Near-fatal hemorrhagic shock after endoscopic ultrasound-guided liver biopsy

Endoscopic ultrasound (EUS)-guided liver biopsy with a 19-gauge fine-needle aspiration (FNA) needle is safe and provides excellent diagnostic yield [1-4]. Post-procedural bleeding is a well-known complication of liver biopsy [5]. Although it is reasonable to assume that similar complications may arise after EUS-guided liver biopsy, no complications of this nature have been reported thus far.

We present a case of hemorrhagic shock after EUS-guided liver biopsy. A 60-year-old man with no medical history was hospitalized with painless jaundice and severe dehydration of 2 weeks’ duration. Liver tests showed cholestasis (bilirubin 859 μmol/L). The serum creatinine was 1165 μmol/L. Gallstones were noted on abdominal ultrasound, with no dilated ducts and no portal hypertension. EUS was performed to evaluate the cholestasis further. After biliary obstruction had been excluded, transgastric EUS-guided liver biopsy was performed with a standard 19-gauge needle (EchoTip; Cook Medical, Bloomington, Indiana, USA). Three passes were executed with a “wet-stylet” technique. The platelet count was 83,000/mm², and the international normalized ratio (INR) was 1.2.

In most institutions, the post-procedural recovery time for EUS is approximately 60 minutes. However, it is customary to keep patients under observation longer with bed rest for 2 to 4 hours after they undergo percutaneous liver biopsy [5]. Given the complication of bleeding reported here, we now monitor patients for 4 hours after EUS-guided liver biopsy – as is done according to protocols for percutaneous liver biopsy.

In conclusion, EUS-guided liver biopsy can result in severe bleeding. Post-biopsy surveillance should be adjusted accordingly. Platelet dysfunction induced by renal failure may also have contributed to the bleeding and might be considered a relative contraindication to EUS-guided liver biopsy.

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References

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