ORIGINAL ARTICLE

PRIMARY GASTRIC HODGKIN'S LYMPHOMA: A HISTOLOGICAL SURPRISE!!

Channanna C[1], Sunanda C[2], Fazul Ur Rehman B. Choudhari[3]

HOW TO CITE THIS ARTICLE:
Channanna C, Sunanda C, Fazul Ur Rehman B. Choudhari. "Primary Gastric Hodgkin's Lymphoma: A Histological Surprise!!". Journal of Evidence Based Medicine and Health Care; Volume 1, Issue 7, September 2014; Page: 643-648.

INTRODUCTION: Non-Hodgkin's B-cell lymphomas represent the vast majority of primary gastric lymphomas, whereas primary Hodgkin's lymphoma (HL) involving the stomach is exceedingly rare and only a few cases have been reported in the medical literature to date. A diagnosis of HL depends primarily on the detection of Reed-Sternberg cells using light microscopy technique. Hodgkin's disease is typically characterized by non-tender lymphadenopathy (m/c cervical group). The set of B symptoms (fevers, night sweats, weight loss >10%) may also be present. However in few cases the disease may be localized to gastrointestinal tract and regional lymph nodes. In such cases it is called as primary gastrointestinal lymphoma. The stomach alone may be involved, and such cases of primary lymphoma of stomach have been reported. Lymphomas of stomach are generally non-Hodgkin's type & represent 5% of primary gastric malignancies. Here we report a rare case of primary gastric Hodgkin's lymphoma, the diagnosis of which was confirmed postoperatively.

Case Report:

- A 35 year male patient presented with complaints of pain abdomen for the last one month. Pain was localized to epigastric region and was radiating to back. It was associated with post-prandial fullness and occasional non-bilious vomiting. History of loss of appetite & loss of weight was present. Patient was chronic alcoholic for the past 8 years. No history of chronic medication intake or any previous surgeries in the past. No significant family history. On examination vitals were stable, abdomen was soft, epigastric tenderness was present and bowel sounds were heard normally. Rest of the clinical examination was within normal limits. On Upper GI Endoscopy there was presence of gastric stasis with residual food material. Repeat UGI Endoscopy after stomach washouts revealed evidence of Circumferential Growth seen in stomach, 3 cms from oesophago gastric junction. Multiple Biopsies were taken and sent for HPE.HPE revealed features suggestive of chronic gastric ulcer. Ultrasound scan of abdomen showed presence of multiple enlarged peri-pancreatic groups of lymph nodes measuring 15-35mm, about 8 in number. CECT abdomen revealed thickening of the anterior gastric wall of about 6mm along with enlargement of peri-portal lymph nodes. Patient was prepared for surgery and surgery was planned in the form of laparotomy and proceeds. On laparotomy by upper midline incision a growth was noted in the lesser curvature of stomach, with Sub-pyloric, Supra-pyloric, Celiac and Peri-portal lymphadenopathy. There was no evidence of Hepatic metastasis. Sub-Total Gastrectomy with Billroth II Gastro-Jejunostomy done. Recovery from anaesthesia was satisfactory. Post-operative period was uneventful. On histo-

pathology; Macroscopy had Gastrectomy specimen measuring 12X7X7 Cms revealed an Ulcerative growth of 6cms diameter along with six lymph nodes, largest measuring 3cms, grey-white surface. On microscopy polymorphous cell populations of lymphocytes, plasma cells, eosinophils with mononuclear giant cells were seen. Large binucleate cells with prominent eosinophilic nucleolus were seen with partial effacement of architecture. Surgical margins free were from tumor. Features were suggestive of Hodgkin's lymphoma of stomach. On immunohistochemistry it revealed CD 15, 30, 20 positivity. Photomicrograph with immunohistochemistry staining showed CD 30 positive large cells in inflamed gastric mucosa. This confirmed the diagnosis of Hodgkin's lymphoma of stomach. Patient is on regular chemotherapy and has been on regular follow up.

DISCUSSION: Lymphoma of the gastrointestinal tract is seen more commonly in the context of disseminated disease. The presentation of HL with an extra nodal location is quite uncommon. Primary gastric Hodgkin's disease is extremely rare. With the uncertainty of histological diagnosis and hence the development of immunohistochemical techniques for gastrointestinal Hodgkin's disease, it has been reported that the frequency of primary Hodgkin's disease of the stomach is probably even less than 1% of all gastric lymphomas. In a review by Colluci et al. of 721 patients with primary gastric lymphoma between 1973 and 1990, only 17 were diagnosed as the Hodgkin's variety [3].

