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Women with Undiagnosed Colorectal Adenocarcinomas Presenting with Ovarian Metastases: Clinicopathologic Features and Comparison to Women with Known Colorectal Adenocarcinomas having Ovarian Metastases

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Abs tract:

Background:

Recognition of an ovarian tumor as a metastasis from an undiagnosed primary gastrointestinal carcinoma can be difficult when specific symptoms referable to the primary tumor and characteristic features of metastatic disease are lacking and the tumor simulates a primary ovarian neoplasm grossly and microscopically. Analysis of cases having ovarian metastases from known versus undiagnosed colorectal adenocarcinomas could elucidate reasons for the diagnostic difficulty as well as useful features for improving diagnosis of patients with metastases from clinically occult colorectal carcinomas.

Design:

Clinicopathologic features of 11 patients presenting with ovarian metastases from undiagnosed colorectal adenocarcinomas (U-CRA) were compared to those of 11 patients having metastases from known colorectal adenocarcinomas (K-CRA).

Results:

Women with U-CRA were on average a decade younger than those with K-CRA, presented with clinical findings related to the ovarian metastases, often had elevated CA125 levels, and lacked specific symptoms due to the colorectal carcinomas, which were diagnosed at the time of evaluation of the ovarian tumors. For patients with K-CRA, 7 bowel tumors were diagnosed prior to the ovarian metastases; 4 were diagnosed synchronously but the colorectal carcinomas were clinically manifest and diagnosed preoperatively. Notable features more commonly observed in ovarian metastases from U-CRA than those from K-CRA included bilateral ovarian involvement, mucinous differentiation, and CK7 expression; classical pathologic features of metastatic colorectal carcinoma, including endometrioid-like differentiation and a garland pattern of necrosis, were less commonly observed in the former group. Mean and median tumor sizes were not significantly different but the ovarian tumors in women with U-CRA were significantly enlarged (>15 cm) in 7 cases and clinically unilateral in 5 of these.

Conclusions:

In cases having ovarian metastases from U-CRA, the younger age of the women, uniform presentation as pelvic masses with few bowel symptoms, elevated CA125 levels, large size of the majority of these ovarian metastases, frequent unilateral involvement based on clinical findings, frequent mucinous differentiation, and frequent coexpression of CK7 and CK20 are features that can contribute to misclassification of these metastases as primary ovarian neoplasms. The possibility of metastatic colorectal adenocarcinoma should be considered for ovarian tumors having mucinous and/or endometrioid differentiation, even when characteristic clinicopathologic features of metastases are lacking.