

Endocrine Surgery

UCLA Endocrine Surgical Unit brings leading experience and methodology to parathyroid disease treatment

The UCLA Endocrine Surgical Unit is the only surgical program in Southern California dedicated exclusively to thyroid, parathyroid and adrenal disease, offering an unrivaled level of experience and excellence along with the latest diagnostic and surgical methods and equipment.

Research confirms that experience counts when it comes to surgical treatment of parathyroid disease, with success rates of approximately 97 percent among experienced surgeons like those at UCLA, who perform in excess of 100 procedures annually, compared with rates of only 70 percent among less experienced surgeons. Similarly, diagnostic tests to locate diseased parathyroid glands are 90 percent accurate when performed by experienced multidisciplinary teams such as UCLA's, compared to 30 to 70 percent in less experienced hands.



(Left) Minimally invasive parathyroid surgery is performed through a 1.5 cm incision — about the size of a penny.
(Right) The same patient three months after surgery.

Parathyroid disease

The parathyroid glands — four sunflower-seed-sized glands located behind the thyroid gland — control the body's calcium levels. Primary hyperparathyroidism is characterized by excess parathyroid hormone (PTH), that is, high PTH levels in the presence of high or high-normal calcium levels. This ongoing pathologic process causes a net loss of calcium from the skeleton into the bloodstream and urine. Complications include kidney stones, osteoporosis, musculoskeletal pain, possible cardiovascular disease, and neuropsychiatric symptoms such as fatigue, anxiety, memory loss and depression.

The disease affects approximately 1 percent of the adult population, and occurs three times more often in women than men. The risk of parathyroid disease increases with age, particularly after age 55. About 3 percent of postmenopausal women have the disorder, often complicating bone density loss related to menopause.

Diagnosis and treatment

Elevated calcium levels related to parathyroid disease are typically detected during routine blood testing. Primary hyperparathyroidism can generally be diagnosed if calcium and intact PTH levels are both elevated. Parathyroid sestamibi scan and ultrasound are the two most useful tests in diagnosing parathyroid adenomas — benign

(over)

tumors of the parathyroid glands that often cause primary hyperparathyroidism — though the sensitivity of these tests is highly operator-dependent.

Increased understanding of the multiple adverse health effects of primary hyperparathyroidism has prompted national expert groups to recommend parathyroid surgery for all patients in whom the biochemical diagnosis has been established. About 85 percent of patients suffer from single-gland parathyroid disease, and up to 90 percent of those are eligible for minimally invasive parathyroid surgery, which is associated with faster recovery and less scarring.

At UCLA, a minimally invasive procedure typically lasts less than 30 minutes and involves a scar measuring 1.5 centimeters — the diameter of a penny — that is hidden within natural skin folds. Intra-operative PTH measurements can determine success of the procedure within minutes of removal of the diseased gland. Virtually all patients are discharged from the hospital within 23 hours of admission.

Myths about parathyroid surgery

Myth: Radio-guided parathyroid surgery improves outcomes. Multiple independent studies have demonstrated no benefit from usage of the gamma probe, leading to abandonment of the technique by nearly all expert centers. UCLA surgeons favor the use of pre-operative and intra-operative ultrasound, which provides accurate anatomic real-time imaging of the parathyroids.

Myth: Many patients are too elderly and/or frail to be candidates for parathyroid surgery. In its modern form, parathyroid surgery is very well tolerated and carries few complications. Studies show that elderly patients enjoy the same benefits from successful parathyroid surgery that younger individuals do.

Myth: There is no standard definition of “minimally invasive” parathyroid surgery. Though many centers may claim to offer minimally invasive procedures, only a minority truly meet objective criteria for the technique. The term “minimally invasive” is reserved for parathyroid surgery involving an incision measuring less than 2.5 cm in length. At UCLA, an incision length of 1.5 centimeters is used.

Contact information

For more information, for consultation, or to refer a patient, call:

310-206-0585 Information and appointment scheduling

310-825-0189 Fax

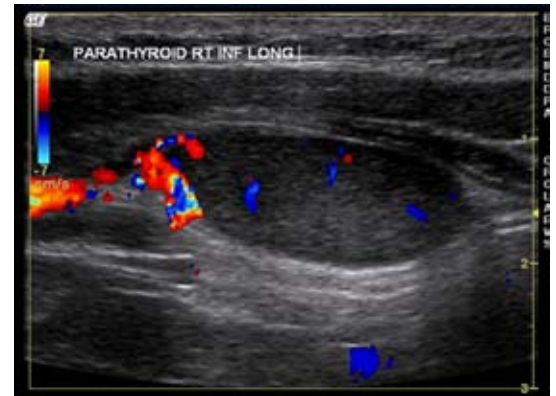
Additional information is available at our website:

<http://www.endocrinesurgery.ucla.edu>

Participating physicians

Michael Yeh, M.D. – director, endocrine surgery

Christiaan Schiepers, M.D. – nuclear medicine



Ultrasound scan showing an oval-shaped parathyroid adenoma and its blood supply. Surgeon-performed ultrasound is highly sensitive and is used to guide operative strategy.