In 1961, Dawson et al [8]. proposed a set of criteria for the diagnosis of primary gastrointestinal HL from secondary involvement because lymphoma of the gastrointestinal tract is seen more commonly in the context of disseminated disease. These criteria included 1) absence of peripheral lymphadenopathy at the time of presentation, 2) lack of enlarged mediastinal lymph nodes, 3) normal results for a complete blood count and differential, 4) predominance of the bowel lesion, despite the presence of disease in adjacent lymph nodes, and 5) absence of any lymphomatous involvement of the liver or spleen. Our case fulfilled all of the aforementioned criteria.

Difficulties in pre-operative diagnosis of Hodgkin's disease of the stomach have been cited before. This is clearly illustrated in our case. Diagnostic endoscopy usually reveals non-specific gastritis or peptic ulcers with mass lesions being unusual as was the case in our patient. Chances of misdiagnosis are very high, because of, low rate of Reed-Sternberg cells in biopsy specimens and the increasing prevalence of histologically similar diseases. It should be noted that un certainty may be encountered in immune histochemical investigation. Because, a single immune-histochemical marker may be expressed in variety of cell lineages. Hence a full panel of immune-histochemical markers is essential to make an accurate diagnosis of gastric Hodgkin's disease. Our patient showed co expression of both CD30 and CD15, CD20 which is commonly associated with Hodgkin's disease [7].

The prognosis of gastric HL is poor with 45 to 60% of patients dying within the first year of diagnosis [6]. Therefore gastric HL has been treated surgically with postoperative chemo- or radiotherapy.[6] Postoperative therapy may be necessary because gastric HL may represent only one expression of systemic lymphoma, and another portion of the lymphatic system may develop malignancy postoperatively.

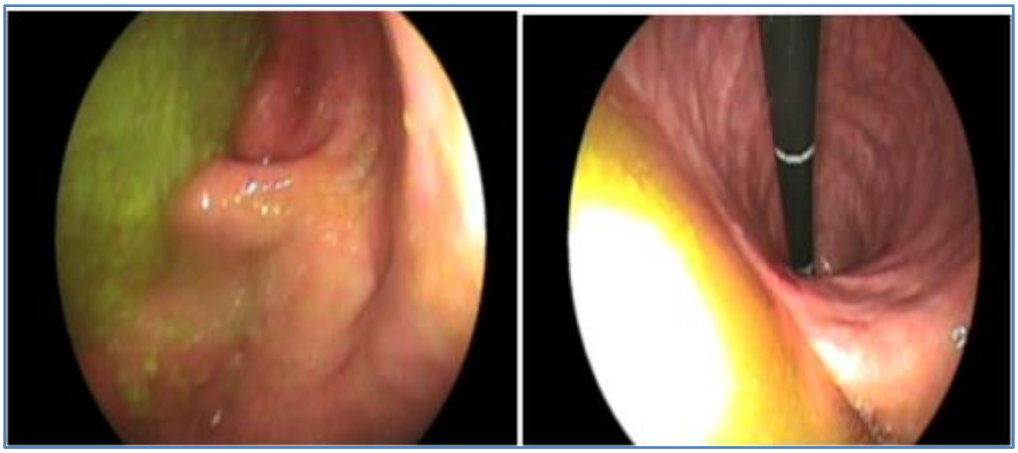
CONCLUSION: Primary gastric Hodgkin's disease is an extremely rare condition. In this pre-operative diagnosis is difficult as diagnostic endoscopy usually reveals non-specific gastritis or peptic ulcers. Immunohistochemistry and histopathology confirm the diagnosis and prognosis of Hodgkin's disease of the stomach is poor.

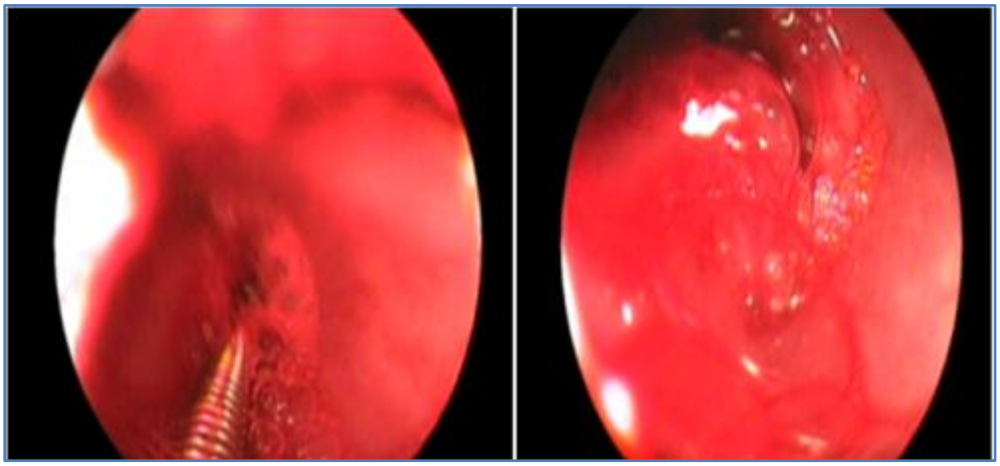
REFERENCES:

