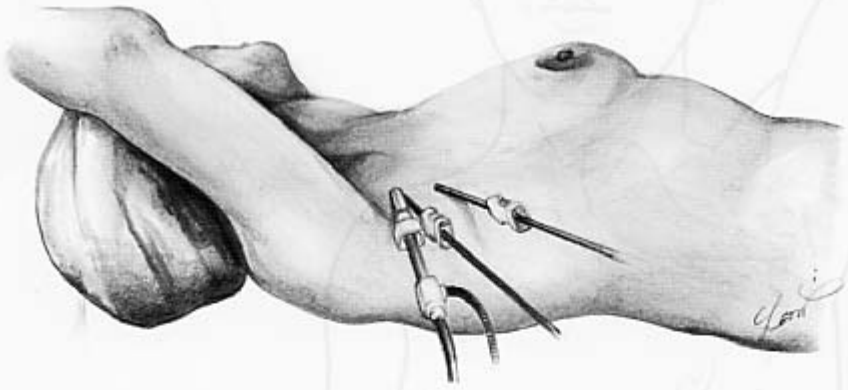

Fig. 7.6. Axillary approach. After making a 30-mm skin incision for the flexible laparoscope, an additional 5-mm trocar is inserted near the 30-mm skin incision in the axilla. (Illustration by Leon Sakuma.)

The anterior chest approach minimizes the invasiveness of the operation. The area of dissection from the anterior chest to the anterior border of the SCM and the ipsilateral sternohyoid muscle is minimized because panoramic exposure is obtained by contrast gas insufflation. Furthermore, a contralateral lobectomy can be performed by adding two additional trocars below the contralateral clavicle.

Hemithyroidectomy via the Axillary Approach

Under general anesthesia, the patient is placed in the supine position with the neck slightly extended. The arm ipsilateral to the nodule is raised, and the axilla is completely exposed (Fig. 7.6). A 30-mm skin incision is made in the axilla, and the lower layer of the platysma is exposed. This dissection under the skin is performed with long forceps. A 12-mm and a 5-mm trocar are inserted through the incision, and a purse-string suture is placed to prevent gas leakage and trocar slippage from the wound. Carbon dioxide is then insufflated to 4 mm Hg, and a flexible laparoscope is inserted through the trocar. After an adequate dissection space has been created, one additional 5-mm trocar is inserted near the 30-mm skin incision in the axilla. Endoscopic scissors are used for additional blunt and sharp dissection to enlarge the subplatysmal space (Fig. 7.7). The anterior border of the SCM is dissected from the sternohyoid muscle, and a space is created between the sternohyoid and sternothyroid muscles (Fig. 7.8). The thyroid gland is exposed by dividing the sternothyroid muscle at the upper pole. The upper pole of the thyroid is thoroughly explored from the lateral side. The thyroid tissue is grasped and retracted toward the operating surgeon, and the perithyroid fascia of the upper pole is separated from the cricothyroid muscle so that the external branch of the superior laryngeal nerve is left intact. The superior pole pedicle is ligated with the ultrasonic scalpel or with endosurgical clips. The lower pole of the thyroid is elevated upward and dissected away from the adipose tissue and cervical thymus with the ultrasonic scalpel. The lateral side of the thyroid is then retracted medially to enable the perithyroid fascia to be cut with the endoscopic scissors or ultrasonic scalpel, taking special care not to injure the recurrent laryngeal nerve. If the parathyroid gland has been identified, it is also left intact. The recurrent laryngeal nerve, which is exposed peripherally, is visualized embedded in Berry's ligament, posterior to the cricothyroid muscle, before the nerve enters the larynx (Fig. 7.9). Berry's ligament is carefully severed with a clip or the ultrasonic scalpel. The thyroid is then dissected from the trachea to complete the hemithyroidectomy.