Dear Editor,

A 31-year-old gentleman presented to the surgery department with complaints of epigastric pain and vomiting for 4 months. Initially, it started with a feeling of heaviness after meals which later progressed to dull pain-aching aggravated with food intake and with no specific relieving factor. He had no complaints of difficulty while swallowing and well-tolerated semisolid and liquid diet, with no major discomfort and vomiting. The patient underwent upper gastrointestinal endoscopy which showed proximal dilatation of the stomach with food contents and hypertrophied mucosa, bulging into the lumen from pyloric antrum to the duodenal bulb and second part of duodenum. Transabdominal ultrasonography revealed polypoidal lesion involving the descending part of duodenum (region of ampulla of Vater) [Figure 1], and endoscopic mucosal biopsy was performed. The lesion shows well-circumscribed follicles, composed of a uniform population of large cells. Immunohistochemically, CD20, Bcl-2, and Bcl-6 are positive in the follicular area, while CD10 and CD3 are negative. The tumor cells show a high (~80%–90%) proliferation index as evident by tumor cell nuclei staining for Ki-67. MUM1 was found to be expressed by about 70% of the cells [Figure 2a and b]. Computerized tomography scan of the chest demonstrated no mediastinal lymphadenopathy. The patient was diagnosed with diffuse large cell lymphoma of the duodenum-Stage IV non-Hodgkin’s lymphoma (NHL), according to the Modified Ann Arbor staging. Due to inoperability of the mass lesion, chemotherapy was initiated with R-CHOP regimen (rituximab-cyclophosphamide, doxorubicin, vincristine and prednisone) and received a total of six cycles of chemotherapy. Following chemotherapy, the patient made an uneventful recovery and computed tomography scan of the abdomen revealed no evidence of residual tumor at 30 months.

Duodenum is an uncommon location for primary non-Hodgkin’s tumor of the gastrointestinal tract. Diffuse, large cell lymphoma of B-cell origin is currently recognized as a predominant entity representing primary NHL arising in the gastrointestinal tract. Gastrointestinal tract is the most common site and accounts for 40% of extranodal lymphomas with diffuse large B-cell lymphoma and marginal zone lymphoma of mucosa-associated lymphoid tissue (lymphoma) constituting the most common subtypes. Alexander reported the first case of duodenal lymphoma in 1877. Mizobuchi et al. described a case of primary non-Hodgkin’s T-cell lymphoma of the duodenum. In the small intestine, T-cell lymphoma of the duodenum: An uncommon location...
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NHLs predominate in the jejunum associated with coeliac disease and B-cell NHLs are frequently found in the ileum. Ultrasonographic appearances are variable and range from focal nodular thickening to diffuse thickening with parietal infiltration. Aneurysmal dilatation is most suggestive of lymphoma involvement in the gastrointestinal tract. The differential diagnoses of small bowel NHL are mainly adenocarcinoma and stromal tumors.

Declaration of patient consent
The authors certify that they have obtained all appropriate patient consent forms. In the form the patient(s) has/have given his/her/their consent for his/her/their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

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Conflicts of interest
There are no conflicts of interest.

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Figure 2: (a) Histopathology image in a proven case of diffuse large B-cell lymphoma of the duodenum demonstrating cells with vesicular chromatin, prominent nucleoli, and moderate-to-abundant amount of cytoplasm (H and E, ×400) (b) Immunohistochemistry image in a proven case of diffuse large B-cell lymphoma of the duodenum demonstrating positivity for CD20 (×200). CD20 antibody staining protocol for immunohistochemistry was adopted. Chromogen substrate reagent used was DAB and counterstain used was Mayer’s hematoxylin for membrane staining pattern.