Gastric Lymphoma: Incidental Finding or Life-Threatening Illness?

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Case Presentation

- 82 year old woman seen for rectal bleeding
- EGD/colonoscopy performed…small gastric ulcer only abnormality found
- Pathology…
- Begun on antibiotic treatment for H. Pylori
- PET/CT….
- Bone marrow biopsy negative

Case Presentation, cont.

- Referred to radiation oncology for consideration of treatment to stomach
- No chemotherapy given
- Has been fine ever since
- Subsequent endoscopies with biopsy have been negative for lymphoma

Case #2

- 69 year-old woman presented to her family physician feeling extremely weak
- Mild upper abdominal discomfort
- Six-pound weight loss
- Physical Exam
  - Suspicious left supraclavicular node
  - Vague epigastric fullness
- Labs: H/H = 9/27; Serum albumin 1.8
- Stool hemoccult positive

Case #2, continued

- Admitted to the hospital
- Underwent upper endoscopy and biopsy of suspicious area
- Endoscopic findings: huge unresectable mass in stomach
- X-ray findings:
- Pathology findings:

Case #2, continued

- Undergoing further evaluation with MUGA scan to assess cardiac reserve
- Started on double antibiotic therapy for H. pylori
- Plan systemic chemotherapy with Rituxan and CHOP to start shortly

Gastric Lymphoma

- Gastrointestinal lymphomas (gastric, small bowel, colonic) comprise 8% of all non-Hodgkin lymphoma; additional 4% have GI involvement as part of generalized pattern
- Gastric lymphomas comprise 50-75% of all gastrointestinal lymphomas
- Common subtypes of gastric lymphoma
  - MALT – low-grade
  - Diffuse large-cell lymphoma –high grade

A word about MALT lymphoma

- MALT: Mucosa associated lymphoid tissue
- For years thought to be benign ("pseudolymphoma")
- Now known to have metastatic potential
- Initially low-grade marginal zone B-cell lymphomas of mucosal surfaces with characteristic chromosomal translocations

MALT, continued

- t(11;18) (q21;q21)
- t(14;18)(q32;q21)
- t(1;14)(p22;q32)
- t(3;14)(p13;q32)
- Possibly start out as chronic inflammation from infection (e.g., H. pylori) or other inciting mechanisms, with downstream malignant transformation
- Lyme disease and Psittacosis also implicated as inciting infections – data not robust
- Can arise in Hashimoto's thyroiditis, ocular adnexa of Graves' patients
  - Hence either infection or inflammation may be inciting mechanism

MALT, continued

- Similar morphologic can be seen in:
  - Spleen – called splenic marginal zone NHL
  - Lymph nodes – called nodal marginal zone lymphoma
  - No overlap with MALT of mucosal surfaces, although mucosal MALT can spread to lymph nodes

Metastatic MALT

- Can be found at diagnosis or later on to involve other mucosal sites (e.g., lung, mouth) or lymph nodes
- When spread to other sites, gastric lymphoma secondary to H. pylori needs to be treated with systemic chemotherapy

MALT, in conclusion

- Over time MALT can dedifferentiate to a high grade diffuse large-cell lymphoma
- Usually leaves footprint of MALT mixed in with higher-grade morphology when present

Gastric MALT

- Case 1 typifies
- High correlation with H. pylori infection
- Usually low grade and localized to affected organ
- Can be eradicated with antibiotics alone
  - Requires repeated endoscopies and biopsies to prove continued remission

Gastric MALT, continued

- Other options for therapy
  - Gastrectomy – largely supplanted by newer effective therapy; unnecessary
  - Radiation as adjunct to antiobiotics or as salvage therapy for never eradicated or relapsed disease
  - Single-agent chemotherapy as adjunct to antibiotics and also radiation
  - Rituxan as adjuvant to antibiotics and also radiation
- Survival probability for all modalities is extremely high

Treatment of Gastric MALT

- Lack of randomized controlled trials makes selecting among options difficult
- We chose adjuvant radiation after antibiotics as alternative to watchful waiting with need for serial endoscopies and biopsies
- Tolerated very well at age 82
- Anticipate cure rate of close to 100%

High-Grade (Diffuse Large Cell) B-Cell Gastric Lymphoma

- Represent most of the rest of gastric lymphoma that is not MALT
- Equal in frequency to MALT in some series
- May result from outgrowth of high-grade focus in the midst of MALT or as de novo DLCL
- Presence of classic MALT chromosomal translocation, e.g., t(11:18) or cell surface markers implies former etiology

Gastric DLCL, continued

- Present like gastric adenocarcinoma with pain and weight loss (vs. MALT, with fewer symptoms)
- Role of H. pylori much less clear cut
  - In our patient a few Hp organisms were seen of questionable importance – typical finding
- Therapy must be more intensive and should include antibiotics if Hp positive…

Gastric DLCL, continued

- Usually includes Rituxan-based combination chemotherapy
- Gastrectomy discredited but surgical complications can occur: bleeding, obstruction and (less often) perforation
- Question of whether H. pylori treatment alone is enough with very limited Gastric DLCL
  - Articulate minority view which says antibiotics alone can suffice in the treatment of DLCL localized to gastric mucosa

Case #2, continued

- Back to Case #2
  - Shows abundant evidence of large tumor burden outside vicinity of stomach
  - Literature silent as to whether H pylori treatment has any role once tumor has spread beyond stomach (all same clone??)
  - We plan to treat as disseminated large cell lymphoma with associated stomach involvement, but treat H. pylori while pretreatment work up underway (MUGA scan, venous access device, etc.)
  - Chromosomal analysis might answer question of whether this tumor arose out of indolent MALT

Conclusion

- Gastric lymphoma can present as incidental finding with high cure rate or as an aggressive systemic B-cell lymphoma
- Pathology plays a huge role, as does initial staging work up
- Stay tuned as to how Case #2 will ultimately do