Introduction

This session provided a broad perspective on topics related to KIMS (Pfizer International Metabolic Database) and ACROSTUDY, the international noninterventional surveillance study open to all patients with acromegaly treated with the growth hormone antagonist pegvisomant. Martin Bidlingmaier from Ludwig Maximilian University in Munich, Germany, discussed the limitations of insulin-like growth factor (IGF)-I assays, focusing on the absolute IGF-I values obtained using different assays and the variability observed in a given assay method over time. The latter finding is important clinically because an assay that runs high or low may result in patient misclassification. Dr Bidlingmaier reviewed the many reasons for assay differences and concluded by emphasizing the importance of normative data in interpreting IGF-I results.

Vera Popovic-Brkic from the Institute of Endocrinology, University Clinical Center in Belgrade, Serbia, presented a novel mathematical model for multidimensional reference regions derived from IGF-I, IGF binding protein 2 and IGF binding protein 3 data [1]. Samples from healthy blood donors in Germany were used to establish 2- and 3-dimensional 95% regions specific for age, gender and body mass index to serve as reference data. If results of further studies support the validity of this model, it may change the determination of which patients have normal levels of growth hormone (GH) and related hormones [1].

Rolf Gaillard of the Centre Hospitalier Universitaire Vaudois in Lausanne, Switzerland, presented an analysis of patients from the KIMS database, providing new insight into mortality rates among adult hypopituitary patients. Patients on GH replacement have a standardized mortality ratio of 1.01, identical to the expected rate in healthy people. However, patients with lower IGF-I standard deviation scores showed higher mortality rates – indicating a statistically significant negative association between IGF-I standard deviation scores and mortality. Prof Gaillard noted the need for further study of this important topic. [Note: Dr Gaillard's presentation is to be published elsewhere.]

Thierry Brue from the Hôpital de la Timone, Assistance Publique Hôpitaux de Marseille in Marseilles, France, presented data from the ACROSTUDY international noninterventional surveillance study of patients with acromegaly treated with pegvisomant. Currently, data for nearly 700 patients from 10 countries are included in the database. Approximately 60–70% of patients with acromegaly are well controlled and have normal IGF-I levels at a mean dose of pegvisomant 21.5 mg/day. It is not yet clear whether the uncontrolled patients would have a normal IGF-I level if the pegvisomant doses were titrated higher; however, some patients do achieve control at higher doses. The safety analysis confirms that overall the treatment is well tolerated. Dr Brue noted the value of surveillance databases in understanding rare diseases.

Disclosure Statement

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Reference

- 1 Mattsson A, Svensson D, Schuett B, Osterziel KJ, Ranke MB: Multidimensional reference regions for IGF-I, IGFBP-2 and IGFBP-3 concentrations in serum of healthy adults. *Growth Horm IGF Res* 2008;18: 506–516.