



Primary Duodenal Adenocarcinoma

IMAGE

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A 70-year-old man with no prior medical history was admitted with nonspecific complaints of abdominal pain, jaundice, nausea, vomiting, fatigue, and weight loss. Esophagogastroduodenoscopy was performed, indicating a narrowing of the duodenum. Magnetic resonance imaging (MRI) revealed a large heterogeneous mass, measuring 11x8 cm, situated all along the duodenum, without invasion of the mesenteric vessels (Fig. 1). The patient underwent radical Whipple procedure (pancreaticoduodenectomy). The tumor had spread to all four segments of the duodenum (Fig. 2). Upon microscopy, a papillary mucus-secreting adenocarcinoma was confirmed with infiltration of the duodenal wall (Fig. 3). Of the 13 resected lymph nodes, none was infiltrated with tumor cells. On clinical grounds, the diagnosis of adenocarcinoma pT4N0M0 (Stage IIB, American Joint Committee on Cancer Classification) of the duodenum was admitted. The patient's postoperative course was uneventful. Following surgical treatment, adjuvant chemoradiotherapy was administered – including an oxaliplatin and capecitabine combination. At the 6-month follow-up, our patient had remained well. Written informed consent was obtained from the patient for participation in this study.

Primary duodenal adenocarcinoma (PDA) accounts for 0.3%–1% of all gastrointestinal tumors and 25%–35% of all malignant tumors of the small intestine (1). The disease is usually diagnosed at the advanced stage. Approximately 45% of PDA cases arise at the third and fourth anatomical regions of the duodenum (2). Investigative methods of choice remain endoscopy and duodenography which, more often than not, demonstrate the site, severity, and length of the lesion. Regarding therapy, the only treatment for PDA that can be considered to lead to a cure is a radical surgical excision of the tumor. Radical pancreaticoduodenectomy is the classic curative operation and by far the foremost treatment choice for tumors of the



Figure 1. MRI demonstrates a large heterogeneous mass, engaging the duodenum, measuring 11x8cm, without invasion of mesenteric vessels

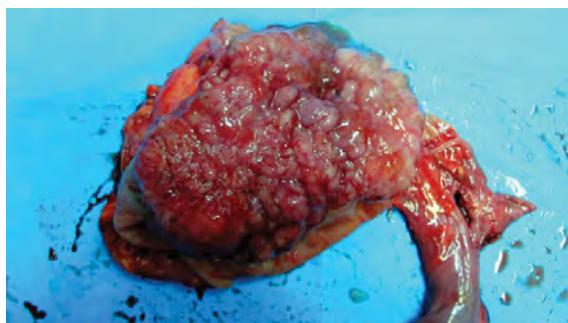


Figure 2. Operative specimen after Whipple procedure showing a large polypoid mass, engaging all four segments of the duodenum

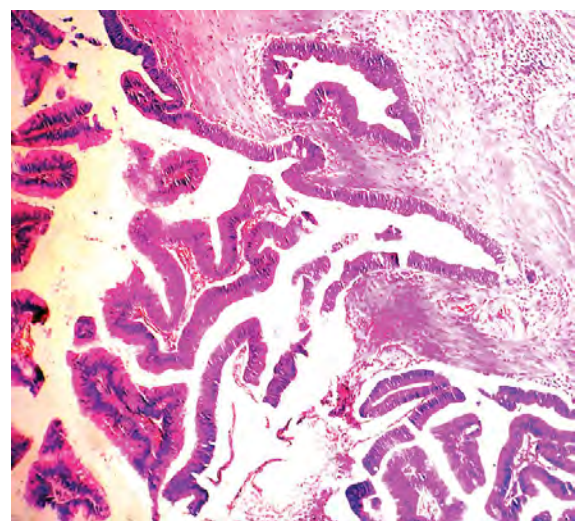


Figure 3. Histopathology verified a mucus-secreting papillary adenocarcinoma of the duodenum with infiltration of the duodenal wall by the tumor (H&E stain, ×100)

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duodenum. Chemotherapy has no part to play in primary treatment and information regarding its use as an adjuvant treatment is limited. Nodal involvement and the chance of curative resection are independent prognostic factors for PDA (3). The five-year survival rate for patients with PDA who have undergone a curative resection is somewhere in the range of 50%–60%. This is better in comparison to tumors of the ampulla, distal bile duct, and head of the pancreas.

The Whipple procedure provides the best chance of successful treatment for duodenal adenocarcinoma patients. The roles of adjuvant chemotherapy and radiotherapy in the treatment of PDA remain unclear.

Informed Consent: Written informed consent was obtained from patients who participated in this study.

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