is important to rule out second primary. Another reason to biopsy is to reassess ER, PR, and HER2 receptors as

*Abbreviations:* ER, Estrogen receptor; PR, Progesterone receptor; HER2, human epidermal growth factor receptor 2.

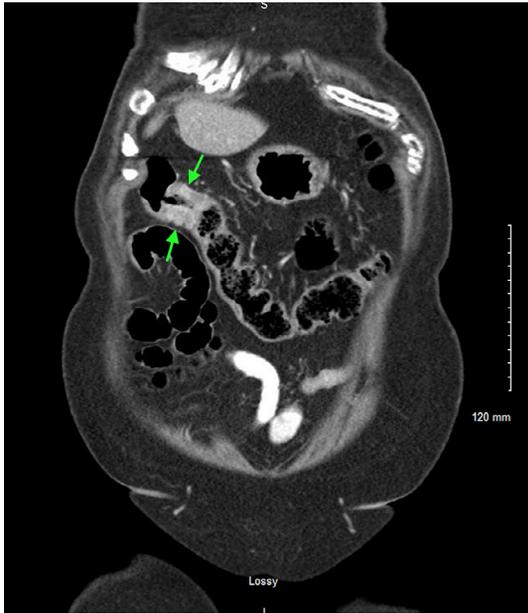
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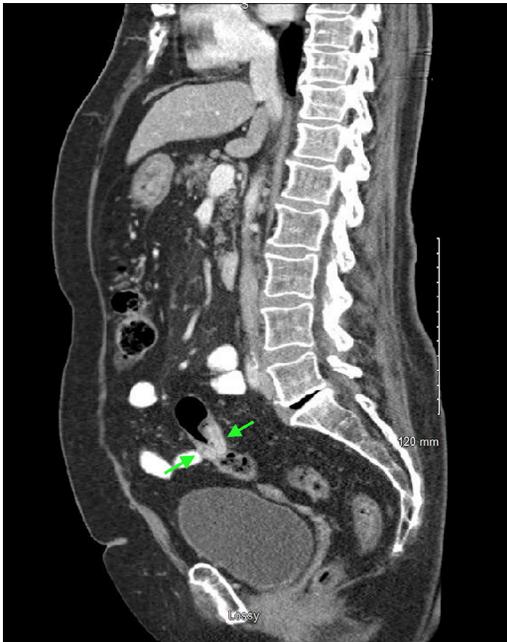
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**Fig. 1.** Coronal view of CT abdomen and pelvis showing apple core lesion in hepatic flexure of the colon (arrow). (Color version of figure is available online.)



**Fig. 2.** Sagittal view of CT abdomen and pelvis showing second apple-core lesion in sigmoid colon (arrow). (Color version of figure is available online.)

their expression changes during the course of breast cancer, which in turn changes the treatment [1]. This case highlights the importance of biopsy of suspected metastasis in breast cancer for diagnosis confirmation and reassessment of hormone status.

### **Supplementary material**

Supplementary material associated with this article can be found, in the online version, at doi:[10.1016/j.currprobcancer.2019.04.001](https://doi.org/10.1016/j.currprobcancer.2019.04.001).

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