Adenomatous polyps of the gallbladder are precancerous lesions, which require preventive cholecystectomy. Because polypoid lesions of the gallbladder cannot undergo biopsy before surgery, the requirement for excision is usually assessed from only clinical and radiologic findings. The current indications for resection of a gallbladder with polypoid lesions include size exceeding 1 cm, occurrence of lesions in old age, sessile polyps and accompanying gallstones, or symptoms such as abdominal pain.

However, on the basis of current indications, surgery rarely reveals adenomatous polyps; most cases are cholesterol polyps. In particular, in polyps measuring between 1 and 2 cm, the positive predictive value for neoplastic polyps is very low (23.3%). This suggests that approximately 80% of cholecystectomy procedures are unnecessary for polyps of this size. Therefore, cumulative evidence is needed to increase the diagnostic rate or positive predictive value for adenomatous polyps. One method for attempting to diagnose gallbladder polyps before surgery has been EUS-guided fine-needle biopsy (EUS-FNB). Case series of EUS-fine-needle aspiration (EUS-FNA) for gallbladder cancer have been reported. To date, FNB has rarely been attempted for gallbladder polyps. This may be attributable to the difficulty in puncturing a noninflamed gallbladder, which has a surrounding fibrotic capsule. Certain areas are also technically inaccessible to the needle. Vertical access to the gallbladder wall and quick advancement of the needle may allow puncturing of the wall.

Here, we report 2 cases of EUS-FNB of gallbladder polypoid lesions, successfully performed using 22-gauge needles (Acquire, Boston Scientific Corp, Marlborough, Mass, USA) (Video 1, available online at www.VideoGIE.org). Written informed consent was previously obtained from the patients.

Patient 1 was an 83-year-old woman who was admitted with right-upper quadrant pain. CT of the abdomen showed 2 polypoid lesions in the gallbladder (Fig. 1A, B).

![CT view of abdomen showing 2 polypoid lesions in the gallbladder.](image1)

Figure 1. A, B, CT view of abdomen showing 2 polypoid lesions in the gallbladder. C, Histopathologic view after fine-needle biopsy showing low-grade dysplastic columnar epithelium, suggestive of a neoplastic polyp (H&E stain, orig. mag. ×40). D, Adenocarcinoma of gallbladder after extended cholecystectomy (H&E stain, orig. mag. ×40).
The sizes of the lesions were 20 mm and 17 mm. Although cholecystectomy was recommended owing to the high possibility of malignancy, the patient and her family preferred to avoid surgery if possible because of her age. EUS-FNB was, therefore, performed, and histopathologic examination revealed low-grade dysplastic columnar epithelium, suggestive of a neoplastic polyp (Fig. 1C). She subsequently underwent extended cholecystectomy with partial hepatectomy. After surgery, she received a diagnosis of gallbladder cancer (Fig. 1D).

Patient 2 was a 25-year-old man who was referred for a polypoid gallbladder lesion found incidentally on transabdominal US (TAUS) (Fig. 2A). EUS showed multiple polypoid lesions of various sizes, of which the largest measured 15 mm. EUS-FNB was performed; the histopathologic findings indicated that the polyp was lined by a single layer of columnar cells and had mucin-secreting glands without dysplastic cells (Fig. 2B). We, therefore, decided to follow up the patient without surgery. After 8 months, the gallbladder polypoid lesions had increased to 21 mm on TAUS (Fig. 2C). At that time, the patient wanted to undergo surgery owing to the possibility of an adenomatous polyp. He underwent laparoscopic cholecystectomy; histopathologic examination demonstrated the lesions to be cholesterol polyps (Fig. 2D).

Polyps of increasing size are more likely to be neoplastic, and surgical resection is recommended. However, as seen in patient 2, polyps increasing in size may be diagnosed as cholesterol polyps. Therefore, polyps found to be nonneoplastic on EUS-FNB may be followed up without surgery.

No adverse effects of EUS-FNA for gallbladder polypoid lesions have been reported.5,6 However, expected adverse effects include cholecystitis, bile peritonitis, and hemorrhage. Our patients experienced no adverse effects during EUS-FNB.

In the cases described here, EUS-FNB of gallbladder polypoid lesions was safe and helpful for clinical decision making.

**DISCLOSURE**

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