

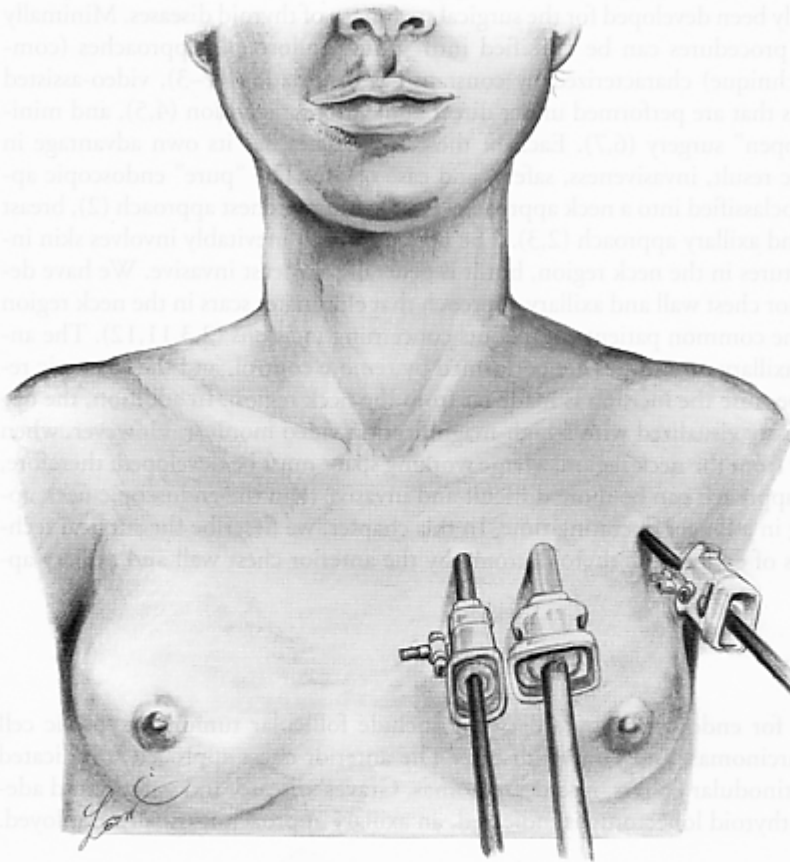
## PREOPERATIVE EVALUATION

The preoperative diagnosis is established by a combination of clinical presentation, thyroid function tests, fine-needle aspiration (FNA), and high-resolution ultrasonography. Whenever ultrasonography suggests a microcarcinoma (i.e., punctate calcifications), an ultrasound-guided FNA is used to help establish the diagnosis. Preparation for Graves' disease is the same as for open surgery.

## OPERATIVE TECHNIQUE

### Hemithyroidectomy via the Anterior Chest Approach

Under general anesthesia, the patient is placed in the supine position with the neck extended. A 12-mm skin incision is made in the chest about 5 cm below the inferior border of the ipsilateral clavicle, and the lower layer of the platysma is opened. A 12-mm trocar is inserted through the incision, and a purse-string suture is placed at the site to prevent gas leakage and trocar slippage from the wound. Carbon dioxide is then insufflated up to 4 mm Hg, and a flexible laparoscope (Fujinon Inc., Tokyo, Japan) is inserted through the trocar. Two additional 5-mm trocars are inserted under endoscopic guidance, one below the sternal notch and the other below the ipsilateral clavicle (Fig. 7.1). The anterior border of the sternocleidomastoid muscle (SCM) is dissected from the sternohyoid muscle, and a space is created between the sternohyoid muscle and the sternothyroid muscle (Fig. 7.2). The thyroid gland is exposed by dividing the sternothyroid muscle. The lower pole of the thyroid is retracted upward, and the middle thyroid vein is divided with laparo-



**Fig. 7.1.** Anterior chest approach. After making a 12-mm median skin incision for insertion of a flexible laparoscope, two additional 5-mm trocars are inserted into the subcutaneous tissue about 5 cm below the inferior border of the ipsilateral clavicle. (Illustration by Leon Sakuma.)