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A Rare Complication after Liver Biopsy; Septic Shock Secondary to Hemobilia

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Author's contribution

The sole author designed, analysed, interpreted and prepared the manuscript.

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Letter to the Editor

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Dear Editor

The percutaneous liver biopsy is an important tool used in the diagnosis of liver diseases. Mortality is 0.015%, morbidity is 0.29%. The most common complication is bleeding. Infectious complications are extremely rare [1]. Transient bacteremia has been observed in 6 to 14 percent of patients Hemobilia is the least common of the hemorrhagic complications[2]. Septicemia and shock can rarely occur in patients secondary to the hemobilia [3,4].

A 45-year-old white female patient was referred to the gastroenterology outpatient clinic due to liver enzyme elevation and abdominal Ultrasonography (USG) in which it appeared to be compatible with chronic liver disease. She's been using 400 mg of amisulpride with high renal excretion for 20 years due to psychosis. She hasn't had an attack of psychosis in 15 years. The patient had no complaints other than malaise. She did not have ascites and splenomegaly on her physical examination. In the laboratory tests, AST: 39 U/L, ALT: 25U/L, GGT:160U/L, ALP: 156U/L, total bilirubin: 0.6 mg/dL, PTZ (INR): 0.9, albumin: 3.8 mg/dL, viral markers (HBs Ag, Anti HCV) negative, autoimmune markers (ANA, Anti LKM1, ASMA and AMA) negative; ferritin: 25ng/mL, serum iron, serum iron-binding capacity ratio normal, ceruloplasmin: 29 mg/dL and 24-hour urine copper: 31 microgr/day, and Kayser-Fleischer ring negative in Slit-Lamp Examination. Abdominal USG showed that liver parenchyma heterogeneous, left lobe and caudate lobe hypertrophic, intra- and extra-hepatic bile ducts and spleen were normal.

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Liver biopsy was performed with a disposable fully automatic needle in aseptic conditions by interventional radiology accompanied by USG from the right lobe of the liver for etiological diagnosis. There was no pain after the procedure, blood pressure and pulse follow-up were normal, 2nd and 4th hours hemogram was normal. Twelve hours after the procedure, she was consulted with infectious diseases and interventional radiology due to 39 ^{o}C fever and tachycardia. There was no evidence of bleeding on the abdominal ultrasonography, the bile ducts could not be clearly seen. A full urinalysis and two-sided chest x-ray scans were normal. CRP 93 mg/L, WBC 7400 K/microliter, left shift was present. Contrast-enhanced abdominal CT scan was taken due to patient's blood pressure was 80/50 mmHg, pulse 140/min, fever 38°C, and lethargia. After the dilatation of the choledochal and intrahepatic bile ducts seen CT scan, emergency ERCP was performed in 16th hour after biopsy. A blood clot was seen in the papilla, the common bile duct was 10 mm, the sphincterotomy was performed and the clot was retrieved using a balloon, 7 F 10 cm plastic stent was place (Figure 1). Methicillin-resistant staphylococcus aureus and pseudomonas aeruginosa were cultured from the blood, and Meropenem 2 gr/day and Vancomycin 1 g therapy were given. Biopsy pathology evaluation revealed bile ductus proliferation and single lymphocytes around the ductus. The patient had no fever in the follow-up, CRP regressed, her general condition improved. Antibiotic treatment was completed in 14 days and she was discharged.

Liver biopsy is a safe procedure with low mortality and morbidity rate. Although temporary bacteriemia can be seen in 2-13% after liver biopsy, but clinically obvious infection is extremely rare [1,2]. In a retrospective analysis of 68,000 cases, the risk of infectious complications after the biopsy was observed in one per ten thousand, hemobilia development rate was 6 per hundred thousand and observed only in 4 patients [5]. Urgence endoscopic extraction of hemobilia is required in these patients [6,7].

In previous case reports in the literature, there are diseases that may cause cholangitis such as underlying coledochojejunostomy in patients who develop an infection after biopsy [1]. However, there was no cholangitis before biopsy in patient's clinic or laboratory.

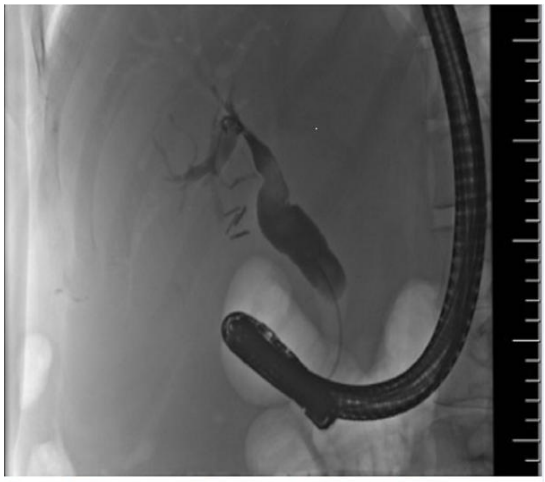

FİGURE 1: The common bile duct was 11-12 mm and filling defect distally patient's scopy image in ERCP

Early diagnosis and treatment of infectious complications after liver biopsy are required. In our case, the elimination of the clot with early ERCP was life-saving in the patient with septic shocksymptoms. This complication that develops after liver biopsy should be kept in mind.

CONSENT

As per international standard or university standard, patient's written consent has been collected and preserved by the author(s).

ETHICAL APPROVAL

As per international standard or university standard written ethical approval has been collected and preserved by the author(s).

COMPETING INTERESTS

Author has declared that no competing interests exist.

REFERENCES

1. Claudi C, Henschel M, Vogel J, Schepke M, Bıecker E. Fulminant sepsis after liver biopsy: A long forgotten complication? World J Clin Cases. 2013 Apr 16;1(1):41-3.
2. Le Frock JL, Ellis CA, Turchic JB, Zawacki JK, Weistein L. Transient bacteremia associated with percutaneous liver biopsy. J Infect Dis. 1975;131 Suppl:S104-7.

3. Reddy KR, Schiff ER. Complications of liver biopsy. In: Gastrointestinal emergencies, 2nd ed, Taylor, Gollan, Steer, Wole (Eds), Williams & Wilkins, Baltimore. 1997;959.
4. Berrya R, Hanb JY, Kardashianc AA, LaRussod NF, Tabibiane JH. Hemobilia: Etiology, diagnosis, and treatment. Liver Res. 2018;2(4):200–208.
5. Piccinino F, Sagnelli E, Pasquale G, Gıusti G. Complications following percutaneous liver biopsy. A multicentre retrospective study on 68,276 biopsies. J Hepatol. 1986; 2(2):165-73.
6. Cox EF. Hemobilia following percutaneous needle biopsy of the liver. Arch Surg. 1967;95(2):198-201.
7. Prata MF, Bonilha DR, Correia LP, Paulo FA. Obstructive jaundice caused by hemobilia after liver biopsy. Endoscopy. 2008;40(Suppl 2):E265-6.

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