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Clinical aspects of gastrointestinal lymphoma

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ABSTRACT

Teguh Aryandono, Taufiq Nugroho, Ahmad Ghozali – *Aspek klinis limfoma gastrointestinal.*

Diagnosis sebagian besar limfoma gastrointestinal hanya dapat ditegakkan dengan laparotomi. Duapuluh empat penderita limfoma gastrointestinal primer diteliti. Penderita dikelompokkan menurut umur, jenis kelamin, keluhan, adanya simtom B (demam, penurunan berat badan, dan keringat malam), lokasi tumor, tindakan bedah, diagnosis histopatologis menurut International Working Formulation, dan terapi.

Dari 16 orang penderita laki-laki, umur antara 6,5 - 76 tahun dengan rerata 44,7 tahun, lama keluhan pada 10 penderita tidak lebih dari 6 bulan, hanya terdapat 8 penderita dengan simtom B.

Lima belas penderita dengan keluhan massa pada abdomen, 5 dengan gangguan pola pencernaan, 4 dengan obstruksi, dan sakit perut pada 10 penderita. Biopsi laparotomi dikerjakan pada 16 penderita dan reseksi hanya dapat dikerjakan pada 6 penderita. Dua penderita dilakukan apendektomi karena gejala yang mirip dengan apendisitis. Menurut International Working Formulation, 17 penderita dengan derajat keganasan sedang, 5 dengan derajat keganasan tinggi dan 2 dengan derajat keganasan rendah. Hanya 9 penderita mendapat kemoterapi dengan siklofosfamid, vinkristin dan prednisolon dan hanya 3 penderita mendapatkan 3 siklus atau lebih kemoterapi.

Key Words : gastrointestinal lymphoma – laparotomy – chemotherapy – working formulation.

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INTRODUCTION

Primary Gastrointestinal Lymphoma is the most prominent case of extranodal lymphomas.[1,2,3] Stomach and small intestine are the most commonly affected sites, whereas lymphomas in the colon and rectum are rare.[2]

The clinical manifestations of gastrointestinal lymphoma are usually not specific. Most of patients are experienced with abdominal pain, abdominal mass, diarrhea, blood in stools, or sometimes signs of obstruction.[2,3]

An examination of tumor using sonogram, CT scan, plain abdomen or lymphangiogram proved to be unspecific for the diagnosis purposes, but sometimes barium enema gives the characteristic findings, such as narrowing of the lumen, a filling defect, a mass lesion, ulceration or irregularity of the mucosa. Sometimes the colonoscopy biopsy gives the definitive diagnosis.[2] Unfortunately, most of the diagnosis of gastrointestinal lymphoma could only be established by laparotomy.

Some classifications of Non Hodgkin Lymphoma have been introduced, such as by Rappaport, Kiel, Lukes, but International Working Formulation classification has been widely used presently, in which the grade of malignancy played an important role. The disease is staged according to modification of Ann Arbor, and in the early stage (I E) surgery or surgery plus chemotherapy or radiotherapy gives the same survival rate.[2,3] Other advantages of surgery such as resection for prevention of perforation during the course of chemotherapy, also gives good palliative effect in case of obstruction.[4]

The aim of this study is to know better the clinical behaviour of gastrointestinal lymphoma, its treatment and results, because the disease gives non specific complaints and when diagnosis was established, the patients were already in late stage.

MATERIALS AND METHODS

A retrospective study was carried out involving patients with gastrointestinal lymphoma. These patients came from one general and two private hospitals within five years (1990 - 1994). From 25 patients, there were only one patient with Hodgkin lymphoma from private hospitals within five years (1990 - 1994) and 24 patients with Non-Hodgkin Lymphoma. The patient with Hodgkin's Disease was excluded from the study.

Clinical data were collected from medical records. Confirmation of histopathological results were made according to the International Working Formulation by the staff from the Department of Pathology.

Patients were grouped according to sex, age , duration of complaints, chief complaint, with or without B symptom (fever, weight loss, and night sweating), surgical treatment (resection or biopsy), location of tumors, histopathological findings and the grade of malignancy, and also the post-surgical chemotherapy.

RESULTS AND DISCUSSION

Distribution according to age and sex

From 24 patients there were 16 men and 8 women, ranged from 6.5 to 76 years old with median age 44.7 years old. The distribution according to age and sex and others are shown in TABLE 1.

TABLE 1 shows that our study had the same age and ratio with those from western countries, but patients from Taiwan were younger than those from Indonesia. These data also demonstrate that greater incidence was found in men than women.

