— S-209 —

Recent epidemiology of acromegaly in South Korea

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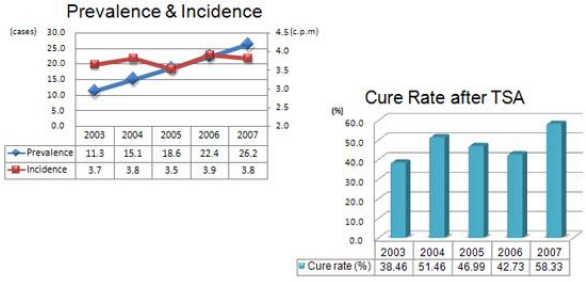
Objective: The authors present a retrospective analysis of the epidemiology of acromegaly in recent South Korean people. **Methods:** A retrospective review was performed in acromegaly patients who had been treated from 2003 to 2007 at 68 university hospitals in South Korea. **Results:** A thousand and two hundred ninety-eight patients were enrolled (54.3% women) with a mean age at diagnosis of 44.0±13.1 years. Reporting was maximal in 2006 (3.9 cases per million [c.p.m] inhabitants per year); prevalence had been increasing gradually, up to 26.2 patients per million inhabitants in 2007. The majority of patients (85%) underwent transsphenoidal approach operation, and if necessary, they were re-operated with gamma-knife surgery or received radiotherapy. From 2003 to 2007, data showed trend of increasing cure rate. **Conclusion:** In South Korea, the incidence of acromegaly is similar to that of other country, and the prevalence is lower but increasing recently. This is the first and largest study that analyzes the epidemiology of acromegaly from multicentre in South Korea.



— S-210 —

Characteristics of resistance to thyroid hormone (RTH) in Korea and a case of RTH with thyroid cancer

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Background: Resistance to thyroid hormone (RTH) is an autosomal dominantly inherited disorder. Diagnosis of RTH is quite difficult because of its rarity and variable clinical features. The objective of this study was to present a case of RTH with thyroid cancer and to define the clinical and genetic characteristics of RTH from Korea. **Methods:** We recently experienced a 38-year old woman with RTH who had incidental papillary thyroid carcinoma, and we searched the cases of RTH reported from Korea between 1990 and April 2008 by using PubMed and KoreaMed. Data retrieved from case reports were clinical characteristics and DNA sequence analysis for thyroid hormone receptor beta (TRβ). **Results:** A 38-year old Korean woman presented with elevated levels of serum total and free thyroid hormone but was clinically euthyroid. The thyroid stimulating hormone (TSH) level was not suppressed. Papillary thyroid microcarcinoma was detected in her diffuse goiter by ultrasonography - guided fine needle aspiration. She was diagnosed with generalized RTH by mutational analysis which revealed a missense mutation of M310T in exon 9 of the TRβ gene. Including our case, there have been ten cases of RTH published in Korea thus far. All patients presented with goiter, and four complained of palpitations. All had elevated thyroid hormones levels with an unsuppressed TSH level. Various mutations of the TRβ gene were detected in all but one case. Details of the ten published cases are described and summarized. **Conclusions:** The clinical and genetic characteristics of Korean patients with RTH are not different from that of other ethnicities. RTH is very rare and easily missed condition, but it must be considered in patients who present with goiter and elevated thyroid hormone levels with unsuppressed TSH. The association between thyroid cancer and RTH needs further study.