Intussusception of a Small Bowel Large B-Cell Lymphoma

William C. Palmer · Ron G. Landmann · Dustin L. Eck ·
David M. Menke · John R. Cangemi

Received: 19 February 2014 / Accepted: 10 March 2014 / Published online: 29 March 2014
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Abstract Gastrointestinal tumors can rarely cause intestinal intussusception. Herein, we describe a 74 year-old male with a presumed diagnosis of Crohn's disease who presented with persistent symptoms refractory to medical management. Radiography demonstrated small bowel intussusception into the cecum. Lower endoscopy with biopsy diagnosed small bowel large B-cell lymphoma. Management included laparoscopic ileocectomy and adjuvant R-CHOP chemotherapy. Long term outcomes of small bowel large B-cell lymphoma are related to disease stage at diagnosis, and average close to 75 %.

Keywords Intussusception · Small bowel malignancy · Large B-cell lymphoma · Gastrointestinal tumors

A 74 year-old male was hospitalized elsewhere for small bowel obstruction and diagnosed with presumed Crohn's disease of the terminal ileum based on endoscopy and radiography. Treatment was initiated with prednisone and sulfasalazine. Secondary to side effects, this was changed to mesalamine, and later to azathioprine. Due to lack of response, these were all stopped after 8 months just prior to consultation at our institution. Symptoms at presentation included intermittent crampy abdominal pain with distension and inability to tolerate a regular diet. Physical exam was notable for abdominal pain without rebound and a normal rectal exam.

CT enterography (Fig. 1) demonstrated intussusception of the terminal ileum through the ileocecal valve into the cecum. On coronal imaging, note the invagination of the intussusceptum (terminal ileum, TI) into the intussusciens (cecum, C). Colonoscopy (Fig. 2) revealed a telescoping,

Fig. 1 Coronal CT demonstrating intussusception. Note the invagination of the intussusceptum (terminal ileum, TI) into the intussusciens (cecum, C)

Fig. 2 Endoscopic view of the lymphoma functioning as the intussusceptum through the ileocecal valve into the cecum

W. C. Palmer (✉) · R. G. Landmann · D. L. Eck · D. M. Menke ·
J. R. Cangemi
Mayo Clinic - Jacksonville, 4500 San Pablo Road S, Jacksonville,
FL 32216, USA
e-mail: palmer.william@mayo.edu

Fig. 3 a Laparoscopic and b gross pathological view of the lymphoma (L) and intussusceptum (TI) invaginating into the intussusciens (cecum, C)

friable mass protruding from the ileocecal valve. Laparoscopic ileocecectomy was performed incorporating the 7 cm tumor. Figure 3 displays a) laparoscopic and b) gross pathological view of the lymphoma (L) and intussusceptum (TI) invaginating into the intussusciens (cecum, C). Care was taken not to directly manipulate the intussusception via a no-touch surgical technique. Pathology specimen prepared with hematoxylin and eosin staining at 100× shows diffuse large B cell lymphoma infiltrating small bowel villi, histologically consistent with a malignant large B-cell lymphoma (Fig. 4). Adjuvant R-CHOP chemotherapy was initiated.

Small bowel lymphoma accounts for 20–54 % of primary gastrointestinal lymphomas, which represent 4–20 % of all non-Hodgkin lymphomas. [1] Small bowel lymphoma is best treated combining surgical and medical subspecialists. Key factors in treatment include histology and staging, along with age, tumor size, and presents of perforation [2]. The current chemotherapeutic standard of care is cyclophosphamide, doxorubicin, vincristine, and prednisone, with or without rituximab. Surgical resection

Fig. 4 Hematoxylin and eosin staining at 100x showing diffuse large B cell lymphoma infiltrating small bowel villi

combined with this chemotherapy has been shown to independently improve overall survival for intestinal large B-cell lymphoma [3]. Outcomes relates directly to the disease stage on diagnosis, with long term survival reported close to 75 % overall [4].

Disclosure The authors have no financial disclosures.

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