Duodenal Adenocarcinoma: A Rare Cause of Cholangitis

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Abstract

Duodenal adenocarcinoma is very rare among the general population. The diagnosis may be delayed until advanced stages, due to the subtle and nonspecific clinical manifestations of that rare pathology. Abdominal pain, upper gastrointestinal bleeding, weight loss and biliary obstruction may be the main patient’s complaints. We present a very interesting case of an old patient with dementia, hospitalized with a clinical, laboratory and imaging state consistent with cholangitis. Conservative therapy with antibiotics and an urgent ERCP was held, during the procedure, the major papilla could not be identified due to distorted anatomy of the second and third parts of the duodenum. Torsion like appearance of the duodenum was observed. Consequently, the patient biliary tract was drained by inserting an internal–external drain percutaneously. Following the external drainage, a successful gastroscopy was done, with successful exploration of the proximal duodenum, revealing the true cause of the bile duct obstruction; a large pedunculated polypoid mass (approx. 30 mm), in proximate to the major papilla was found as well as the distal pigtailed plastic stent with was inserted as mentioned during angiography. The mass diagnosed as duodenal adenocarcinoma in pathology. This unique case describes presentation of an aggressive rare duodenal cancer, mimicking biliary cholangitis distorting the local anatomy. Endoscopic exploration became feasible due to primary percutaneous drainage.

Keywords: Duodenal adenocarcinoma; ERCP; Cholangitis

Introduction

Duodenal adenocarcinoma (DA) is a rare but aggressive malignancy. It represents less than 1% of all gastrointestinal cancers. [1]. While most tumors of the ileum are neuroendocrine in origin, adenocarcinoma is the most common duodenal cancer [2]. The majority of DA arises in the second portion of the duodenum, followed by D3/D4, with cancers of the first portion of the duodenum, especially the duodenal bulb, extremely rare [3]. The diagnosis of DA is difficult and often delayed. When symptoms do appear they are nonspecific. Gastrointestinal obstruction and jaundice are symptoms associated with advanced disease. [4]. Cholangitis is an infection condition in the common bile duct, generally caused by obstructing biliary stones. Most of these conditions are successfully treated conservatively, while others mandate endoscopic or even rarely surgical treatment. Duodenal adenocarcinoma may cause obstruction of the papilla and leads to clinical cholangitis; however that is extremely rare cause of cholangitis.

Case Presentation

An 87-year-old patient, with dementia and very low activity state, referred to our institute in a clinical state suspected as cholangitis, presenting with epigastric pain, high fever, chills and jaundice combined with elevated hepatocellular enzymes. Abdominal sonography demonstrated cholelithiasis, dilated common bile duct (1 centimeter) without signs of cholecystitis. Pancreatitis was ruled out.

Urgent ERCP was held. During the procedure, the major papilla could not be identified due to distorted anatomy of the second and third parts of the duodenum. Torsion like appearance of the duodenum was observed (Figure 1). Consequently, the patient biliary tract was drained by inserting an internal –external drain percutaneously (Figure 2). An abdominal CT demonstrated a dilated extra an intrahepatic biliary tract, thickened wall of the third part of the duodenum and sign of intussusception of the 4th part. No other pathological findings were mentioned. Following the external drainage, a successful gastroscopy was done, with successful exploration of the proximal duodenum, revealing the true cause of the bile duct obstruction. A large pedunculated polypoid mass (approx. 30 mm), in proximate to the major papilla was found as well as the distal pigtailed plastic stent with was inserted as mentioned during angiography (Figure 3). A further evaluation of the area and more distal duodenum was done using side view duodenoscope and push enteroscopy technique, revealing two neighbor distal ulcers. The major papilla area was not involved in any pathological process.
Histology of the polypoid lesion revealed fragments of small bowel mucosa showing necrotic tissue, Low grade dysplasia and areas compatible with adenocarcinoma. Biopsies from the more distal ulcers demonstrated mild nonspecific inflammation.

**Figure 1** Torsion like and distorted anatomy in the second part of the duodenum.

**Figure 2** External-internal drains and a doudenal mass.

**Figure 3** CT image showing a small intestine mass suspected of tumor (arrow).

**Discussion and Conclusion**

This unique case describes presentation of an aggressive rare duodenal cancer, mimicking biliary cholangitis distorting the local anatomy. Endoscopic exploration became feasible due to primary percutaneous drainage. Surgery and chemotherapy are therapeutic options for duodenal adenocarcinoma; however our patient was not a candidate due to his age, mental and functional state.

**Conflict of Interest**

The authors declare no conflicts of interest.

**References**


