From the earliest days of endocrine surgery, the knowledge, experience, and technical ability of the endocrine surgeon have been paramount determinants of outcome. The development of radionuclide imaging, computed tomography (CT) scans, and magnetic resonance imaging have provided increasingly detailed pictures, and radioimmunoassays and high performance liquid chromatography have provided more sophisticated biochemical measurements. However, the preoperative and intraoperative judgment of the experienced surgeon continues to be the cornerstone of success.

In recent years, CT scans of the abdomen have identified adrenal pathology that was not seen before. Fortunately, most of these lesions are “incidentalomas” and do not require surgical treatment. Judgment and experience have allowed us to establish criteria of tumor size of 5 cm or greater and/or evidence of endocrine function to identify those individuals who actually require surgical intervention.

Refinements in parathyroid hormone (PTH) assay allowing the measurement of intact PTH both preoperatively and intraoperatively provide technical adjuncts to our diagnostic capabilities. However, careful exploration of the neck remains as the sine qua non of an excellent outcome.

New scanning agents, such as sestamibi for parathyroids, continue the series of imaging modalities that are reputed to improve and simplify care of the patient with parathyroid disease. While perhaps simplifying the operative strategy, these imaging modalities remain dependent on the knowledge, skills, and technical ability of an endocrine surgeon to turn images into uncomplicated surgical success.

Pathologists have an expanded inventory of antibodies and markers to identify hormones in endocrine organs. While this has enhanced our understanding of the diseases, the success of the intervention depends on the surgeon's recognition that endocrine tumors differ from other tumors. The fact that survival of differentiated carcinoma of the thyroid is predicted more by the patient's age than by the pathologic findings or even by lymph node involvement is unlike our experience with nonendocrine tumors. The fact that multiple glandular disease in hyperparathyroidism is most closely related to hereditary or metabolic problems is likewise a phenomenon of endocrine tumors that is not identified with other neoplasms. Most recently, laparoscopy has allowed a new avenue for approaching the adrenal gland. While prospective studies show only a small difference between outcomes with the posterior surgical approach to the adrenal gland vs the laparoscopic approach, laparoscopy clearly provides a new technology and a new window to the adrenal. But it is the combination of the expertise of the surgeon and the knowledge of when to use the technology that results in consistent, high quality results.

In this issue of Cancer Control, a sampling of manuscripts describing unusual types of endocrine disease is presented. These articles are not intended to minimize the importance of “bread and butter” endocrine problems, such as papillary carcinoma of the thyroid or solitary parathyroid adenoma. Rather, they are intended to provide the "spice" that stimulates a broadened interest in the entire field of endocrine surgery.

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