Gastrointestinal and Hepatobiliary Manifestations in Systemic Lupus Erythematosus

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Objective: *To report GI and Hepatobiliary manifestations in SLE from Chulalongkorn Hospital in the year 2000.*
Material and Method: *A retrospective study of SLE patients in the Rheumatological Clinic, Medical Department, Chulalongkorn University.*
Results: *A total 225 SLE patients were found being mainly female (93.3%). The mean age was 32.13 ± 11.65 years and they almost all lived in the central part of Thailand (79.1%). At diagnosis, the majority of SLE cases are active vital organ (72.1%), kidney and central nervous system are the main organ of involvement. GI and hepatobiliary manifestations were found in 32.89% but did not lead to SLE diagnosis. The duration between SLE diagnosis and first GI and hepatobiliary manifestations is 4.6 ± 4.4 years. The 3 common manifestations are abnormal liver function test, diarrhea and abdominal pain, with the prevalance rate of 34, 17 and 11% respectively.*
Conclusion: *GI and hepatobiliary manifestations of SLE patients in Chulalongkorn Hospital were found in 32.89% but were not specific and could be found in any part of the alimentary tract. The 3 common manifestations were abnormal liver function tests, diarrhea and abdominal pain which were not specific enough to diagnose SLE.*

Keywords: *GI and hepatobiliary manifestations, SLE*

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Systemic Lupus Erythematosus (SLE) is a kind of immunological by mediated disease consisting of multiple organs involvement. According to the American College of Rheumatology (ACR)[1], the diagnosis will be made, if 4 of 11 criteria are found. Nevertheless, alimentary system is not a recognized criterion nor a major organ involvement. Gastrointestinal (GI) and hepatobiliary manifestations can commonly be found in some periods of SLE course or sometime they can be the first problem for diagnosis of SLE or side effect of drugs used[2-4].

GI and hepatobiliary manifestations in SLE were first reported by William Osler 100 years ago. He said that 11 patients came with erythema exudativum multiforme with abdominal crisis[2]. Since then, cases have been reported repeatedly. Here is the report of GI and hepatobiliary manifestations in SLE cases from Chulalongkorn Hospital in the year 2000.

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Material and Method

This is a retrospective study of SLE patients in the Rheumatological Clinic, Medical Department, Chulalongkorn University in the year 2000. All data was collected from both outpatient and inpatient records.

Diagnostic criteria of SLE depended on ACR[1]. Severity of SLE was classified as (1) Active vital: severe manifestation and involves the major organs such as kidney, central nervous system, cardiovascular and hematologic. (2) Active non-vital: severe manifestation and involves non-major organs. (3) Non active non-vital: non-severe manifestation and involve non-major organs. (4) Non active residual: non-severe manifestation and with residual disease such as arthritis, deformity of joint etc. Data analyse were reported in percentage, mean, median, and standard deviation.

Results

225 SLE patients are presented and almost all were female 93.3% (210 persons). Their mean age was 32.13 ± 11.65 years (range 16-64 years) and most of them lived in the central part of Thailand (79.1%), as in Table 1.

Average duration of SLE since diagnosis was 5.70 ± 4.85 years. Most cases of SLE were in the active vital group (72.1%), main vital organs were the kidney and central nervous system. Almost all patients (87.1%) had various antinuclear antibodies such as speckle, speckle + peripheral and mixed types 28.06, 12.76 and 12.76% respectively, as in Table 2. Main medical treatment was steroid or endoxan 46.2 and 38.6% respectively.

From all the SLE patients, GI and hepatobiliary manifestations were recorded in 74 cases (32.9%) but they were not the leading problem for SLE diagnosis. Mean duration from SLE diagnosis to first GI and hepatobiliary manifestation was 4.6 ± 4.4 years (median 2.5 years, range 3 months-20 years). The common GI and hepatobiliary manifestations were abnormal liver function test, diarrhea and abdominal pain, the prevalances were 34, 17 and 11% respectively in Table 3.

The cause of abnormal liver function test was not known because of negative or incomplete workup. Some were caused by viral hepatitis A and drugs. In cases of hepatitis, the enzymes were elevated 2-4 times (SGOT 179.5 U/L, SGPT 128.3 U/L).

Most diarrheal cases were acute form, of unknown etiology, and improved with symptomatic treatment.

Abdominal pain is quite common and some important causes can be identified. 4 cases were due to 4 acute pancreatitis (36.36%), 1 gastritis, 1 gastric ulcer with gastritis, and 5 cases of unknown etiology.

