

SUMMARY AND CONCLUSION

The gastrointestinal tract is the most common site of primary extra-nodal lymphomas. However, only about 30% of gastrointestinal lymphomas present as gastrointestinal primaries. It account for 5 – 10% of all gastrointestinal tumors.

Many classifications had been proposed for gastrointestinal lymphoma reflecting the increased understanding of gastrointestinal immunology and associated lymphoid tissue as well as improved diagnostic technique (e.g. immunophenotyping) differentiating one type of lymphoma and cell line from others. However, the REAL classification despite being complex, has met a general agreement among pathologists.

On many occasions, patients present late, however with the availability of sophisticated diagnostic tools, the diagnosis can be made early and the classification and staging can be assessed accurately.

Gastric lymphoma account for 50-60% of all GIT lymphomas and 50% of which are of MALT type and the rest are usually diffuse large B-cell lymphoma type.

To develop gastric MALT lymphoma, acquisition of mucosa associated lymphoid tissue is required. Helicobacter Pylori infection leads to recruitment of host B and T cells together with neutrophils to the gastric mucosa and form MALT. Bacterial products like ammonia, leads to polyclonal multiplication of B-cell in face of antigenic stimulation. This leads to DNA translocation in some B-cells (as t(11:18)). At this stage eradication of H. pylori causes tumor regression. Later events as t(1;14)(p22;p32) leads to independent multiplication and loss of sensitivity to H. pylori.

Patients with gastric lymphoma may present with abdominal pain, nausea, anorexia, weight loss, vomiting or bleeding. Approximately, 20% may present with bleeding and 2% with perforation.

Investigations include computerized tomography, Barium swallow and upper gastrointestinal endoscopy. Tissue diagnosis by endoscopy or endoscopic ultrasound guided biopsy is needed to detect specific markers on malignant cells by immunohistochemistry (as CD20 and cytokeratin).

Eradication of *H. pylori* is considered as the first line and single treatment modality in patients with low grade gastric MALT lymphoma in clinical stage IE. Treatment failure may be attributed to the extent of the disease and to progression into antigen independent phase. In low-grade lymphoma, *H. pylori* eradication is preferred before the start of chemotherapy or radiotherapy but not as a single treatment regimen. For advanced disease, i.e., stage III and IV, combined chemotherapy and radiotherapy is superior since surgery is associated with failure of complete resection and significant morbidity and mortality.

The role of surgery is restricted to the treatment of complications, such as occlusion, bleeding or perforation. Preventive surgery is sometime advocated in bulky tumours, when rapid tumour necrosis secondary to chemo-/radiotherapy may be associated with a high risk of life threatening complications. Surgery is also required for removal of residual disease after medical debulking.

Intestinal lymphomas account for 30% of all primary gastrointestinal lymphomas and 20% of all small intestinal malignancies.

Intestinal lymphomas may be of B-cell type (60- 70%), T-cell type (20- 30%) or immunoproliferative small intestinal disease (IPSID).

The patient may present with pain, anorexia, diarrhea or weight loss, with obstruction and perforation is more common than in gastric lymphoma.

The majority of small bowel lymphomas are represented by B-large cell lymphomas. Surgery or radiotherapy are equally effective in the early stage of MALT lymphomas, while chemotherapy is the main treatment for large B-cell lymphomas and advanced stage of MALT lymphomas. In locally advanced lymphomas of the small bowel, surgical resection is indicated during laparotomy/laparoscopy for tumours of undefined histology or complicated by intestinal occlusion, bleeding, and perforation. Surgery may be advocated before chemotherapy in bulky lesions in order to prevent bowel perforation.

In the colon-rectum localization, the MALT lymphomas are more common. The large intestinal lymphomas have the same protocols as for the small intestine. In these cases the surgical approach is represented by the segmental resection of the colon, or a local excision for rectal tumours.

T-cell lymphomas in stage I and II best treated with combined treatment with primary systemic conventional-dose anthracycline-containing chemotherapy which may or may not be followed by radiation therapy is used. The role of surgery is limited to debulking or resection of masses with high-risk of obstruction or perforation noting that resection should be complete with microscopically negative margins for better prognosis. In advanced stage (stage IV) chemotherapy is the main treatment. However T-cell lymphomas have poor prognosis as they are often diagnosed in advanced stages, multifocal and have poor response to chemotherapy.

So, surgery lost its leading role, becoming the treatment of choice only in acute complicated cases or in the prevention of chemotherapy and/or radiotherapy related complications secondary to rapid tumour necrosis. The

aim of preventive surgery is to reduce the high incidence of severe morbidity and mortality due to an emergency laparotomy in highly compromised patients. In the past this risk was overestimated and a surgical management was more frequently advocated. Therefore surgery must be reserved to a very selected patients.

Besides treatment, careful follow up with endoscopy, biopsies and clinical staging including endoscopic ultrasonography is necessary.