Gastric intramural hematoma caused by endoscopic ultrasound-guided fine-needle biopsy

A 75-year-old man was referred to our hospital for endoscopic ultrasound-guided fine-needle biopsy (EUS-FNB). He had no remarkable medical history and was not receiving anticoagulant therapy. Laboratory testing revealed a normal platelet count and coagulation profile. A mass in the pancreatic tail had been noted on computed tomography at a previous hospital. Because autoimmune pancreatitis was suspected from the imaging studies, we used a 19-gauge needle (EchoTip ProCore; Cook Medical, Bloomington, Indiana, USA;) for EUS-FNB of the pancreatic tail mass, which was conducted via the gastric wall without suction. Sustained bleeding at the puncture site was observed after the first needle pass ( ) ( ) ( ) ( ). A dark blue bulge was also observed around the puncture site in the gastric wall. We diagnosed puncture site bleeding and gastric intramural hematoma. After endoscopic band ligation of the point of bleeding ( ) ( ) ( ), hemostasis was achieved, and enlargement of the intramural hematoma ceased. Computed tomography revealed gastric wall thickening and no hematoma in the retroperitoneal cavity. Esophagogastroduodenoscopy revealed fish scale-like mucosa around the band ligation site on the day after endoscopic band ligation ( ) ( ). Severe bleeding requiring blood transfusion or endoscopic treatment as a complication of endoscopic ultrasound-guided fine-needle aspiration of a pancreatic mass is rare [1,2]. Gastric intramural hematoma is also rare and is described most commonly in association with coagulopathy, peptic ulcer disease, trauma, or microaneurysms [3]. Reported cases of gastric intramural hematoma following endoscopic procedures are very rare [4]. To our knowledge, this is the first report of gastric intramural hematoma as a complication of EUS-FNB. The gastric intramural hematoma is considered to have occurred because the ProCore reverse bevel injured submucosal vessels. However, no other cases of gastric intramural hematoma following EUS-FNB with a ProCore needle have been reported. Additional cases are needed to clarify whether EUS-FNB with a

ProCore needle is associated with gastric intramural hematoma.

Endoscopy_UCTN_Code_CPL_1AL_2AD

Competing interests: None

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DOI <http://dx.doi.org/10.1055/s-0034-1390867>
Endoscopy 2014; 46: E666
© Georg Thieme Verlag KG
Stuttgart · New York
ISSN 0013-726X

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Fig. 1 Tip of the EchoTip ProCore biopsy needle. The reverse bevel length is 4 mm.

Fig. 2 Upper gastrointestinal endoscopy reveals sustained bleeding from the puncture site and a dark blue bulge around the puncture site after the first needle pass of an endoscopic ultrasound-guided fine-needle biopsy.

Fig. 3 Endoscopic band ligation of the point of bleeding.

Fig. 4 Upper gastrointestinal endoscopy reveals fish scale-like mucosa around the band ligation site on the day after the procedure.