Discussion

225 SLE patients were recruited from both in and out patients, their data were analysed retrospectively. Most of the cases were females and young. They resided in the central part of Thailand. Average duration since SLE diagnosis was 5.70 ± 4.85 years. Most of the cases were the active vital group (72.1%). The main treatment was steroids and steroids plus endoxan (84.8%).

Prevalence of GI and hepatobiliary manifestation was 32.89% which is comparable to other Western reports[3-6] but higher than previous Thai data in 1983 and 1989[7,8]. Average time from SLE diagnosis

Table 1. Patients's data base (n = 225)

Sex (percentage)	
Female	210 (93.3)
Male	15 (6.7)
Age (median) (years) ± SD	32.13±11.65 (31)
Domicile (percentage)	
Central (Bangkok = 84 cases)	178 (79.1)
Northeastern	22 (9.8)
Northern	13 (5.8)
Southern	6 (2.7)
No data	6 (2.7)
Average time for SLE diagnosis (years)	5.70±4.85 (1 month-24 years)
Activity of SLE (percentage) (n=225)	
1. Active vital	163 (72.1)
1.1 Kidney	83 (36.8)
1.2 CNS	12 (5.3)
1.3 AIHA	7 (3.1)
1.4 CVS	1 (0.4)
1.5 Kidney + CNS	19 (8.4)
1.6 Kidney + AIHA	10 (4.4)
1.7 Kidney + CVS	5 (2.2)
1.8 CNS + CVS	3 (1.3)
1.9 Kidney + CNS + AIHA	6 (2.7)
1.10 Kidney +CNS + CVS	1 (0.4)
1.11 Non-specific	16 (7.1)
2. Active non-vital	25 (11.1)
3. Non active residual	10 (4.4)
4. Non active non-vital	15 (6.7)
5. No data	12 (5.3)

CNS: Central nervous system, CVS: Cardiovascular system, AIHA: Autoimmune hemolytic anemia

Table 2. SLE data and treatment

	n (%)
Antinuclear antibody (n = 225)	
Positive	196 (87.1)
Negative	16 (7.1)
No data	13 (5.8)
Type of ANA (n = 196)	
Speckle	55 (28.06)
Peripheral (rim)	13 (6.63)
Homogeneous	6 (3.06)
Homogeous + speckle	14 (7.14)
Homogeous + peripheral	11 (5.61)
Speckle + nucleolar	1 (0.51)
Speckle + peripheral	25 (12.76)
Mixed	25 (12.76)
No data	46 (23.47)
Previous and ongoing treatment (n = 225)	
Steroid	104 (46.2)
Endoxan (oral or intravenous form)	2 (0.9)
Steroids + endoxan	87 (38.6)
Steroids + NSAIDS	8 (3.5)
Steroids + azathioprine	4 (1.8)
No data	17 (7.6)

Table 3. GI and hepatobiliary manifestations and their etiologies in SLE patients (n = 74)

Symptom and sign	Event	Etiology
Sore throat	1	Oral ulcer 1 case
Dysphagia	2	GERD 1 case, Esophageal ulcer 1 case
Nausea/vomiting	2	Unknown etiology 2 cases
Dyspepsia	2	Unknown etiology 2 cases
Abdominal pain	11	Pancreatitis 4 cases, Gastritis 1 case, Gastritis + PU 1 case, Unknown etiology 5 cases
Diarrhea	17	Sepsis related 4 cases, Unknown etiology 13 cases
Upper GI bleeding	9	Gastritis 3 cases, Esophagitis 2 cases, PU 1 case, Unknown etiology 3 cases
Lower GI bleeding	4	Unknown etiology 4 cases
Occult GI bleeding	1	Unknown etiology 1 case
Jaundice	2	Sepsis related 2 cases
Hepatomegaly	3	Unknown etiology 3 cases
Splenomegaly	1	Unknown etiology 1 case
Ascites	8	Serositis 1 case, Unknown etiology 7 cases
Abnormal liver function test	34	HAV 1 case, Drug induced 1 case, Unknown etiology 32 cases
Other	3	
Total	100	

GERD: Gastroesophageal reflux disease, PU: Peptic ulcer, HAV: Hepatitis A virus

to first GI and hepatobiliary symptoms was 4.6 $\pm$ 4.4 years (median 2.5 years, range 3 months-20 years).

Pathogenesis of GI and hepatobiliary manifestation in SLE can be separated into 3 groups: 1) Related to disease activity and severity of SLE. 2) Related to complications of treatment. 3) Unrelated to disease activity, severity and treatment. Some manifestations could not be explained.