1. Saito M, Tanaka S, Mori A, Toyoshima N, Irie T, Morioka M. Primary Gastric Hodgkin's Lymphoma Expressing a B-cell profile including Oct-2 and Bob-1 proteins. Int J Hematol. 2007; 85: 421–425. doi: 10.1532/IJH97.06094.
2. Min HR, Shin YM, Lee SD, Chun BK. Clinical study of primary gastric lymphoma and analysis of prognostic factors. J Korean Surg Soc 1999; 56: 906–914.
3. Colucci G, Giotta F, Maiello E, Fucci L, Caruso ML. Primary Hodgkin's disease of the stomach: a case report. Tumori 1992; 78: 280–282.
4. Zippel K, Hoksch B, Zieren H. A rare stomach tumor-Hodgkin's lymphoma of the stomach. Chirurg. 1997; 68: 540–542. doi: 10.1007/s001040050227.
5. Devaney K, Jaffe ES. The surgical pathology of gastrointestinal Hodgkin's disease. Am J Clin Pathol 1991; 95: 794–801.
6. Ogawa Y, Chung YS, Nakata B, Muguruma K, Fujimoto Y, Yoshikawa K, et al. A case of primary Hodgkin's disease of the stomach. J Gastroenterol 1995; 30: 103–107.
7. Brooks JJ, Enterline HT. Primary gastric lymphomas: a clinicopathological study of 58 cases with long term follow-up and literature review. Cancer. 1983; 51: 701–711. doi: 10.1002/1097-0142(19830215)51: 4<701: : AID-CNCR2820510425>3.0.CO; 2-D.
8. Dawson IM, Cornes JS, Morson BC. Primary malignant lymphoid tumours of the intestinal tract, Report of 37 cases with a study of factors influencing prognosis. Br J Surg. 1961; 49: 80–89. doi: 10.1002/bjs.18004921319.

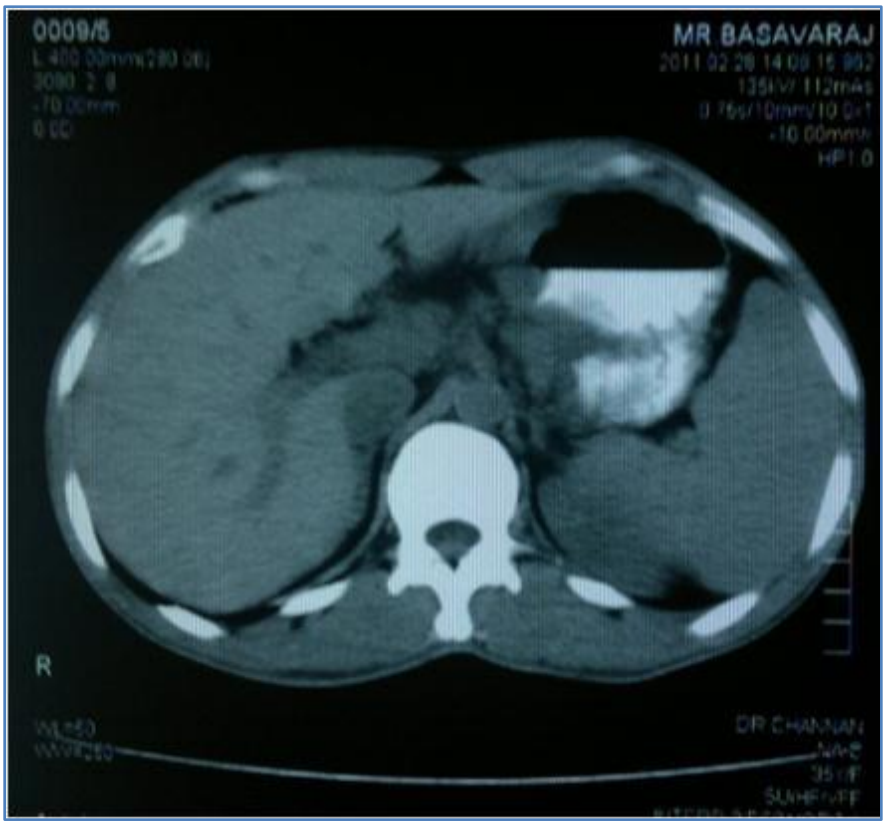
UPPER GI ENDOSCOPY:

Circumferential Growth seen 3 cms from OG Junction:

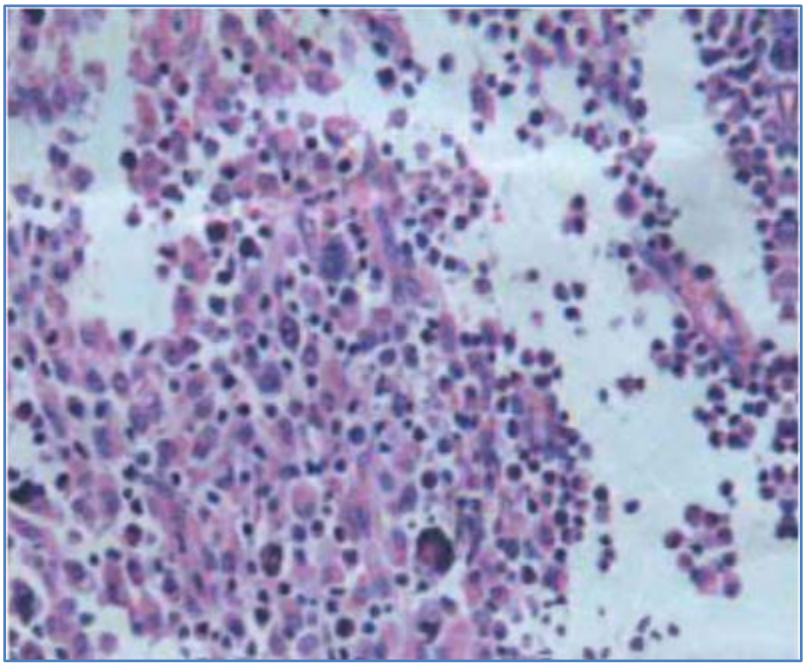




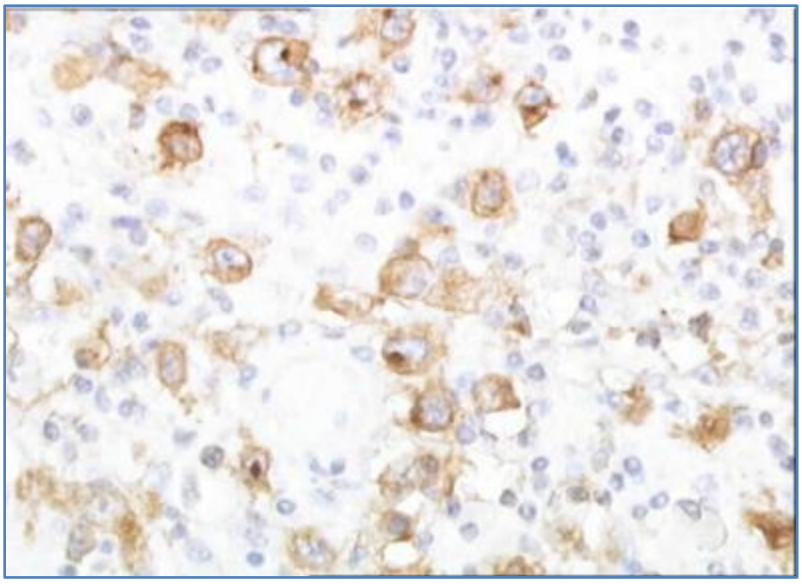
CECT ABDOMEN:
Showing Thickening of the anterior Gastric wall – 6mm with enlarged peri-portal lymphnodes.



Microscopy:
Showing REED STERNBERG CELLS



Iummunohistochemistry Slide:
Showing CD 15, 30, 20 positive cells



ORIGINAL ARTICLE

AUTHORS:

1. Channanna C.
2. Sunanda C.
3. Fazul Ur Rehman B. Choudhari

PARTICULARS OF CONTRIBUTORS:

1. Professor, Department of General Surgery, Vijayanagar Institute of Medical Sciences, Bellary, Karnataka, India.
2. Consultant Pathologist, Department of General Surgery, V. S. Hospital, Bellary.
3. Post Graduate Student, Department of General Surgery, Vijayanagar Institute of Medical Sciences, Bellary, Karnataka, India.

NAME ADDRESS EMAIL ID OF THE CORRESPONDING AUTHOR:

Dr. Channanna C,
Professor, Department of General Surgery,
Vijayanagar Institute of Medical Sciences,
Bellary, Karnataka, India.
E-mail: dr.channamudda@yahoo.com

Date of Submission: 24/07/2014.
Date of Peer Review: 25/07/2014.
Date of Acceptance: 25/08/2014.
Date of Publishing: 04/09/2014.