13.1 Introduction

EUS-FNA is the commonest intervention performed through the EUS endoscope. Mass lesions or enlarged lymph nodes in the mediastinum, retroperitoneum and pancreas or in the gut wall require tissue diagnosis to plan optimum treatment strategies. EUS-FNA was first described by Vilmann et al. in 1992 [1].

13.2 Indications

To obtain tissue diagnosis from various lesions in the gastrointestinal tract.

13.3 Equipment

13.3.1 Endoscope

The linear convex array echoendoscope (EG-530UT, Fujifilm Inc., Japan or other linear echoendoscope from other manufacturers) is used to perform EUS-FNA.
13.3.2 Needles

Standard EUS-FNA needles are available from many manufacturers and come in various sizes – 19G, 22G and 25G (Echotip and Echotip Ultra™, Cook Endoscopy, Winston-Salem, USA; Sonotip™ I and II, Mediglobe GmBH, Germany; Expect™, Boston Scientific Corporation, Natick, Massachusetts, USA). The QuickCore™ and Procore™ (19G, 19 and 22G respectively; Cook) are available for core biopsies. The 22G needle is commonly used to perform FNA.

Needles come in a range of options for the stylet – ball tipped or sharp, and protruding or flush with the tip.

13.3.3 Other Material

Pathology glass slides, fixative, containers for transport of clot, tissue and other material in appropriate preservative solutions.

Presence of an onsite cytopathologist is a desirable but not mandatory requirement. If present, the endoscopy suite should be equipped with the required instrumentation – microscopes, staining materials, etc.

13.4 Technique

The technique of EUS-FNA has been standardized over the last two decades. Variations may exist between operators and when FNA is performed in different anatomical locations. We describe here the standard FNA technique applicable in most situations. Specific variations are dealt with in the respective chapters.

13.4.1 Salient Points of Patient Preparation

1. Confirm normal coagulation profile and patient is advised to withhold anticoagulation medication.
2. Antibiotics are not routinely recommended but should be administered to patients with high risk of post procedure infection – those with cystic lesions for FNA, valvular heart defects or cardiac implants.

13.4.2 Locating the Lesion for FNA and Positioning the Endoscope

1. Locate the lesion on linear EUS.
2. Activate the on-screen guide of the needle track of the FG-530UT and SU-7000 on the ultrasound screen (seen as two diverging green dotted lines). The needle path follows the upper dotted line during the FNA. The lower dotted line marks the maximum vertical movement that may be achieved by using the elevator.