Adenocarcinoma in a Non-communicating Cecal Duplication Cyst: An Extremely Rare Case


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Abstract

Duplication cysts (DCs) are congenital anomalies that manifest during embryonic development. These cysts may be communicating or non-communicating, with the ileum being the most common location. Although the majority of DCs are benign and asymptomatic, malignancy is a rare but complex addition to the diagnostic and treatment challenge. Malignancies within non-communicating DCs, as observed in this case, are exceedingly rare in the English literature. Herein, a case of a non-communicating colonic duplication cyst with adenocarcinoma is presented. A 53-year-old woman was referred to the surgical oncology department due to abdominal pain, a sensation of fullness, and a mass-like lesion in her right abdomen.

Physical examination revealed a large mass in the right abdominal region. Laboratory tests were within normal ranges, including tumor markers (Alpha-Fetoprotein, CA 19-9, CA 125, CEA). An abdominal computed tomography scan identified a cystic lesion 120 mm in diameter located posterolateral to the cecum and ascending colon, with a 19 mm solid nodule at its periphery. The cyst had no connection with the gastrointestinal tract. The differential diagnosis included mesenteric mesothelial cyst, hydatid cyst, ovarian tumor, or duplication cyst; thus, explorative laparotomy was performed for diagnosis and treatment. During surgery, a large cystic lesion was observed posterior to the ascending colon. Gross examination showed it resembled the intestine and was located in the ascending mesocolon, with a smooth surface and no visible connections to other visceras. An en-bloc resection of the cystic mass with adjacent mesentery was performed. Histological evaluation revealed an enteral duplication cyst filled with cloudy fluid and a mucinous adenocarcinoma in the cyst wall nodule. None of the four lymph nodes dissected from the specimen were involved by tumor cells (T1N0). The conclusion is that akin to other colon cancers, en bloc surgical resection remains the cornerstone of treatment, with adjuvant therapies and long-term surveillance mirroring those for colon cancer.

Keywords: Duplication cysts, Adenocarcinoma, Case report