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Primary Hyperparathyroidism

Primary Hyperparathyroidism (PHPT), overactivity of the parathyroid glands, is the most common cause of hypercalcemia in an ambulatory patient. It gets more common with age, and may often be incidentally discovered on routine serum electrolyte testing in otherwise asymptomatic patients. The majority of cases are due to a parathyroid adenoma, which are usually benign tumors that form in proximity to the thyroid gland.

Over time, primary hyperparathyroidism may be detrimental to health for at least four main reasons:

- 1) May accelerate loss of calcium from bone, resulting in osteoporosis
- 2) May increase urinary calcium excretion, resulting in nephrolithiasis
- 3) May aggravate hypertension and possibly heart/vascular disease
- 4) May lead to mental confusion and psychiatric disturbances, notably depression

At Carolina Endocrine, we frequently evaluate whether hypercalcemia is due to PHPT, and then establish whether a patient should be referred to a parathyroid surgeon. Treatment of PHPT depends on the need for surgical intervention, which is usually curative. NIH consensus guidelines for surgical referral include:

- 1) Age <50
- 2) Serum calcium >1.0 mg/dL above upper range of normal
- 3) Nephrolithiasis
- 4) Creatinine clearance >30% below normal
- 5) Osteoporosis (T<-2.5), particularly that which is progressive

Surgery is also indicated in anyone in whom medical surveillance is not feasible or desirable. Cinacalcet (Sensipar®) is a medical treatment option for PHPT, however, this is infrequently prescribed except for patients who require therapeutic intervention, but are not candidates for surgery.

Laboratory studies commonly include the measurement of serum calcium, phosphorus, creatinine, and 24 hr urine calcium/creatinine. Vitamin D deficiency should be sought to rule out secondary hyperparathyroidism (an elevated PTH in the setting of a normal serum calcium).

At Carolina Endocrine, parathyroid ultrasound can often identify a parathyroid adenoma about two-thirds of the time. Parathyroid Tc99m sestamibi nuclear scans, though costly, can also successfully localize parathyroid tumors ~80-90% of the time, and confirm the pre-operative approach to surgical management. However, in instances where parathyroid scans are negative, parathyroid U/S-guided FNA biopsy with saline needle rinse wash-out is highly specific in identifying the identity of a parathyroid identified sonographically.

Announcing New Referral System!

Carolina Endocrine is proud to announce the use of Infina Connect's Intelligent Care Coordinator (ICC) system to ensure quick, complete and secure patient referrals. ICC automates current manual processes involved with patient referrals in order to streamline the process and ultimately improve patient care and convenience.

With ICC, practices can send, receive, monitor and track patient referrals all through a secure online portal. Intelligent Care Coordinator not only facilitates a seamless referral experience but also supports continuity of care through the ability to promptly exchange updated patient information.

Carolina Endocrine joins a network of local medical practices who are already utilizing ICC to work together in optimizing the quality of patient care offered in the Triangle.

Carolina Endocrine will continue to use faxable script pads for practices not on ICC. Contact our referral coordinator, Janice Stewart, if you'd like to learn more (919-571-3690).

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At Carolina Endocrine, experience and technology combine to offer highly specialized care in nondiabetes adult and pediatric endocrinology. We provide care for an array of thyroid, parathyroid, adrenal, pituitary, metabolic, reproductive, puberty and growth disorders through diagnostic and therapeutic modalities, most of which are available on site. Carolina Endocrine is proud to offer quality, convenient care to both children and adults.