GI and hepatobiliary manifestations in the presented cases were similar to those in previous Thai reports. They were unspecific and could be found in all parts of the alimentary tract. The three most common manifestations were abnormal liver function tests, diarrhea, and abdominal pain which could not lead to SLE diagnosis. These findings are different from other Thai data which were nausea, vomiting, anorexia, abdominal discomfort, and pain leading to SLE diagnosis (10%).

Abnormal liver function tests were found in 30-60% especially high liver enzyme levels without symptoms. The most abnormal liver function test was elevated enzyme which was not more than 4 times[9-12] with mild, non-specific histology [13] supposed to be from SLE itself or medical treatment the same as the presented data.

Hepatomegaly was found in 10-32% from the Western data[12] and 15-35% from previous Thai data[7,8]. Most cases were mildly enlarged, non-tender and they always have normal liver function tests.

Diarrhea was found in 7.6% which is similar to the Western data[9,14-16]. Most cases were acute form, non-specific, and improved with symptomatic treatment.

Acute abdomen was uncommon in the present study. The main etiology (36.36%) was pancreatitis (1.8%) which was less than the Western data (3-4% of SLE cases)[17-22].

Acute abdomen needs early assessment due to difficulty in making diagnosis and life threatening severity. SLE patients always receive steroids and become compromised hosts which are prone to acute pancreatitis, bowel perforation, or ischemia[23-27]

Ascites were found 8-11% of SLE cases and complicated with nephrotic syndrome from lupus nephritis or serositis (lupus peritonitis)[28] which is more than in the presented data (3.6% of SLE patients).

Most non-specific GI and hepatobiliary manifestations in the present study were from unknown causes and they improved with symptomatic treatments.

Conclusion

GI and hepatobiliary manifestations of SLE patients in Chulalongkorn Hospital were found in 32.89% and were non-specific and were found in all parts of the alimentary tract. The 3 common manifestations were abnormal liver function tests, diarrhea, and abdominal pain which did not lead to SLE diagnosis. However, GI and hepatobiliary symptoms are always important problems and challenge the doctors.

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ความผิดปกติของระบบทางเดินอาหารและตับในผู้ป่วยเอสแอลอี

สมชาย เหลืองจารุ, พินิจ กุลละวณิชย์

วัตถุประสงค์*: เพื่อรายงานความผิดปกติของระบบทางเดินอาหารและตับในผู้ป่วยเอสแอลอี โรงพยาบาลจุฬาลงกรณ์ ปี พ.ศ. 2543*

วัสดุและวิธีการ*: ศึกษาข้อมูลย้อนหลังของผู้ป่วยเอสแอลอี คลินิกโรคข้อ ภาควิชาอายุรศาสตร์ จุฬาลงกรณ์มหาวิทยาลัย*

ผลการศึกษา*: ผู้ป่วยเอสแอลอี 225 ราย ส่วนใหญ่เป็นเพศหญิง ร้อยละ 93.3 อายุเฉลี่ย 32.13 $\pm$ 11.65 ปี ร้อยละ 79.1 อาศัยอยู่ในภาคกลาง ร้อยละ 72.1 มีอาการในอวัยวะสำคัญโดยเฉพาะไตและระบบประสาทส่วนกลาง ในผู้ป่วยเหล่านี้พบความผิดปกติทางระบบทางเดินอาหารและตับ 74 ราย ร้อยละ 32.89 แต่ไม่ใช่อาการนำมาสู่การวินิจฉัยโรคเอสแอลอี ระยะเวลาระหว่างการวินิจฉัยโรคเอสแอลอีและความผิดปกติครั้งแรกในระบบทางเดินอาหารและตับ 4.6 $\pm$ 4.4 ปี ความผิดปกติที่พบบ่อยได้แก่ การตรวจการทำงานของตับผิดปกติ อุจจาระร่วงและปวดท้อง คิดเป็นร้อยละ 34, 17 และ 11 ตามลำดับ*

สรุป*: ความผิดปกติทางระบบทางเดินอาหารและตับของผู้ป่วยเอสแอลอีพบได้ร้อยละ 32.89 แต่เป็นอาการไม่เฉพาะเจาะจงและสามารถพบได้ในส่วนใดส่วนหนึ่งของระบบทางเดินอาหาร โดยความผิดปกติที่พบบ่อยได้แก่ การตรวจการทำงานของตับผิดปกติ อุจจาระร่วงและปวดท้องซึ่งไม่เป็นอาการนำมาสู่การวินิจฉัยโรคเอสแอลอี*