



*Session 6. Up-to-Date Information on Precancerous GB Lesions*

## **Role of EUS: Diagnostic reliability and usefulness for GB lesions**

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### **Curriculum Vitae**

1991	Graduated Chonbuk National University Medical School
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## **Role of EUS: Diagnostic reliability and usefulness for GB lesions**

Ultrasonography (US), since its development, has been used widely to evaluate gallbladder (GB) lesions. However, conventional US still have limitations in evaluating GB lesions because of the echoic reduction caused by fatty tissue of abdominal wall or cavity. Endoscopic ultrasonography (EUS) provides more precise and reliable information on the GB lesions than conventional US and computed tomography (CT) because of its high resolution which is achieved with a higher-frequency transducer. Furthermore, EUS can be easily applied to outpatients for differential diagnosis of GB lesions without significant complication or radiation hazard. The main limitations of EUS are difficulty of training and inter-observer variation. General indication of EUS could be suggested that evaluation of GB polyps and wall thickening, chronic cholecystitis and adenomyomatosis, and T-staging of GB cancer.

The incidental detection of gallbladder polyps (GBPs) is more frequently being reported as the use and the quality of US. Although the potential malignant risk of GBPs is low, premalignant or malignant GBP should be discriminated for the early detection and adequate treatment. For that, EUS could be a useful tool to inform the management more effectively. Several EUS factors such as size and shape of the polyp, echogenicity and homogeneity, internal echogenic or hypoechoic spots are suggested as factors lead to make a decision of cholecystectomy. Generally, cholecystectomy should be considered in any patient with a GBP of size of 10 mm or greater. For polyps of less than 10 mm, follow-up with US imaging should be carried out on a six monthly basis, for at least 2 years.

GB cancer has poor prognosis and is usually diagnosed at an advanced stage, with tumors having invaded adjacent organs, despite the absence of specific symptoms and signs. The differential diagnosis of malignant and nonmalignant GB wall thickening may be useful for selecting the appropriate surgical modality and prognosis can be improved by the early detection of malignant GB wall thickening. Wide use of EUS can be recommended due to its high specificity and accuracy for the differential diagnosis of neoplastic and non-neoplastic GB wall thickening and the diagnostic power could be improved by the appropriate application of some EUS variables, such as the degree of GB wall thickness and the internal echogenicity of thickened wall. Contrast-enhanced EUS also offer improved diagnostic accuracy for the malignant GB polyps and GB wall thickening. For the patient with highly suggested GB cancer, EUS has some role, especially for the evaluation of the depth of invasion (T-staging) to choose appropriate operative procedure.

### **References**

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