

An uncommon indication for liver transplantation: toxic epidermal necrolysis

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To the Editor,

TEN (Toxic Epidermal Necrolysis) is an immunologically mediated disease characterized by life-threatening extensive vesicubullous eruption and mucous membrane involvement. Gastrointestinal and hepatic system involvement may be observed (1,2). The purpose of this letter is to highlight the possibility of encountering acute liver failure necessitating transplantation in patients with TEN.

A 23-year-old male patient with no known medical history or drug usage presented to our hospital with rash, jaundice, and diarrhea starting three days after being bitten by an insect. The patient, who had a mean arterial pressure of 55 mmHg, a pulse rate of 50 beats per minute, and a respiratory rate of 28 breaths per minute upon examination, and demonstrated somnolence, was admitted to our intensive care unit (ICU). The patient exhibited jaundice, and extensive confluent erythema with more pronounced involvement on the face, neck, and trunk, along with Nikolsky-positive bullae throughout

ments for 3 days, along with supportive therapies. The patient had profuse diarrhea, occurring 8-10 times per day, which began before admission and persisted in the ICU. Following treatments, significant improvement was observed in the patient's skin and mucosal lesions, and the daily frequency of defecation decreased. The patient's level of consciousness fully recovered, however, the abnormalities in jaundice and liver-related laboratory tests persisted (Table 1). The microscopic examination of stool was normal, with no evidence of parasites and no microorganism identified in cultures. The serological and microbiological tests conducted to elucidate the etiology of liver failure were normal. In control hepatobiliary ultrasound examination, the liver dimensions were enlarged, and the parenchyma exhibited heterogeneity. Additionally, there was an increase in echogenicity in the periportal areas, and the intrahepatic bile ducts were dilated. On the 15th day of ICU admission, the patient, whose acidosis was improved and hemodynamics were normal but liver failure persisted, was transferred to the hepatology clinic for transplantation preparation.

Table 1. — Laboratory values of the patient

	Admission	Day 1	Day 5	Day 14	Day 30
AST (< 35 U/L)	1632	826	106	85	281
ALT (< 50 U/L)	1263	1363	560	97	269
D.Bil. (<0.3 mg/dL)	5.5	6	7.1	13.8	16.5
I.Bil. (<0.9 mg/dL)	1	1.7	2.4	3.8	6
ALP (53-128 U/L)	159	157	150	217	576
GGT (< 73 U/L)	81	74	203	79	170
INR (0.8-1.2)	2	1.6	1.3	1.5	1.8
ALB (32-48 g/L)	36	33	19	23	25

AST: aspartate aminotransferase, ALT: alanine transaminase, D.Bil.: direct bilirubin, I.Bil.: indirect bilirubin, ALP: alkaline phosphatase, GGT: gamma-glutamyl transferase, INR: international normalized ratio, ALB: albumin.

the entire body. The patient also had mucositis present in the eyes and oral cavity.

The patient had metabolic acidosis, with elevated levels of serum transaminases, bilirubin, and INR (International Normalized Ratio) detected in laboratory investigations. The ultrasonographic examination of the liver was normal. The patient was diagnosed with Toxic Epidermal Necrolysis (TEN) and liver failure. The patient received intravenous (IV) methylprednisolone (250 mg/day) and immunoglobulin (3 g/kg/day) treat-

TEN, which affects multiple systems extensively, often occurs through medications, and rarely through other triggers (3). While no pharmacological treatment with

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proven efficacy has been identified yet, systemic steroids, immunoglobulin, cyclophosphamide, and plasmapheresis may be utilized in treatment (3,4). Our patient had no history of drug use, but complaints started after an insect bite. Due to the severe clinical condition and widespread lesions, we administered steroid and immunoglobulin therapy, and observed significant improvement in the lesions after treatment.

Symptoms of gastrointestinal system involvement, asymptomatic elevation of liver enzymes, and liver failure may occur in association with TEN, but serious clinical problems are not frequently expected (1,2). With the emergence of lesions, acute liver dysfunction or hepatitis cases can be observed; however, it is known that liver failure requiring transplantation is rare (3,5). Our patient was hospitalized with liver failure, hepatic encephalopathy improved but the signs of failure did not resolve. The patient underwent transplantation due to TEN-associated liver failure. In conclusion, while liver dysfunction is expected in cases of TEN, rarely, liver failure necessitating transplantation can also be observed. The extent of hepatic involvement in patients should be closely monitored, and such patients should be evaluated in conjunction with a gastroenterologist.

Conflict of interest

All authors declare that there is no conflict of interest and funding is none.

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