Integrated approach now offered for children with thyroid problems

Factors that increase the risk of thyroid cancer

There are various types of pediatric thyroid cancer, and while the causes are still under investigation, several factors are known to increase a child’s risk, including family history, rare genetic syndromes and exposure to high levels of medical or environmental radiation. Within this final category are children who have been treated with radiation for other types of cancer, such as lymphoma.

“Between birth and age 15, the thyroid is extremely vulnerable to radiation,” says Michael W. Yeh, MD, FACS, professor of surgery and medicine at the David Geffen School of Medicine at UCLA. “As a consequence, thyroid problems, including thyroid cancer, are the leading late effect of childhood cancer treatment.”

“Biopsies of thyroid nodules spare children without cancer unnecessary surgery, while directing those with cancer to the appropriately aggressive intervention,” explains Harvey K. Chiu, MD, associate professor in the Division of Pediatric Endocrinology. “The approach to pediatric thyroid cancer is a balance of the expected excellent prognosis with doing all that we can to minimize undesired consequences of therapy.”

Thyroid conditions that can affect children include thyroid inflammation, Graves’ disease and thyroid nodules, which are common in adults but rare in children, affecting fewer than six out of every 1 million children in the United States each year. Thyroid nodules are found to be cancerous about 20 percent of the time in children — four times more often than in adults. Although thyroid cancer is usually detected at a more advanced stage in children than in adults, and is more likely to spread and recur, the prognosis for children who receive early and appropriate treatment is excellent.

UCLA’s Pediatric Thyroid Program, which recently moved into a patient-centered integrated practice unit called the UCLA Endocrine Center, is one of the few centers in Southern California that specialize in the diagnosis, treatment and care of children with all types of thyroid problems, including thyroid nodules, thyroid cancer and other thyroid disorders.

The integrated practice model puts the entire team — including pediatric endocrinologists, surgeons and cytopathology technicians — in the same clinic, enabling patients and their families convenient and efficient access to a range of care. Doctors can confer about patients face-to-face in a collaborative atmosphere, leading to expedited decision making, which is especially important in the most complex cases. The office includes three ultrasound machines for convenient diagnosis.

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Biopsies can be done on site with a pathology technician on hand to immediately confirm the success of the procedure. When appropriate, surgeons are available to consult with families and discuss treatment plans.

**Advanced techniques and child-centered care**

Because thyroid nodules in children are often asymptomatic and too small to feel, children at risk of thyroid cancer should be evaluated at a high-volume center with expertise in advanced diagnostic and treatment techniques. UCLA’s pediatric endocrinologists deliver excellent, child-centered care using the most advanced techniques, such as needleless devices to deliver local anesthesia for outpatient biopsy procedures to minimize discomfort and enable children to resume normal activities the same day.

Our specialists have performed more than 250 fine-needle biopsies under ultrasound guidance, a state-of-the-art technique that allows for greater precision and more accurate diagnosis of suspicious thyroid nodules. Ultrasound-guided biopsies are superior to standard biopsy techniques and help avoid unnecessary surgeries along with potential complications such as injury to the vocal cords, surgical scarring and the need for lifelong hormone-replacement therapy.

If pathologists detect cancer cells, UCLA is one of very few centers that offer radioactive iodine therapy to children. When surgery is recommended, our highly skilled surgeons have access to the most advanced equipment and facilities at Mattel Children’s Hospital UCLA, which is ranked among the best in the nation.

UCLA’s Pediatric Thyroid Program physicians are pursuing new, cutting-edge care, including the potential use of genetic markers in detecting malignancies in pediatric thyroid cancer patients. Our specialists are also board-certified in both adult and pediatric endocrinology, enabling our team can provide patients with high-quality thyroid care into adulthood.