Medullary carcinoma of the colon: an adenocarcinoma with better prognosis

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A 58-year-old man presented with pain in the left lower abdomen. His past medical history was significant for diverticulosis in the sigmoid colon. Abdominal computed tomography scan showed stricture in the ascending colon and diverticulosis. Colonoscopy revealed a mass (Fig. 1) in the ascending colon. Pathology showed medullary (solid, poorly differentiated) carcinoma (MC). The patient underwent right hemicolectomy laparoscopically. Two of the 35 rejected mesenteric lymph nodes were positive for metastatic carcinoma, with no information of distant metastases. Immunohistochemical stains were strongly positive for Vimenin, CD10 and Pankeratin. These features support a diagnosis of MC of the colon (Fig. 2). The TNM [1] staging was T3N1bM0, stage IIIB. Thirty eight months later there is no evidence of recurrent disease.

MC is an exceedingly rare entity of adenocarcinoma (0.03%),poorly differentiated MC (72%),and undifferentiated MC (22%) [1,2]. Although these tumors tend to be right-sided (54%) and therefore present at an advanced stage, commonly stage II, distant metastases are rare at presentation (10%) [3]. Histological analysis reveals nests or trabeculae of regular small to medium-sized cells with moderate amounts of eosinophilic cytoplasm (Fig. 2). MCs are mostly diploid with no p53 protein stabilization and exhibit widespread genomic alterations, namely within the microsatellite DNA [3]. Interestingly, calretinin staining is strongly positive in 73% of MCs compared to 12% of poorly differentiated colonic carcinomas [3]. They have one- and two-year relative survival rates of 93 and 74% respectively [2].

Though rare, these colonic carcinomas deserve special interest due to: 1) the broad spectrum of differential diagnosis; 2) their clinical course; 3) their favorable prognosis; and 4) the unique molecular changes. MC appears to be a distinctive clinicopathologic entity, with good prognosis and should be distinguished from other more aggressive, non-glandular tumors of the colon.

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Figure 1 A flat elevation (D = 2 cm) with central depression and ulceration, i.e., medullary carcinoma, in the ascending colon



Figure 2 Nests or trabeculae of regular small- to medium-sized cells with moderate amounts of eosinophilic cytoplasm. The nuclei have an open chromatin pattern and exhibit prominent nucleoli

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