Symptoms and additional investigations

Most patients had symptoms less than 6 months (10 patients, 41,66%), while 8 patients between 6 and 12 months. Six patients could not mention the duration of symptoms because it was not specific. Since there was no specific symptom, patients were treated without proper treatment. Eight patients (33,33%) came with B symptoms. According to Hossfeld & Weh,[5] B symptoms appeared in 33% of patients with Hodgkin Disease, but were frequently found in patients with Non Hodgkin Lymphoma. B symptom has been found to worsen the prognosis.

The main symptom was abdominal mass in 15 patients (62.5%) and abdominal pain in 10 patients (41,66%). TABLE 2 shows the symptoms and signs of this study compared to other studies.

TABLE 2. shows that the most striking symptom was abdominal pain in other studies, while from our study was abdominal mass (62.5%). This study also demonstrated that 4 patients (16.66%) came with abdominal obstruction.

The routine blood and liver function examination were done on our patients. In addition, chest and plain abdominal x-ray were also performed.

TABLE 1. – Distribution of patients with gastrointestinal lymphoma according to age and sex

	This study	Hwang et al, Taiwan (1992)	Regional - Japan	Western countries
No. of patients	24	16	135	109
Age (yr)				
Mean	44.7	34.1	51.9	46
Range	6.5-76	3.5-76	3 - 83	3 - 82
Sex				
M:F	16:8	13.3	99.36	68:41
Ratio	2	4	2.7	1.7

TABLE 2. – Distribution of patients with gastrointestinal lymphoma according to symptoms and signs

	This study	Hwang et al, Taiwan (1992)	Literatures (Hwang et al 1992)
No. of patients	24	16	114
Abdominal pain (%)	41.66	75	65
Diarrhea (%)	8.33	50	31
Body weight loss(%)	33.33	37.5	51
Bleeding(%)	8.33	25	38
Vomiting (%)	20.83	19	46
Change of bowel habits(%)	20.83	6.3	52
Abdominal mass (%)	62.5	43.8	20
Obstruction (%)	16.66	–	–

Surgery

All 24 patients underwent surgical intervention. Two patients underwent appendectomy since the symptom was mimicking appendicitis, and pathological findings showed a Non Hodgkin Lymphoma. Laparotomy biopsy was done in 16 patients, and only six patients underwent surgical resection (right hemicolectomy for tumors in colon ascendens, transversum and terminal ileum). Most cases were unresectable tumors (66.66%). The study by Hwang *et al.*[2] in Taiwan showed that 87.5% cases were resectable (14 out of 16 patients). It seemed that our patients came in late stage, and some patients with abdominal obstruction.

Regarding the location of tumors, exact location could only be determined in 11 patients. The other 13 patients showed "frozen abdomen". From the 11 patients, four had tumors in the colon ascendens, 2 in appendix, 2 in ileum, and 1 tumor in the colon transversum, rectum and jejunum. Primary gastric lymphoma was not found in our series, while in Japan and western countries it was frequently found.

Histopathological results

At present the diagnosis of Non Hodgkin Lymphoma was determined by the morphology, immunophenotype characteristics and molecular genetics.[6] Because of limited facilities, the diagnosis of NHL of our series was only determined by morphological features. The International Working Formulation Classification was used, while reports by Laennert, Lukes and Rappaport were also included. From 24 patients, 17 with intermediate grade of malignancy, while 5 patients with high grade and 2 patients with low grade. From 17 patients with intermediate grade, 8 patients with malignant lymphoma, diffuse, large cell cleaved. From 5 patients with high grade of malignancy, 4 patient with lymphoblastic and one with Burkitt's Lymphoma. The study of Hwang *et al.*[2] showed that 50% of cases were intermediate grade of malignancy.

Postsurgical chemotherapy

Only 9 patients received postsurgical chemotherapy with cyclophosphamide (750 mg/m^2), and vincristine (1,4 mg/m^2) was given intravenously at day 1, and prednisolone (60 mg/m^2) orally on day 1 - 5. From 9 patients, only two patients completed 6 cycles of chemotherapy, 1 patient with 3 cycles and 6 patients with 1 or two cycles of chemotherapy. Fifteen patients did not receive chemotherapy because of their poor conditions, died postoperatively and most of them could not afford it. From two patients with 6 cycles of chemotherapy, one died after the last course and one patient lost to follow up after the tumor shrank. Three patients died postoperatively, one of them died of cerebral stroke.

CONCLUSION

From 24 patients with gastrointestinal lymphoma, most of them were men, with ratio 2:1 to women. Mean age was 44.7 years old. Fifteen patients experienced abdominal mass (62.5%) and obstruction could be found in 4 patients (16.66%). Diagnosis could only be established by laparotomy, and since most of them were in

advanced stage, resection could only be done in six patients (25%). No primary gastric lymphoma was found in our series, and four tumors were located in colon ascendens. Most of the patients had intermediate grade of malignancy. Nine patients received chemotherapy, but only two patients completed six courses of chemotherapy. Three patients died postoperatively.

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