Endoscopic and percutaneous ultrasound-guided thrombin and glue injection in a pseudoaneurysm of the right hepatic artery

Laparoscopic cholecystectomy is complicated by bile duct injuries in 0.6%–0.8% of cases [1]. The injury is categorized as complex if it is located above the confluence or if it is associated with vascular injury. Isolated vascular injuries, such as hepatic artery pseudoaneurysms (HAPs), after laparoscopic cholecystectomy are rare, but may occur in 25% of patients who suffer bile duct injuries [2]. HAPs have a clinically unpredictable course with varied presentation [3]. We present a case of complex bile duct injury that presented as obstructive jaundice and hemobilia due to a pseudoaneurysm of the hepatic artery after laparoscopic cholecystectomy.

A 30-year-old woman had undergone a laparoscopic cholecystectomy 1 month previously. She developed biliary peritonitis and was admitted to hospital, where an ultrasound showed dilatation of the bile duct and percutaneous transhepatic biliary drainage (PTBD) was performed. She improved clinically and remained stable. However, 10 days later, she presented to us with fever and jaundice for 15 days, abdominal distention, plus hematemesis and melena for 2 days. The biliary drainage catheters were found to be blocked and the PTBD catheter had stopped draining 48 hours previously. Investigations revealed a hemoglobin of 5.2 g/dL and total bilirubin of 17.6 mg/dL. An abdominal ultrasound showed a left subhepatic collection of 9 × 5 cm and a pseudoaneurysm of 4.5 × 2.1 cm in close vicinity to the hepatic artery. The PTBD catheter was removed in view of its misplacement and an ultrasound-guided percutaneous catheter was placed to provide drainage. After the patient had been resuscitated, a computed tomographic angiogram (Fig. 1) confirmed the presence of a pseudoaneurysm of the right hepatic artery. Endoscopic and percutaneous ultrasound-guided interventions were performed to manage the complex bile duct injury and obliterate the pseudoaneurysm of the right hepatic artery (Video 1).

Selective hepatic arterial angiography and embolization is the first-line treatment for HAP. Complications include technical failure to catheterize the artery, spillover embolization of other arteries, risk of hepatic ischemia, and bile duct
striction secondary to ischemia [4]. As an alternative, endoscopic ultrasound-guided injection of selected visceral pseudoaneurysms has been described and this may be done in HAPs if the anatomy is favorable and the expertise available.

Endoscopy_UCTN_Code_CPL_1AK_2AI

Competing interests

The authors declare that they have no conflict of interest.

The authors

Ashlee Sidhu, Nagoor Basha Shaik, Malay Sharma

Aryavart Hospital, Meerut, Uttar Pradesh, India

Corresponding author

Ashlee Sidhu, MD
Aryavart Hospital, NH334, Daurala Sugar Mills, Meerut, Uttar Pradesh – 250110, India
ashlee2907@gmail.com

References


Bibliography

DOI https://doi.org/10.1055/a-1085-9371
Published online: 2020
Endoscopy
© Georg Thieme Verlag KG
Stuttgart · New York
ISSN 0013-726X

ENDOSCOPY E-VIDEOS
https://eref.thieme.de/e-videos

Endoscopy E-Videos is a free access online section, reporting on interesting cases and new techniques in gastroenterological endoscopy. All papers include a high quality video and all contributions are freely accessible online.

This section has its own submission website at https://mc.manuscriptcentral.com/e-videos