Update on Growth Hormone Therapy of Children
Paulo Ferrez Collett-Solberg

Despite the fact that rhGH is available since 1985 there are several questions related to its use that remain unanswered. Entrez-PubMed search engine was used to conduct a review of publications, since 2007, addressing growth and growth hormone treatment.

Recent publications related to the diagnosis of GHD, genetics of growth, the use of rhGH in different genetic conditions, in idiopathic short stature, in puberty and strategies to adjust rhGH dose were reviewed. New studies investigating the genetics of growth and the response to rhGH therapy in different groups are helping in the understanding of the physiology of normal growth. Even though in most children treated with rhGH there is a short-term benefit, the clinical relevance of the benefits after long-term treatment in some conditions remains unclear. The challenges are to define milder forms of GH deficiency, to assess the relevance of the benefits, if any, caused by rhGH in different patient populations and the best therapeutic approach for these patients.

Well-designed long-term studies using anthropometric, genetic and laboratory data that will also assess long-term quality of life benefits are needed to help clinicians to select patients to initiate treatment with rhGH and to adjust treatment to improve outcome.

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Approach to the Pregnant Patient with Thyroid Cancer
Ernest L. Mazzaferri

Thyroid cancer, which is the most common endocrine malignancy, has been progressively increasing from 1972 through 2002, largely as the result of an increasing incidence of small papillary thyroid cancers, the majority of which are <2 cm that have increased almost 3-fold during the 30-year study. During this time, thyroid cancer was found to affect women more often than men by a ratio of almost 3 to 1. Moreover, papillary thyroid cancer was found to be the most common form of differentiated thyroid cancer among women of childbearing age, 10% of whom were either pregnant or in the early postpartum period when thyroid cancer was diagnosed. Although the prevalence of thyroid cancer in pregnant women remains high, most are first identified after delivery. Nonetheless, the management of thyroid cancer during pregnancy poses serious diagnostic and therapeutic challenges to both the patient and fetus. Thyroid gland may secrete more thyroid hormone than usual during early pregnancy, which may not only be the cause of this problem, but may be responsible for the higher rate of differentiated thyroid cancer during pregnancy. There is concern about therapy for thyroid cancer during this period, including the timing of surgery, the use of levotyroxine and the assessment of follow-up during gestation.

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The Prevalence of Occult Medullary Thyroid Carcinoma at Autopsy
Laticia A. Valle and Richard T. Kloos

Context: The prevalence of occult medullary thyroid carcinoma (MTC) in the general population is unknown but may be important when considering strategies to diagnose clinically relevant MTC in nodular goiter or other populations.

Objective: Our objective was to determine the prevalence of occult MTC in an autopsy series.

Design: We conducted systematic review of autopsy series from 1970 to present using a PubMed search.

Patients: The patients came from 21 countries, ages ranged from 6–95 yr, both genders were represented, and none had clinical evidence of thyroid disease before autopsy.

Intervention: Three series were excluded based on tumor size less than 500 μm, non-English language, or insufficient information.

Main Outcome Measure: Prevalence of occult MTC was calculated.

Results: An average prevalence of 0.14 and 7.6% for occult MTC and papillary thyroid carcinoma, respectively, was found among 7897 autopsies from 24 published series. Greater than 75% of patients with MTC were more than 60 yr old, and male to female ratio was comparable. Tumor size was virtually all subcentimeter, and there was no lymph node spread, extra-thyroidal extension, or distant metastases reported.

Conclusions: A small number of people in the general population, who do not have known thyroid disease, have occult MTC and die of other causes. This finding of untreated occult MTC without morbidity or mortality should be considered in population prevalence studies, when strategies to detect thyroid neoplasia are considered (e.g. serum calcitonin or ultrasound), and included in cost-effectiveness models of routine serum calcitonin screening for nodular thyroid disease.

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Cinacalcet HCl Reduces Hypercalcemia in Primary Hyperparathyroidism across a Wide Spectrum of Disease Severity
 Munro Peacock, J. P. Bilezikian, M. A. Bolognese, Michael Borofsky, Simona Scumpia, Lulu Ren Sterling, Sunfa Cheng, and Dolores Shoback

Context: Primary hyperparathyroidism (PHPT) is characterized by elevated serum calcium (Ca) and increased PTH concentrations.

Objective: The objective of the investigation was to establish the efficacy of cinacalcet in reducing serum Ca in patients with PHPT across a wide spectrum of disease severity.

Design and Setting: The study was a pooled analysis of data from three multicenter clinical trials of cinacalcet in PHPT.

Patients: Patients were grouped into three disease categories for analysis based on the following: 1) history of failed parathyroidectomy (n = 29); 2) meeting one or more criteria for parathyroidectomy but without prior surgery (n = 37); and 3) mild asymptomatic PHPT without meeting criteria for either above category (n = 15).